



Maximizing House Purchases (for KCHA)

Jae Heon Kim

Business Problems

- Home Prices up
- Need for Affordable Housing up
- Potential Budget down

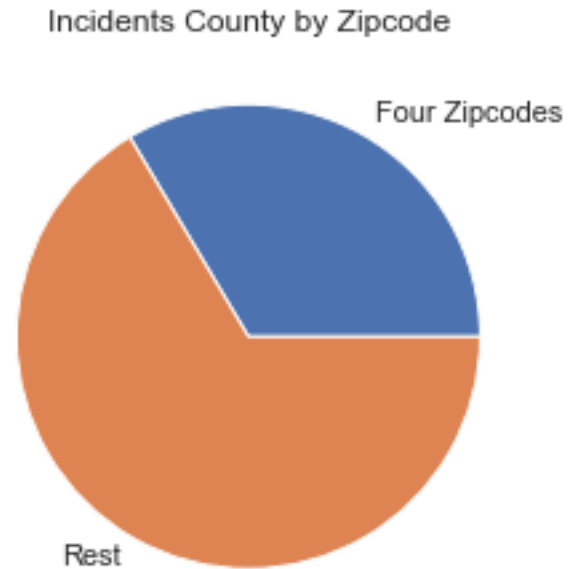
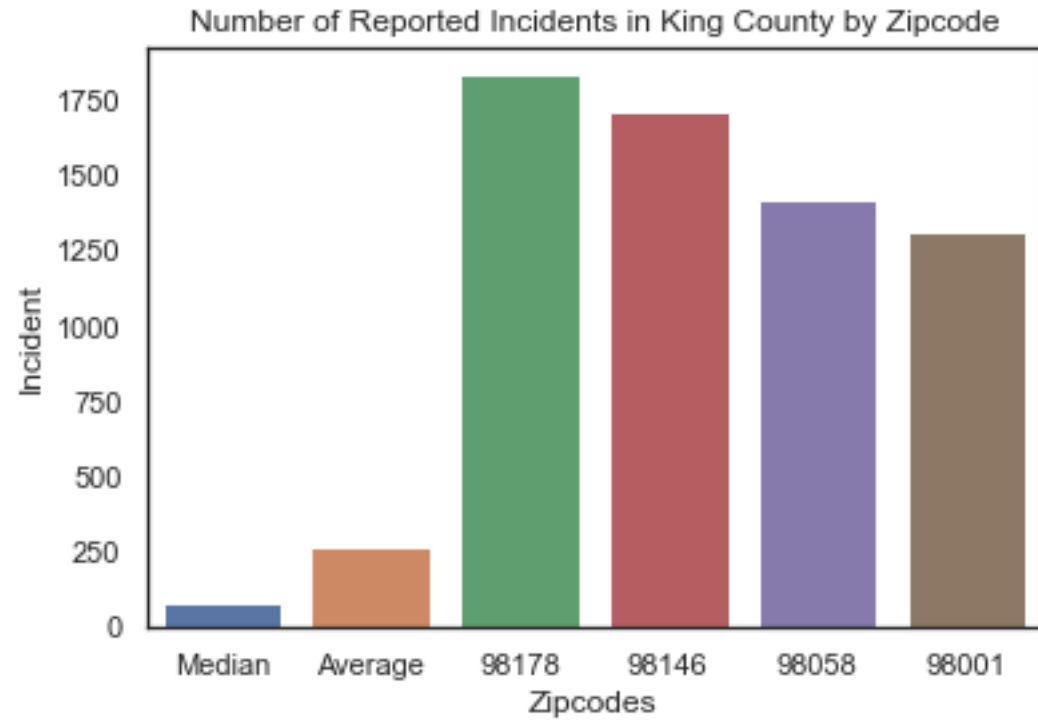
Business Goals

- Want to buy **as many homes as possible.**
- Avoid zipcodes with extreme high crime rates
- Spend less than \$1 Million
- **Optimal Strategy: Provide for as many people as possible.**

