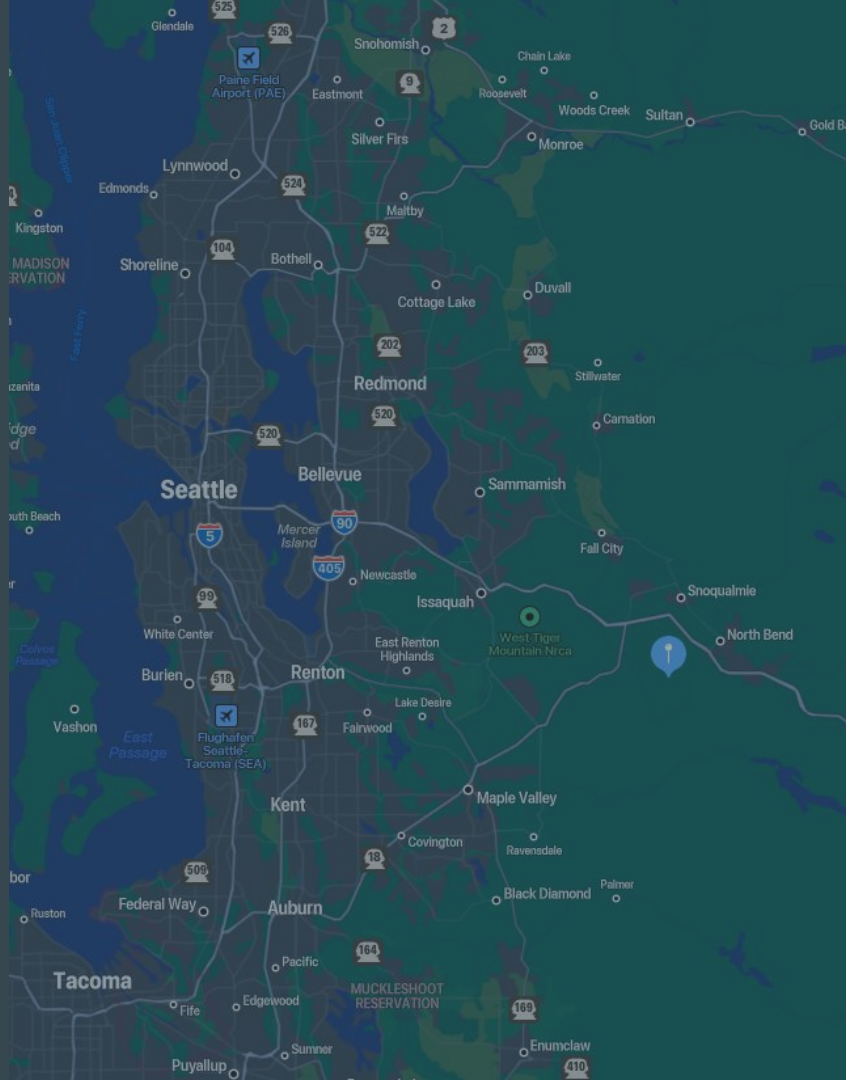


King County Housing Poor neighborhood investment possibilities



Client: Erin Robinson
Processing: Pascale Fischbach

30 Nov, 2023



Objective, Data & Hypotheses | Analysis | Results & Recommendation

Client Assignment:

- Socially responsible investment in poor neighborhood. Cost return + little profit
- *Poor neighborhood*: $\geq 80\%$ of prices/ft² in a given zip code area fall into second quartile

King County Housing Data Set:

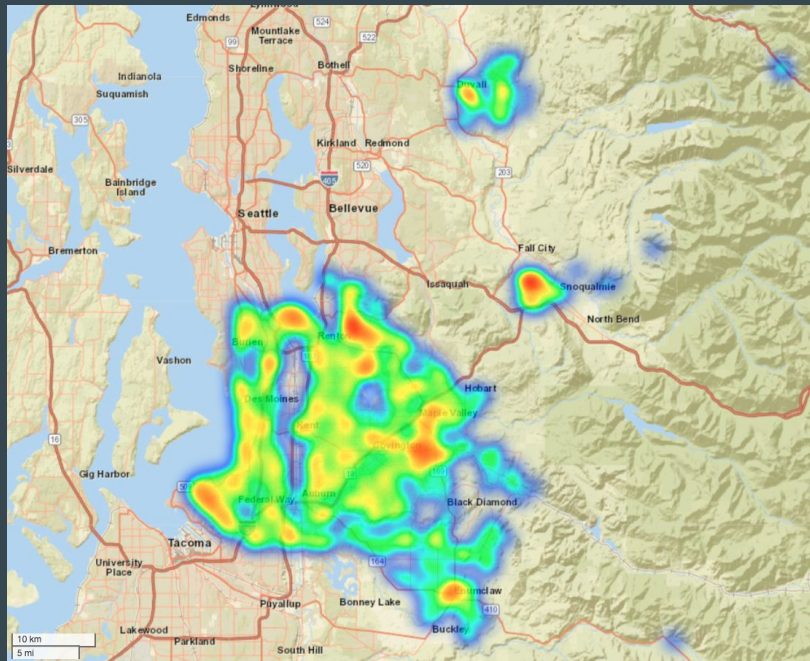
- $N = 21420$ properties, built/ renovated/ sold in the years 1900 - 2015
- Several property characteristics provided

Hypotheses:

- The lower the condition, the lower the price.
- The farther away from Seattle city center, the lower the price.
- The longer no renovation between building and renovating, the lower the price.

Objective, Data & Hypotheses | Analysis | Results & Recommendation

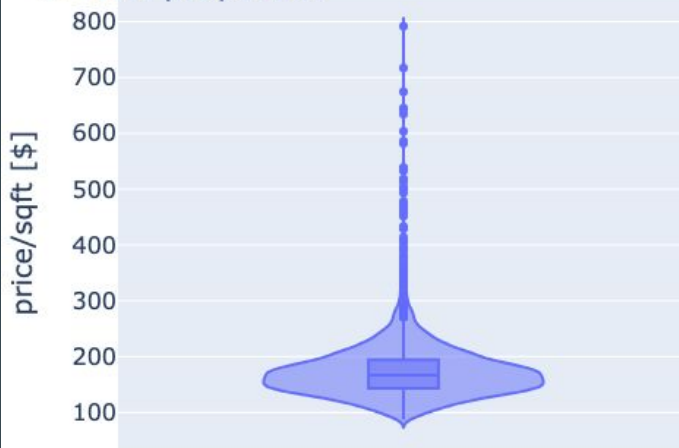
$n_{poor} = 22$ zip code areas, $n_{poor} = 6444$ properties



Price - red: high, blue: low

$avg = 173.53 \text{ \$/ft}^2 \pm 49.37 \text{ \$/ft}^2$

Distribution of Price/sqft (living space)
of KCH properties



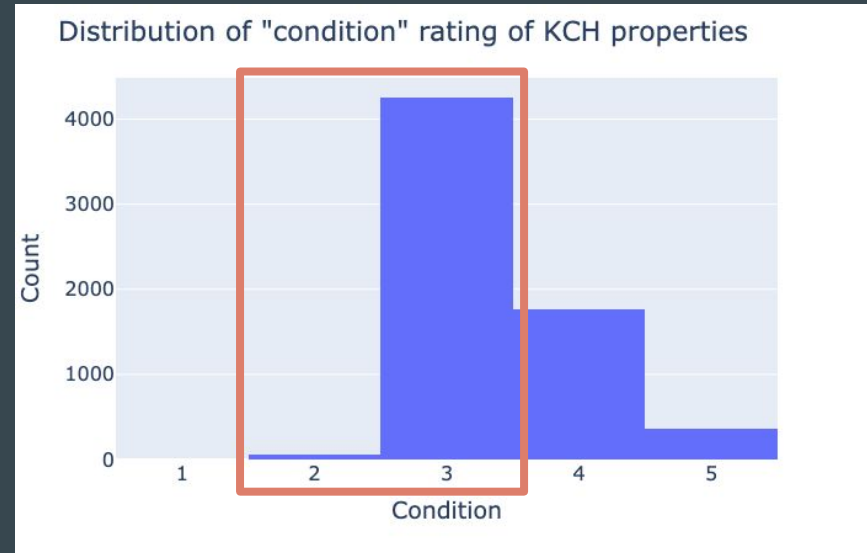
Objective, Data & Hypotheses | **Analysis** | Results & Recommendation

