Housing Market King County, WA

Report Series Purpose:

- → Seeking to Establish New HQ in King County, WA
- → Addressing Challenges related to Final Goal in Manner with Least Negative Impacts
- → Implementing Creative Solutions

Current Report Goals:

- → Create a Predictive Model for Future Employee Housing
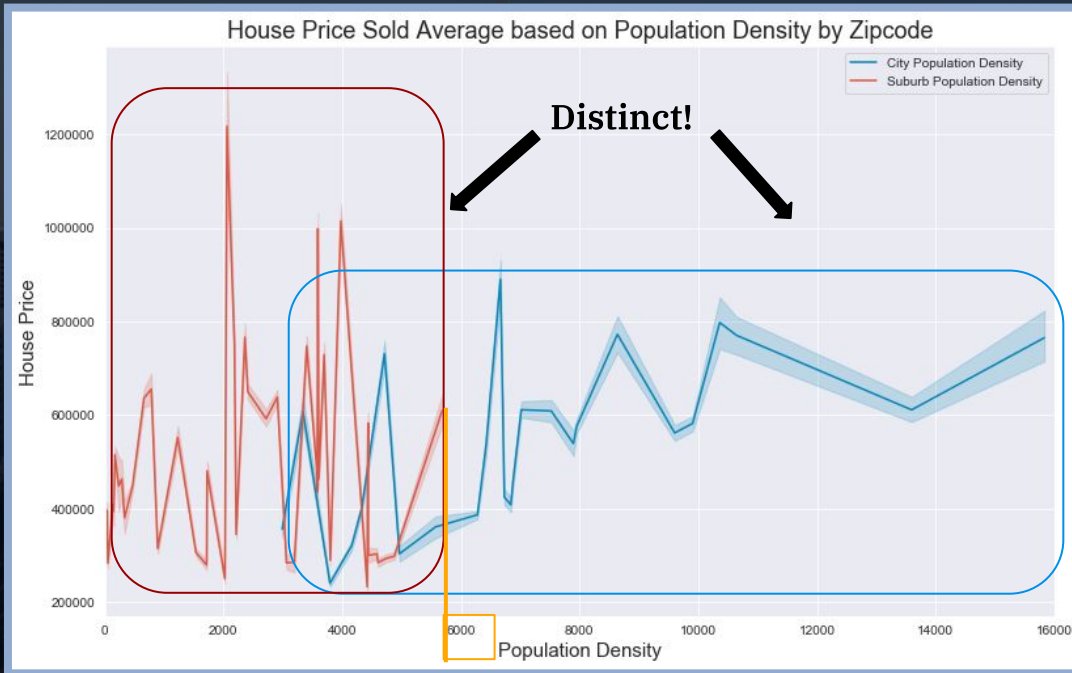- → Provide More Knowledge for Future Big Decisions (HQ Location(s))

Gustavo Chavez
Project Data Analyst

Purposes of Creating a House Price Predicting Model

→ Allows us to identify:
  ○ Potential neighborhoods and QoL for future employees
  ○ Areas to avoid for low QoL/Gentrification reasons
  ○ Potential locations for new HQ
→ Allows us to predict:
  ○ Potential Housing Purchase Cost for future employees
  ○ Potential Company impact

3

Grade Effect on Housing

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.

Population Density and Sale Price

House Price Sold Average based on Population Density by Zipcode

Distinct!

Notes:

- City naturally denser than suburbs

- City and suburb serve as two distinct categories

- City will be in one specific spot--suburbs are everywhere else

- Created model for each group

6

Current Recommendations

For Business:

→ Explore more in 'Multiple Offices' direction
→ Avoid creating offices near centerpoint

For Future Employees:

→ Housing of minimum grade 7
→ Housing away from suburbs near centerpoint
→ Avoid purchasing in neighborhoods with lots of renovations--will be more expensive

Current Features in Models

○ Grade
○ Log-distance From Centerpoint
○ # of Bathrooms
○ Sqft per Floor
○ Condition
○ View
○ If Renovated
○ Population Density

Future Work

→ Gather house sale time data to model growth of population density in each zipcode
→ Identify low-income and minority housing areas to avoid gentrification of said areas
→ Include more QoL metrics in prediction model for future employees:
  ○ Farmer's Markets, Parks, Entertainment center, etc
→ Identify undesirable locations so that we may avoid them:
  ○ Landfills, railyards, waste treatment facilities, etc.

For Next Meeting:

→ Identify Ideal Multiple Offices locations by zipcode, and model expected impact on House Sales price for each area.

8

Thank You

Thank you for coming to this meeting.

Special Thanks:

Fellow Team Members on Data Analyst Team

Analyst Coordinator and Team Lead, Rafael Carrasco

Team Consultant Talia Salzberg-Horowitz

Names and positions are written in character for presentation.
Actual Special Thanks:
Follow classmates in Flatiron Data Science Cohort
Cohort Instructor, Rafael Carrasco
Education Coach, Talia Salzberg-Horowitz