Data Used / Exploratory Analysis

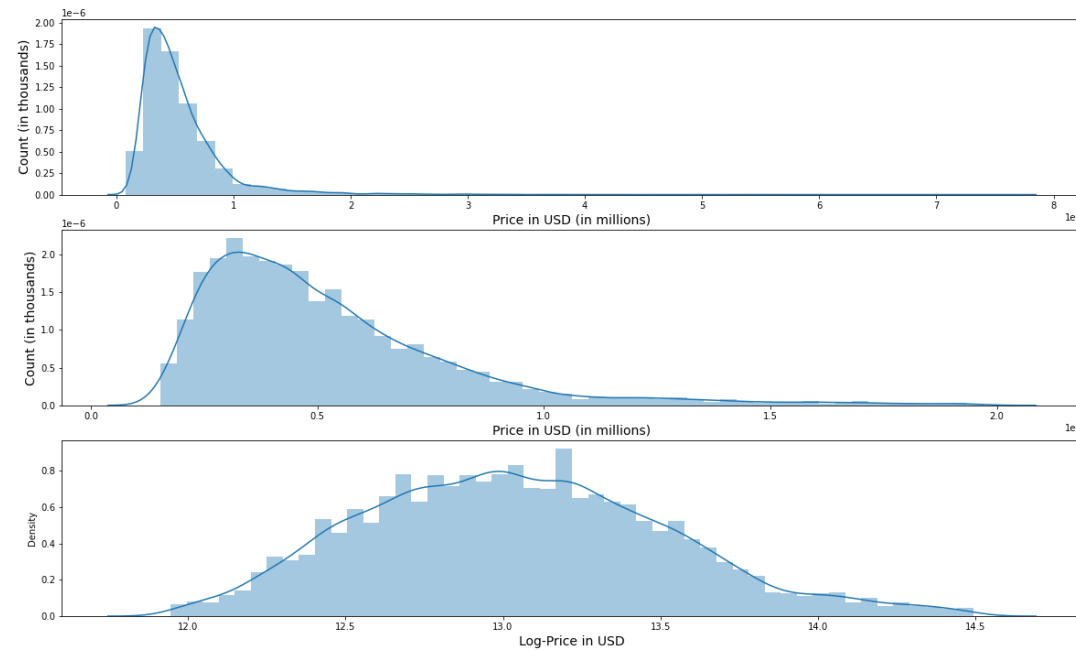
- King County Accessor: Home Sales Price data (May_2014 to May_2015)
- King County Accessor: Reported Offenses (2020~)
- Kings County Accessor: Reported Incidents (~2019)

Exploratory Data Analysis (Cont.)

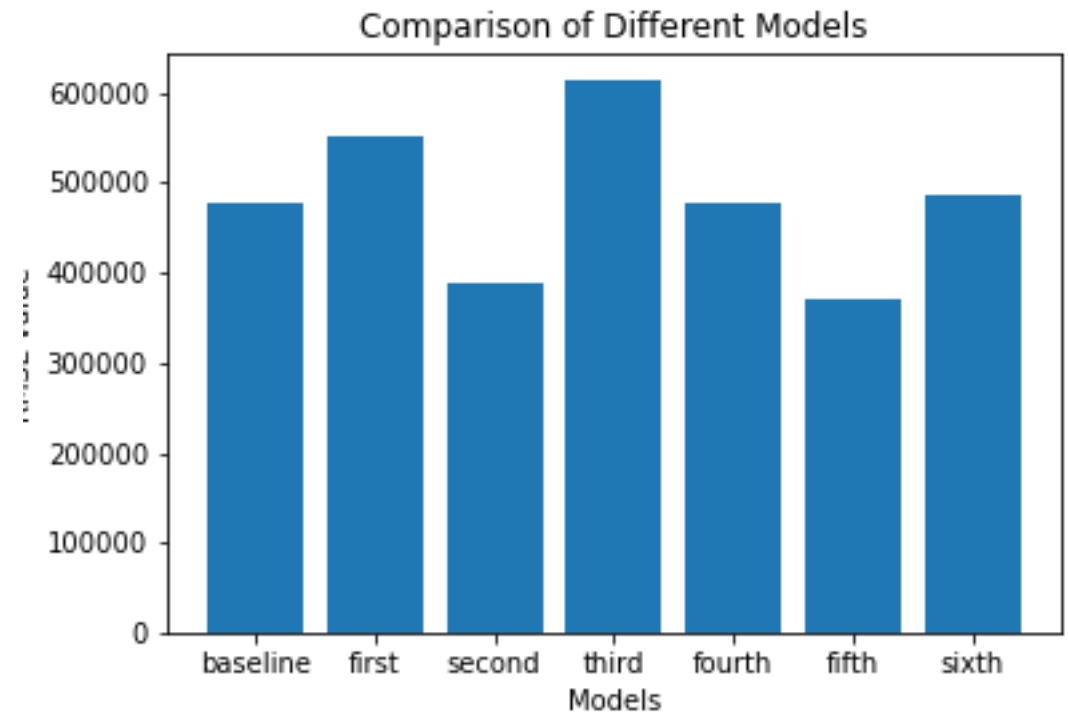
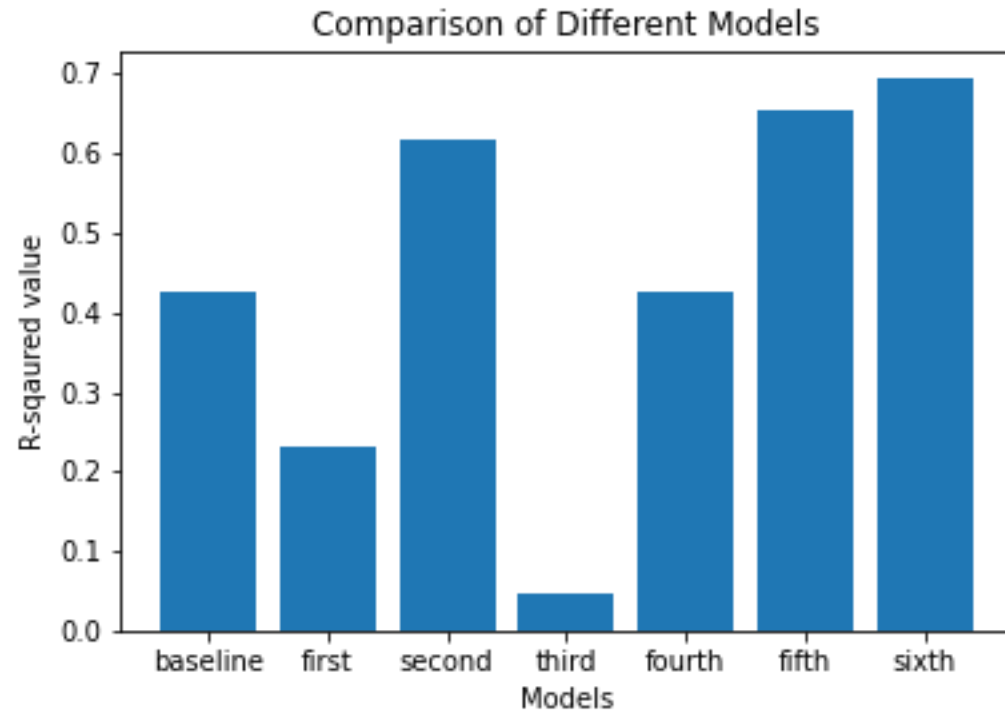


