

Living in King County, WA or Sleepness in Seattle?

Introduction Part 1 – Stakeholder

- Nicole Johnson
- wants to buy a house that
 - has a lively, central neighbourhood
 - is in middle price range
 - is at its dip (within a year)

Introduction Part 2 – Dataset

- King County House Sales Dataset
 - 02/05/2014 - 27/05/2015
 - ca. 20,000 tracked sales
 - 21 parameters (location, facilities, size, price, quality, ...)

Introduction Part 3 - Hypotheses

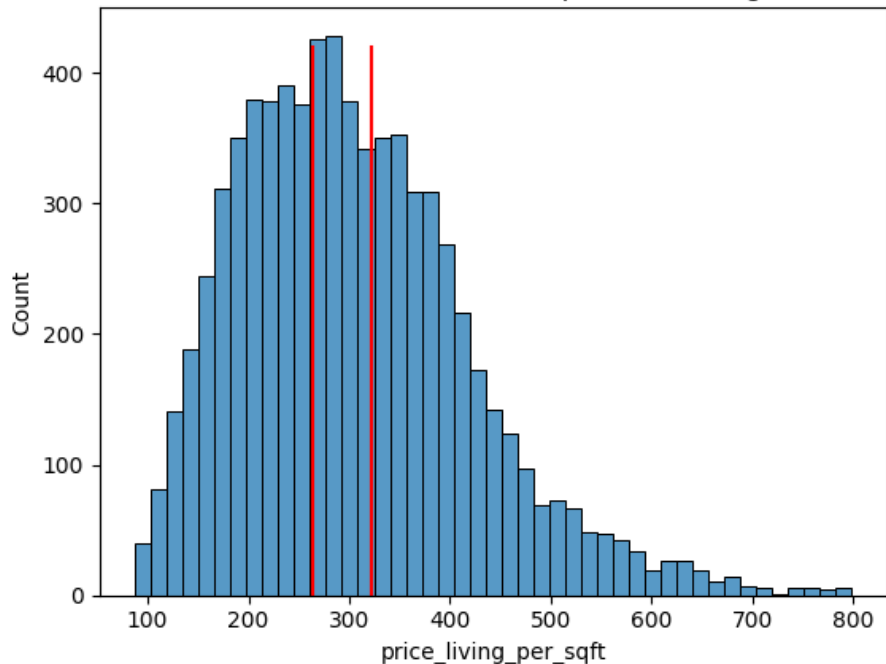
- H1) the house will be older than 50 years and has not been renovated in the last 25 years (→ age)
- H2) the house will has a below-average grade (→ quality)
- H3) the house will has a below-average living square (→ size)

Linking requests to parameters

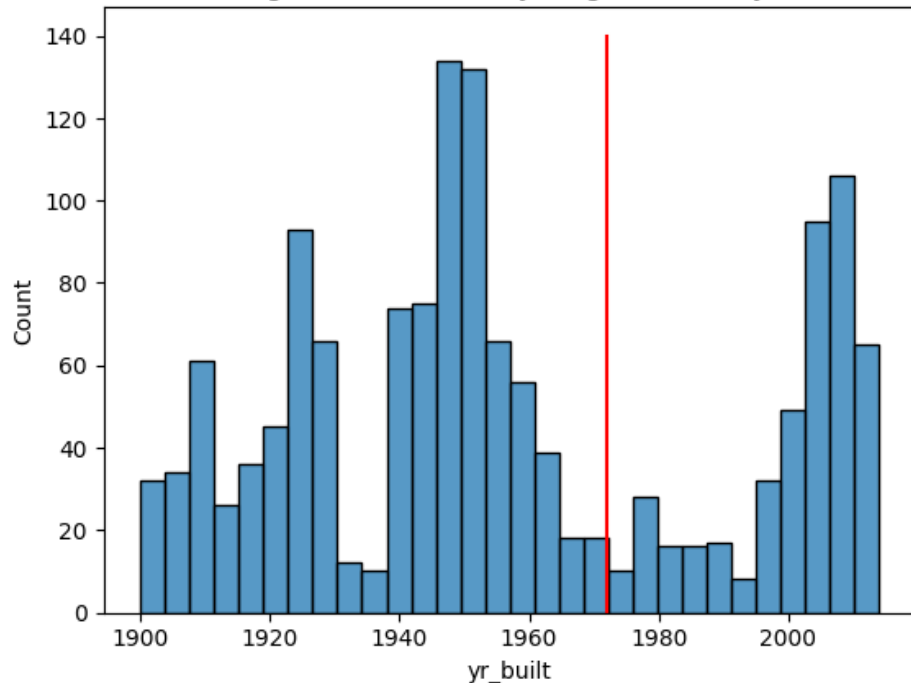
- lively, central neighbourhood
 - zip code
- In middle price range
 - 40% - 60% percentile
- time market (within a year)
 - date

