

# King County, WA Housing Market Analysis

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Myrna Grace Calip

# Objective

Provide homeowners in Kings County, Washington on price expectations when trying to sell their home.

How much will their house sell based on the current conditions of their house?

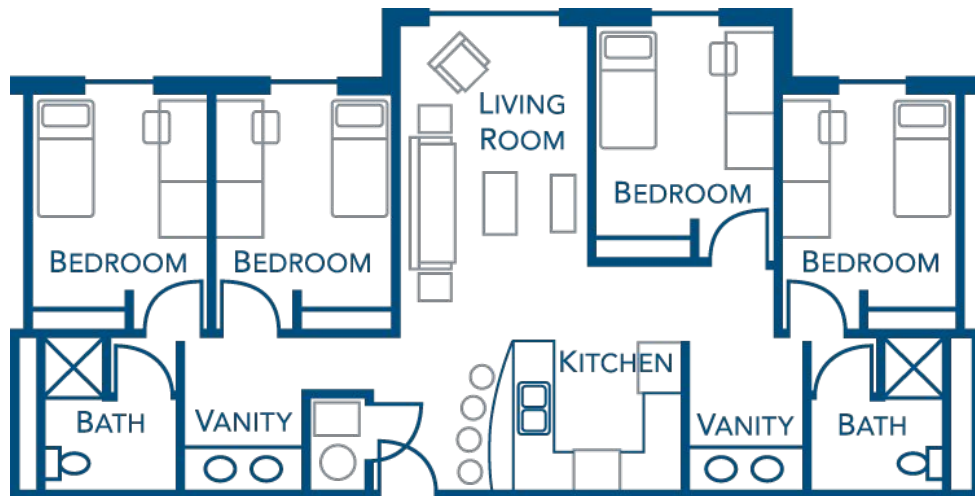


# Data

The data provided is from the King County House Sales from 2014-2015

We will be focusing on 93% of the given data in which it is set to:

- Price: \$78,000 - \$1,120,000
- House Square Footage of 370sqft to 4230sqft
- Bathrooms: .50 - 4.75
- Bedrooms: 1-6
- Floor Levels: 1-3



# Square Footage of Home

What to expect when you increase the Square Footage of your house?



Model:	OLS	Adj. R-squared:	0.825
Dependent Variable:	price	AIC:	386693.7146
Date:	2021-11-09 03:42	BIC:	387257.9472
No. Observations:	15135	Log-Likelihood:	-1.9327e+05
Df Model:	73	F-statistic:	980.9
Df Residuals:	15061	Prob (F-statistic):	0.00
R-squared:	0.826	Scale:	7.2690e+09

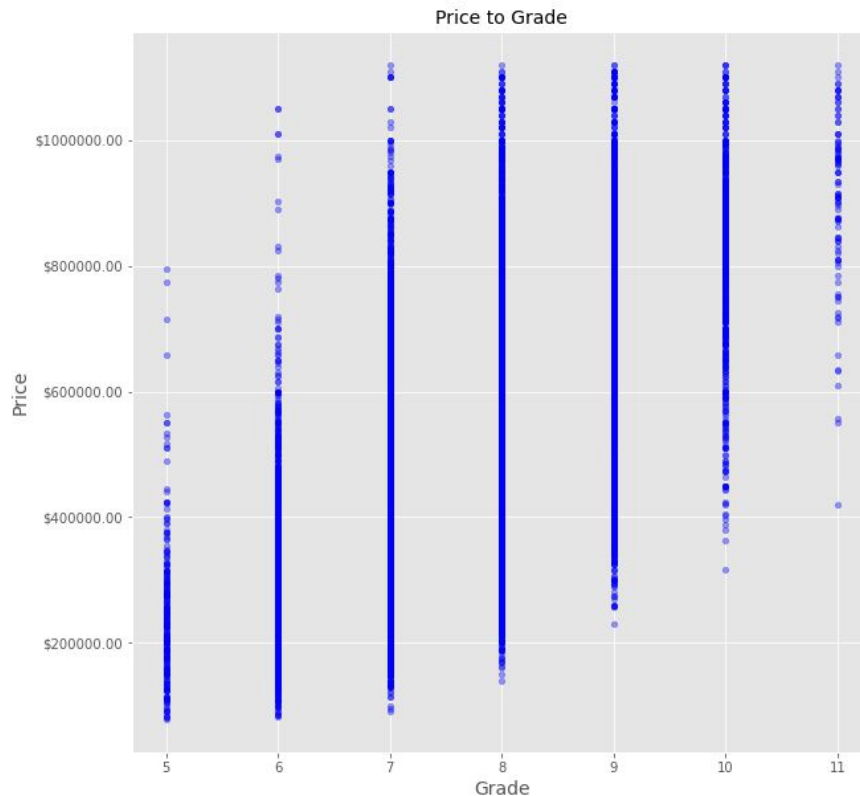
	Coef.	Std.Err.	t	P> t	[0.025	0.975]
const	301045.7170	2114.9422	142.3423	0.0000	296900.1734	305191.2607
bedrooms	-2678.6676	913.8026	-2.9313	0.0034	-4469.8317	-887.5034
bathrooms	4506.5697	1134.5291	3.9722	0.0001	2282.7548	6730.3846
sqft_living	98352.8756	1429.9525	68.7805	0.0000	95549.9949	101155.7564
sqft_lot	13104.8796	749.3012	17.4895	0.0000	11636.1582	14573.6010
floors	-14187.5161	1030.3203	-13.7700	0.0000	-16207.0691	-12167.9632
waterfront	7928.1720	752.0347	10.5423	0.0000	6454.0926	9402.2513
view	21711.0894	760.9415	28.5319	0.0000	20219.5516	23202.6272
condition	17203.8595	754.0592	22.8150	0.0000	15725.8119	18681.9071
grade	44660.3320	1129.1947	39.5506	0.0000	42446.9732	46873.6907