Exploratory Data Analysis (cont.)

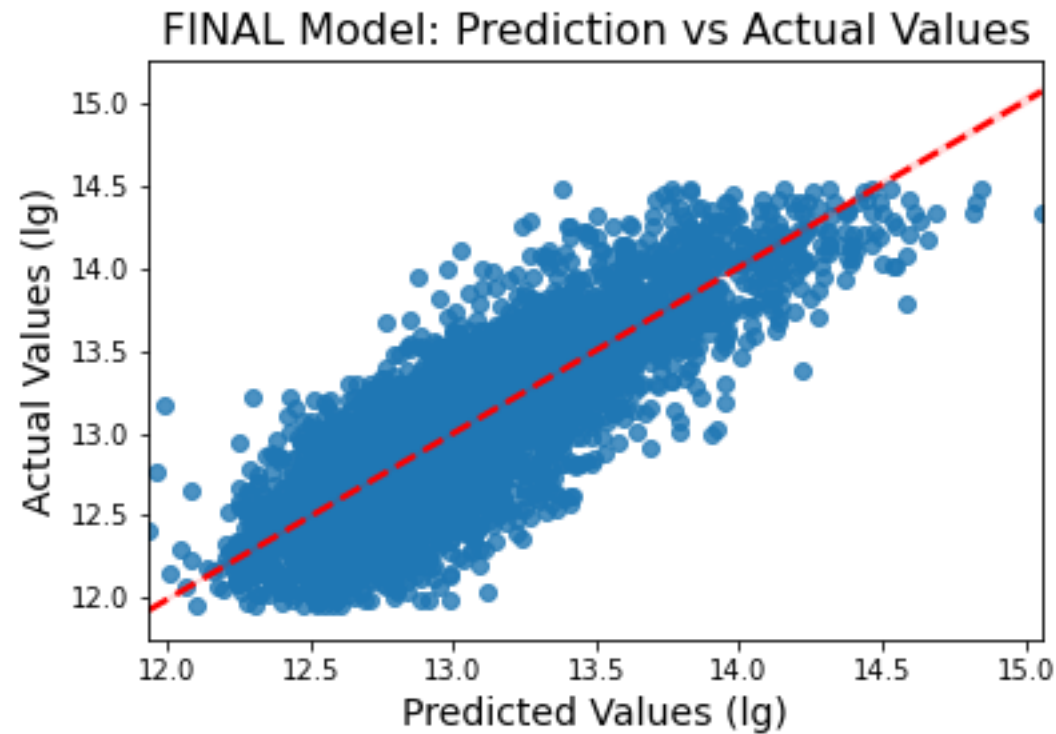
Distribution of Home Prices



Prediction Model



Exploratory Data Analysis (cont.)



Takeaways

- YOUNG-BAD vs old-good
- # Bedrooms NOT THAT IMPORTANT

NEXT STEP

Look at only homes that the takeaways apply.

Recommendations

- **Small Families: 2 Bedroom** vs 1 bedroom
- **Large Families: 3 Bedroom** vs 4 bedroom
- **Buy** from zipcodes: 98118, 98168, 98126, 98106
- **Don't Buy** from zipcodes: 98040, 98109, 98074, 98006, 98075, 98077, 98005, 98102

NEXT STEPS

- Get more academic data
- Get more traffic data
- Get more location data
- Get more up-to-date data



Questions ??

Thank you!

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