Results: H1 (older 50y, no renovation last 25y)

Histogram of price per sqft for living area
(red lines indicate 40 to 60 percentile range)

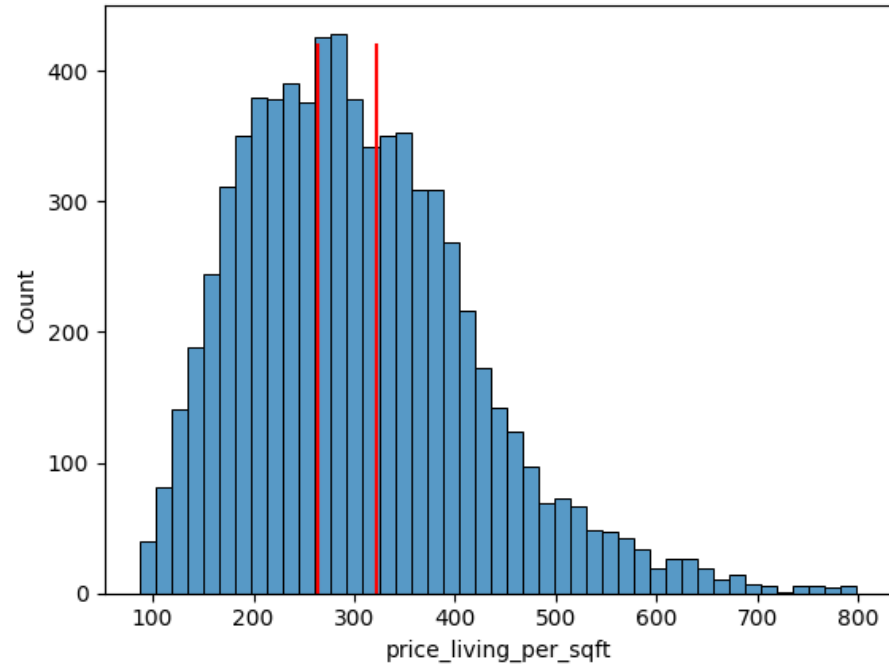


Histogram of the house age for mid-price segment
(houses right of red line are younger than 50 years old)

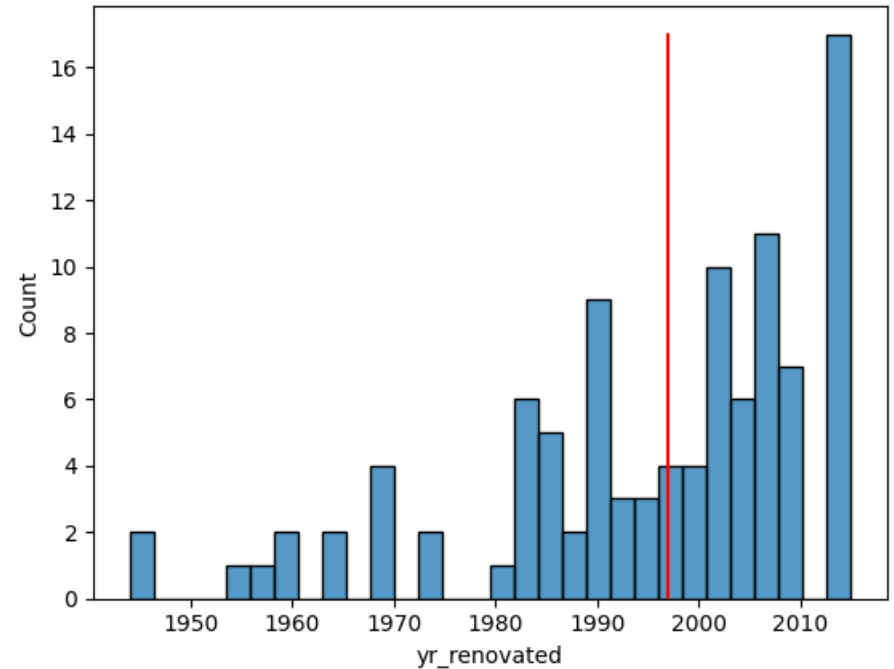


Results: H1 continued

Histogram of price per sqft for living area
(red lines indicate 40 to 60 percentile range)