# Grade

1. How much will their house sell based on the current grade of their house?
2. What will happen if they improve their house grade?

## Residential Building Grades

Grades 1 - 3	Falls short of minimum building standards. Normally cabin or inferior structure.
Grade 4	Generally older low quality construction. Does not meet code.
Grade 5	Lower construction costs and workmanship. Small, simple design.
Grade 6	Lowest grade currently meeting building codes. Low quality materials, simple designs.
Grade 7	Average grade of construction and design. Commonly seen in plats and older subdivisions.
Grade 8	Just above average in construction and design. Usually better materials in both the exterior and interior finishes.
Grade 9	Better architectural design, with extra exterior and interior design and quality.
Grade 10	Homes of this quality generally have high quality features. Finish work is better, and more design quality is seen in the floor plans and larger square footage.
Grade 11	Custom design and higher quality finish work, with added amenities of solid woods, bathroom fixtures and more luxurious options.
Grade 12	Custom design and excellent builders. All materials are of the highest quality and all conveniences are present.
Grade 13	Generally custom designed and built. Approaching the Mansion level. Large amount of highest quality cabinet work, wood trim and marble; large entries.



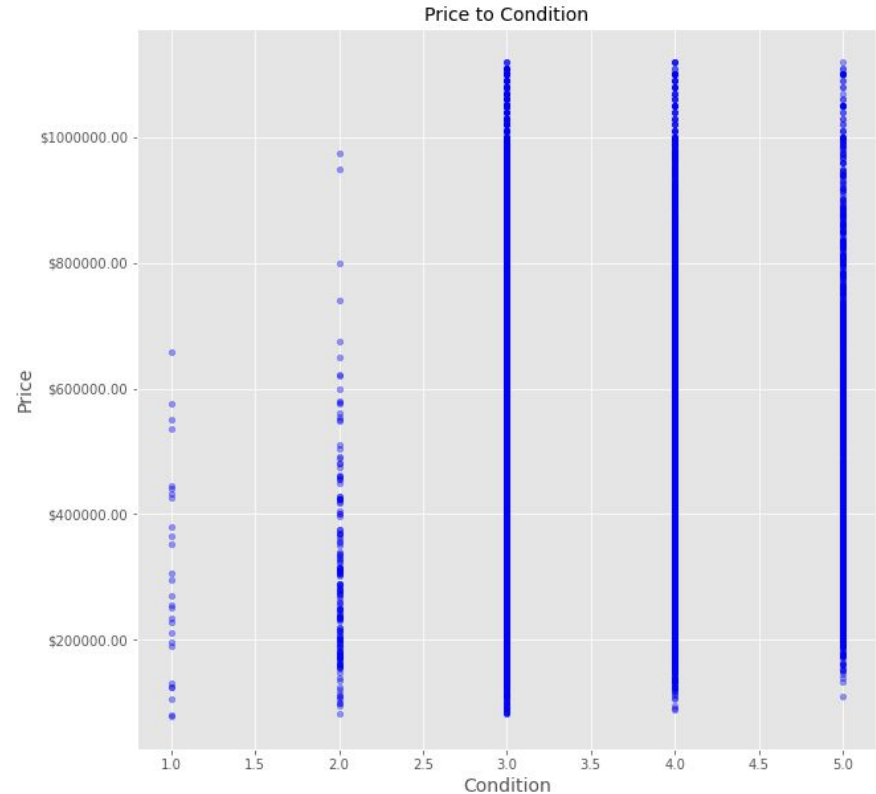
# Condition

How much will their house sell based on the current condition of their house?

What will happen if they improve the conditions of their house?

## Condition: Relative to Age and Grade

- |              |                                                                                                                  |
