Predicting Seattle Housing Prices

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Premise and Objective

- Housing prices in Seattle have appreciated 118% between **2012** ($355,000) and **2020** ($773,508).
  - Source: Norada
- Increased pressure on residents to afford cost of living.
- Determine which areas of Seattle are most affordable to purchase a home.

Data and Methods

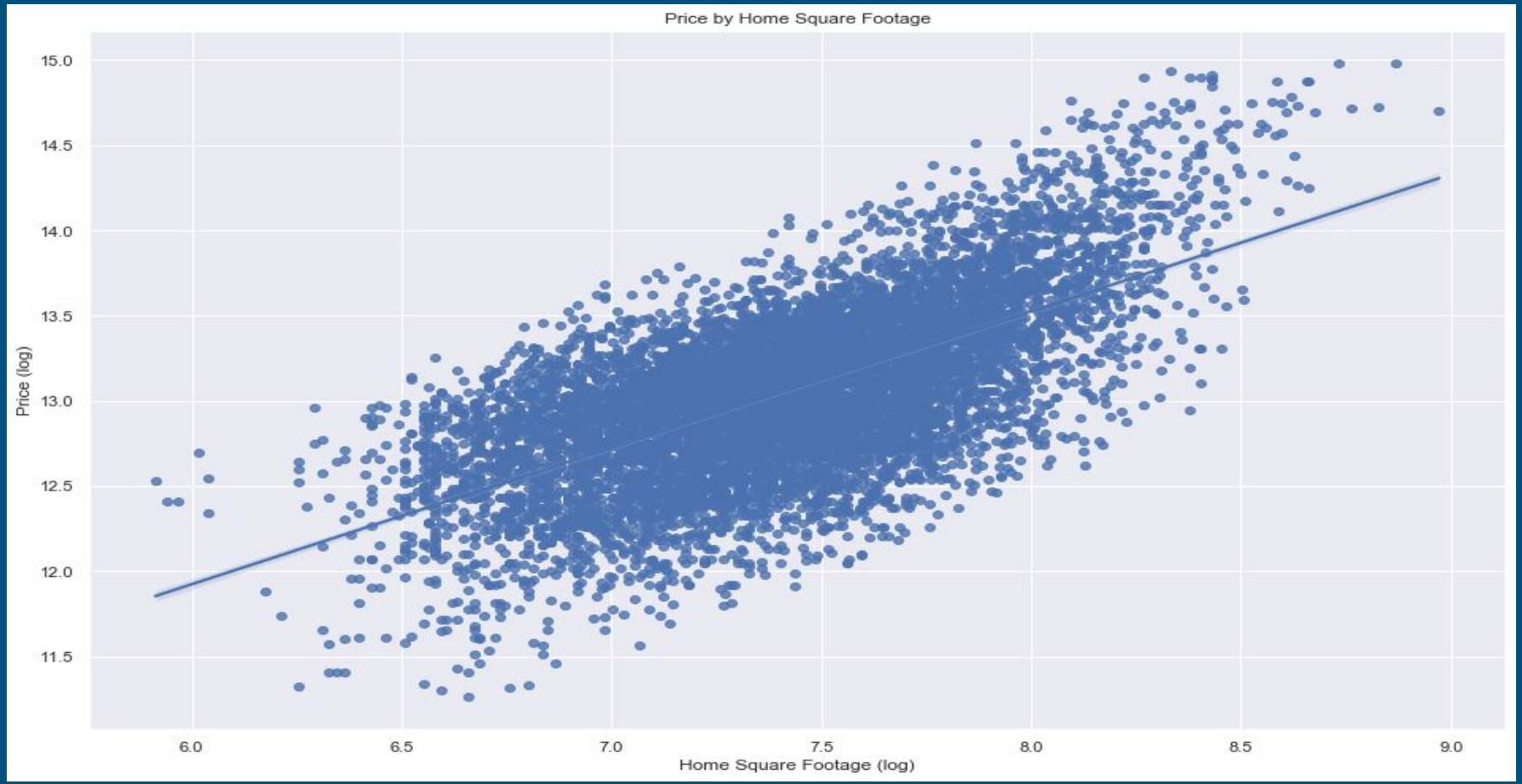
- King County housing data (2020), provided by Flatiron School.
- Isolate homes in Seattle metropolitan area by zip code.
- Group together several possible features of a home:
  - Square footage
  - Age of home
  - Waterfront
  - Floors
  - Bedrooms

Results

- Statistically significant differences between groups (F=748).
- This model explains 77% of variance in Seattle housing prices (R^2=0.77).
- Zip codes and square feet significantly predict housing prices (p<0.000).

zip_98168	-0.163709
zip_98198	-0.151278
zip_98178	-0.143729
zip_98118	-0.130908
zip_98106	-0.128677
zip_98146	-0.127358
zip_98133	-0.122196
zip_98155	-0.120802
zip_98188	-0.111896
zip_98166	-0.105622

Above are log coefficient strengths.



Strong relationship between home square footage and housing prices.

Recommendations

- Lower priced zip codes may offer relief for residents.
  - May offer smaller homes.
- Higher priced zip codes expected to have larger homes.
- To keep cost of living low, consider zip codes:
  - 98106
  - 98148
  - 98168

Future Work

- View geographical data more broadly (e.g., council districts) to understand political implications of housing
- Examining other features:
  - Renovations
  - Square footage relative to neighbors
- Generalizability: expand from Seattle to King County

Thank You!