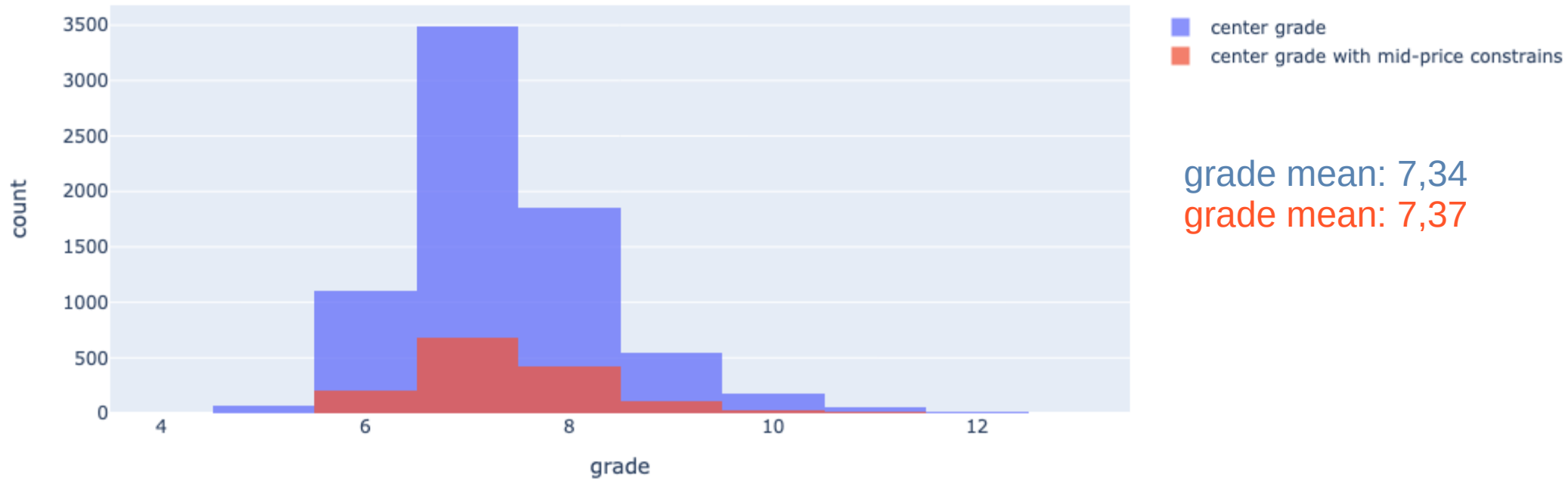


Histogram of the renovation year of old houses for mid-price segment
(red line indicates 25 years renovation threshold)



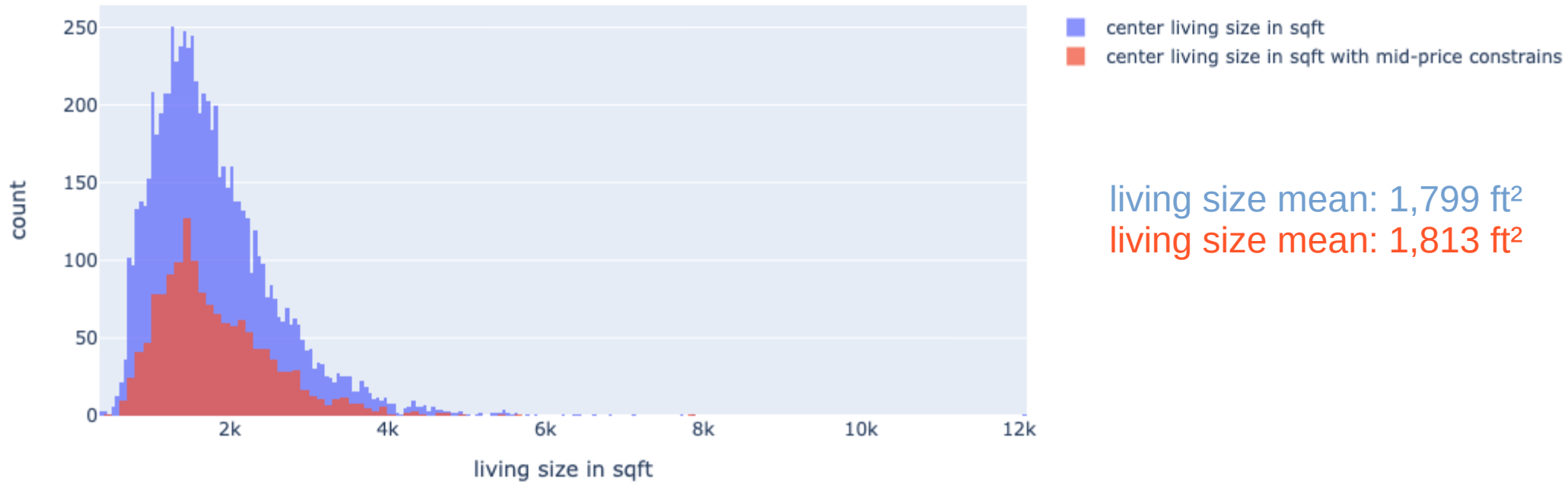
Results: H2 (below average grade)

