

# King County House Price Analysis



Good morning. My name is Kristen Tokunaga and I represent Data Science, Inc. Today I am here to share with you some insights we have gathered on homes in your County, to help you make decisions about selling your home.

Image links:

<https://kingcounty.gov/depts/assessor.aspx>

<https://www.seattleweekly.com/news/king-county-charter-update-targets-police-oversight-elections-council-size/>

## Problem Statement

- House Selling Points
- Price Estimates



As a prospective home seller, we want to identify key selling points for your home to help advertise to prospective homeowners.

Based on our prediction of your home's price using our (linear regression) model, we want to set realistic expectations of how much we can get and negotiation thresholds or factors (e.g., time by which the home needs to be sold) for when bids are offered. It's important to note that other real estate market factors come into play, and home buyers' preferences may fluctuate based on trends, age, and other individual variables.

Image links:

<https://www.ereleases.com/pr-fuel/identifying-unique-selling-point/>

<https://olympiamoving.com/2015/03/06/non-binding-moving-estimate-vs-binding-moving-estimate/>

## Business Value



By emphasizing your house's key selling points in our communications to prospective buyers, we may be able to maximize buyer interest and therefore maximize profits. Selling something so valuable and personal is a very important decision and time-intensive process, and we want to make sure you get what you want from this experience. These profits can help contribute toward your new home or other important uses.

Image links:

<https://www.forconstructionpros.com/business/business-services/article/12067063/vary-construction-markup-per-job-to-maximize-profit-potential>

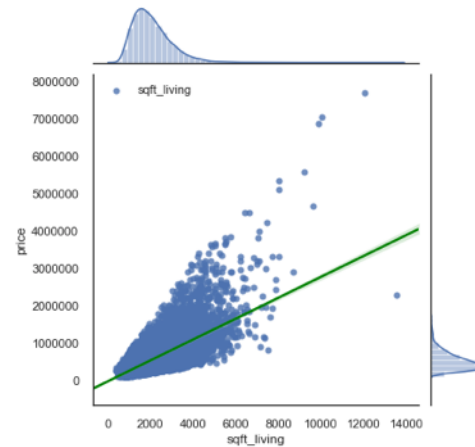
## Methodology

- Data
- Model
- Interpretation

Using data from over 20,000 houses sold between 2014 and 2015 in Kings County, we are able to analyze house characteristics that are closely associated with the prices at which the houses were sold. This can be a good predictor of potential buyer interest and the market value of your home.

## Business Recommendation #1

Larger houses increased the selling price of houses.



As you can see in the scatter plot above, price increases as square footage of the living space (i.e., house) increases. If you're looking to expand the size of your home or convert existing rooms for different uses, you may consider converting more of your lot to living space which can also increase the sales value of your home.

Image links:

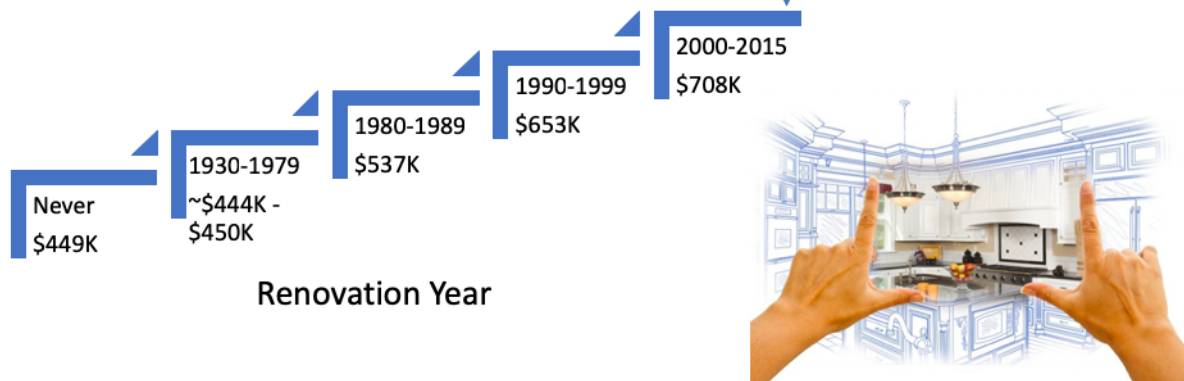
<https://thinkdivinely.com/is-bigger-really-better/>

<https://www.deviantart.com/poyola84/art/Genie-Itty-bitty-living-space-635919102>

## Business Recommendation #2

Year Sold (2014-2015)

Consider renovating your home.