|--------------|------------------------------------------------------------------------------------------------------------------|
| 1= Poor      | Many repairs needed. Showing serious deterioration.                                                              |
| 2= Fair      | Some repairs needed immediately. Much deferred maintenance.                                                      |
| 3= Average   | Depending upon age of improvement; normal amount of upkeep for the age of the home.                              |
| 4= Good      | Condition above the norm for the age of the home. Indicates extra attention and care has been taken to maintain. |
| 5= Very Good | Excellent maintenance and updating on home. Not a total renovation.                                              |





# Our Findings

Based on our housing model:

1. Square Foot Living: As one unit of the square footage increases, the price increases by 98,000 dollars

2. Grade: As the building standard moves up 1 grade, the price of the house increases by 45,000 dollars

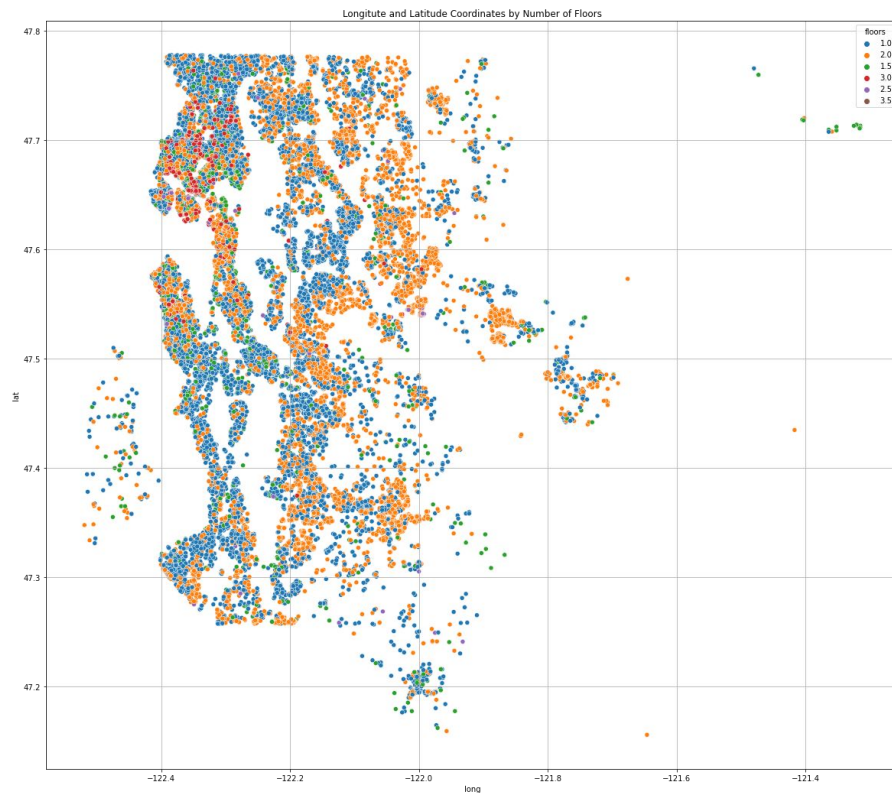
3. Condition: As the condition of the house moves up by 1, the price of the house increases by 17,000 dollars

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# Future Work

- Look at a more updated dataset: Our data is only from 2014-2015 so there is no way that this is accurate in current times
- Research on other features like living room square footage: Does the area of the living room have an effect of price as well?
- Look into the relation between house features to location: Does location have an effect of building structure (Suburb vs. City)?
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# Thank You!

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**GitHub:** [@myrnagrace](https://github.com/myrnagrace)