Condition rating

- 1 = poor - worn out. Approaching major reconstruction.
- 2 = fair - badly worn. Much repair needed. Refinishing + overhauling
- 3 = average - normal obsolescence, minor repairs + refinishing needed
- 4 + 5 = Good/ Very good. No obvious maintenance required

mostly = 3 ($n_{Condition=1} = 6$)

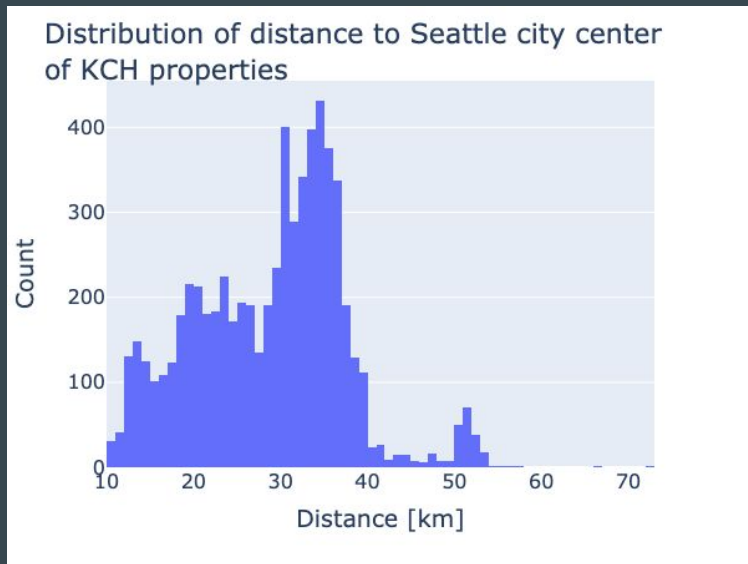
Socially responsible: 2 or 3



Objective, Data & Hypotheses | Analysis | Results & Recommendation

$Avg = 28.28 \text{ km}, \pm 8.7 \text{ km}$

Socially responsible: closer is better



condition and price don't relate clearly

distance and price don't relate clearly



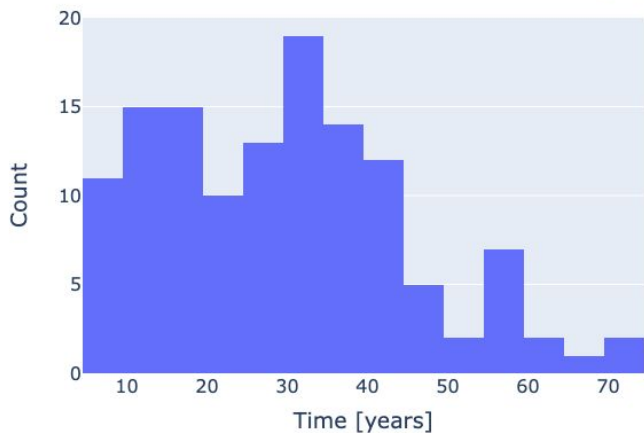
Objective, Data & Hypotheses | **Analysis** | Results & Recommendation

$n = 128$, $avg = 29.63$ yrs, ± 15.3 yr

condition and price don't relate

Socially responsible: not too long ago time and price don't relate

Distribution of time since renovation of KCH properties



Relationship between price/sqft, time since renovation and condition for KCH properties in poor neighborhoods



Objective, Data & Hypotheses | Analysis | Results & Recommendation

Results

- All hypothesized correlations very weak, though tendency as expected
- poor neighborhood subset very homogenous in all aspects of interest

Recommendations

- Socially responsible investment:
 - condition 2-3
 - Renovation no longer than 40 years ago
 - 3+ bedrooms (families)
 - The closer to Seattle, the better
- $n = 48$ properties on final list