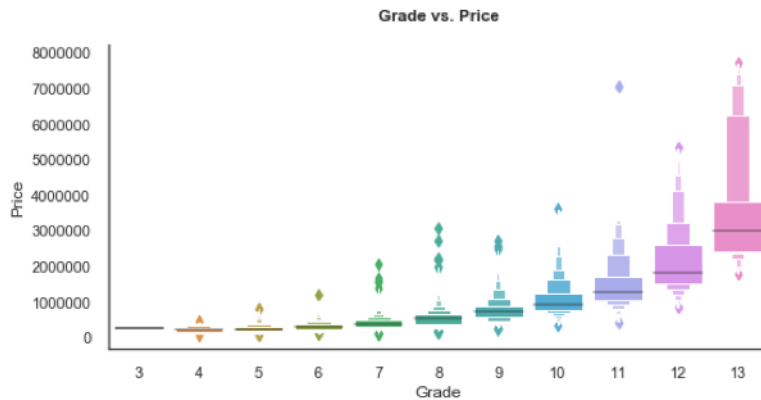
The median selling price of houses renovated in 2000-2015 was \$708,000 while houses that were never renovated or renovated prior to 1980 sold for ~\$450,000. Therefore, renovating your home may be a worthy investment!

Image link:

<https://www.storagemadeez.com/renovate-your-home-and-increase-its-property-value.html>

## Business Recommendation #3

Renovate with high-quality materials!

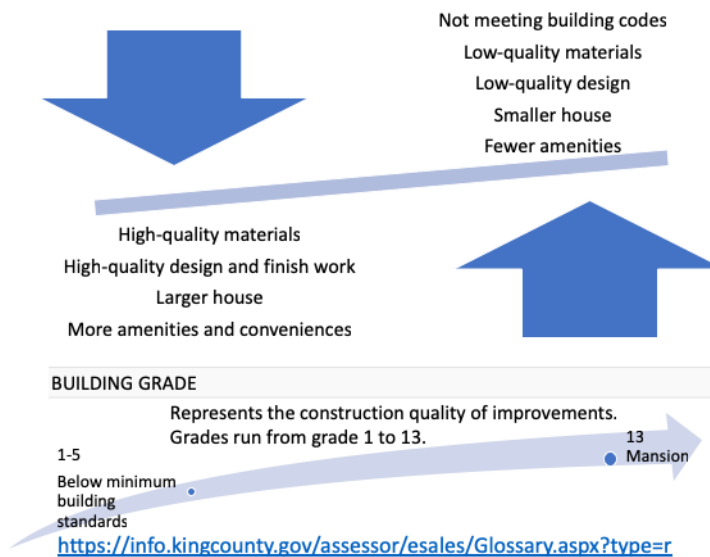


If you decide to renovate your home, use high-quality materials to increase the grade of your home. The median price for Grade 13 houses was \$2.98 million, while the grade 3 houses sold for \$262 K (<10%). Grade 7 is the average grade a house can have, which had a median sales price of \$375 K.

Image link:

<https://blog.edukasyon.ph/senior-high/live-student-life-get-good-grades/>

## Business Recommendation #3 (continued)



You might now be wondering “how do I increase the grade of my home?” Grades are set by the King County Residential Building Assessors. A link to descriptions of each grade is at the bottom of the slide.

Grade is generally defined by:

- Building standards/structure
- Ability to meet building codes
- Quality of construction materials
- Quality of architectural design
- Quality of finish work
- House size
- Amenities
- Conveniences



## Model Prediction

Based on your house's...

	# of Bedrooms
	# of Bathrooms
	# of Floors
	# of Views
	Condition
	Size of Basement
	Year House Was Built
	Lot Size of Nearest 15 Neighbors
	Size of House
	King County Grade
	Size of House Above the Basement
	Zip Code

**87% Certainty**

Our statistical model can predict the selling price of your home with 87% certainty.

We would be happy to share a quote with you if you choose to work with us and provide the needed information.

## Future Directions

- Analyze factors that can be changed
  - Within homeowner's control
  - Out of homeowner's control
- Compare sold vs. unsold houses
- Compare cost vs. earnings

Homeowners cannot influence the size of the house or the lot in most cases. Homeowners can, however, influence the type of renovations they invest in to improve the marketability and value of their home. To help prioritize such renovations, it would be helpful to know if there are more popular materials (e.g., granite, tile, wood, stainless steel) or locations (e.g., bedroom, living room, or bathroom, having a pool or outdoor barbeque pit) among prospective home buyers.

Other economic factors may influence a homeowner's ability to sell at the desired price: such as the status of the economy, and timing of listing your home with these types of considerations in mind may help maximize profits on the sale.

Predictions for unsold houses can be made using a model based on historical data. We would want to see if there were characteristics about the houses that were not successfully sold or sold below their asking price and identify similarities or differences between unsold vs. sold houses to further refine our strategy.

Also, for houses that were renovated, it may be helpful to know the amount they spent on renovations vs. how much they earned from selling the house to maximize the return on this investment.

Questions?

I'd now like to address any questions you may have.

Thank you!

Thank you very much for your time and consideration. I am happy to continue the conversation and provide more insights to support your decisions through this process.