Histograms of the grade distributions



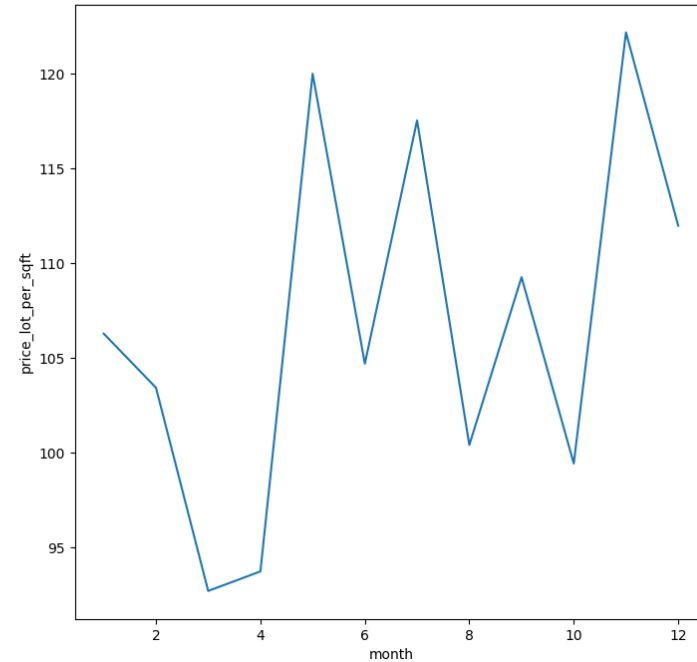
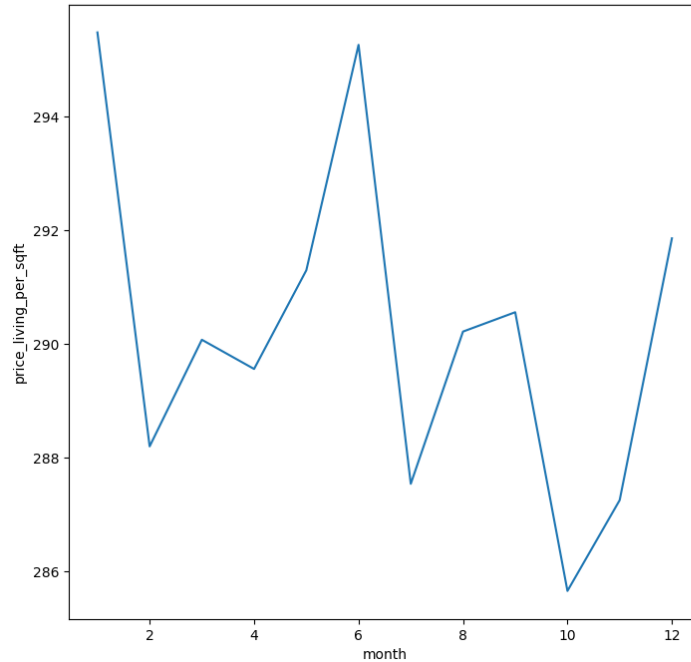
Results: H3 (below average living size)

Histograms of the living sizes in sqft distributions



Results: Market Timing

Median prices for living and lot per sqft over the year



Key take aways

- an overall reasonable price in the mid-price segment for living area per square feet is between 263 USD and 321 USD
- avoid buying in January and June and look for houses in October for maximizing living area
- to maximize lot size, buy in march or April
- the living area should have a size of about 1,800 square feet
- the grade should at least be 7
- most houses have been built 1940 - 1960 and 2000 - 2015. So when age is a criterium, look for houses in these built phases due to higher supply