

BIG MARKET, HARD TO DECIDE

- Seattle has been one of the fastest growing large American cities for nearly a decade
- Big city 15th largest city in the United States
- Diverse market over 30 neighborhoods
- Hard to decide where to start a new business in Seattle

PROBLEM SOLVING APPROACH

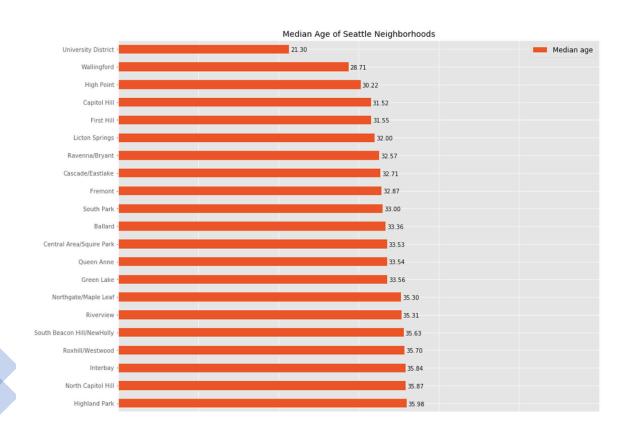
This analysis goes through the data of each Seattle neighborhood from the following aspects. A bakery is used for market defining and data acquisition purposes.

- median age
- · household income
- crime rate
- current market saturation

DATA ACQUISITION AND CLEANING

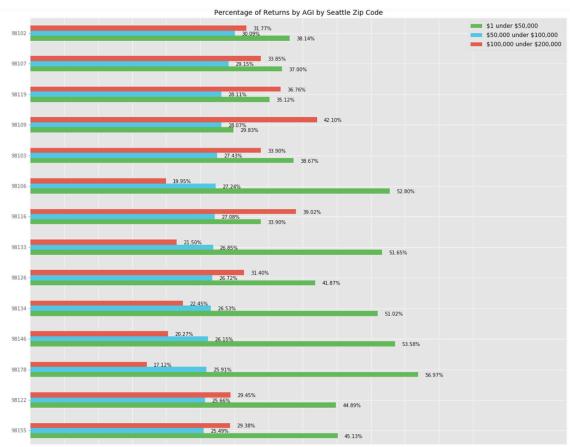
- Median age by Seattle neighborhoods (2010 U.S. Census) – <u>link</u>
- Individual Income Tax Statistics by Washington zip code (2017 IRS data) - <u>link</u>
- United States zip codes
- Seattle Police Department crime data (2018present) - <u>link</u>
- Foursquare location data that shows bakeries within Seattle city limit

Median Age by Neighborhood



- Bakery target market: young individuals and families (35 years old and under)
- The data is from 2010 U.S. Census
- The neighborhoods with median age under 36 is shown

Adjusted Gross Income (AGI) by Seattle Zip Code

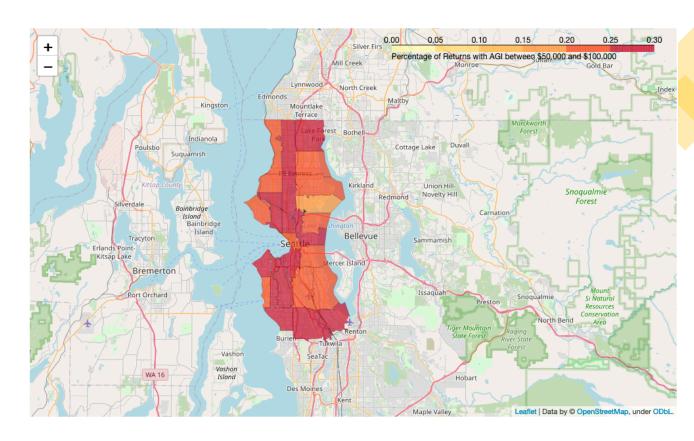


- Bakery Target Market: individuals or families with medium to high income level (\$50,000 < AGI < \$100,000)
- The data is based on Federal income tax returns filed in 2017
- The blue bars represent the percentage of individuals/families with annual income between \$50,000 and \$100,000 in each Seattle zip code (top 14 is showing here)

Adjusted Gross Income (AGI) by Seattle Zip Code

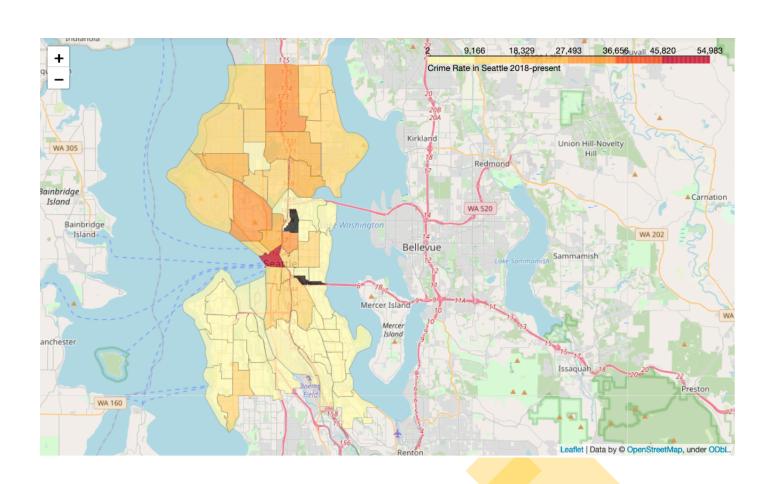
The neighborhoods with the highest percentage of annual income between \$50,000 and \$100,000:

- East Lake (98102)
- Adams/Ballard (98107)
- Queen Anne (98119)
- West Lake (98109)
- Woodland Park/Green Lake (98103)
- Riverview/South Delridge (98106)
- Alki (98116)
- High Point/Delridge (98126)



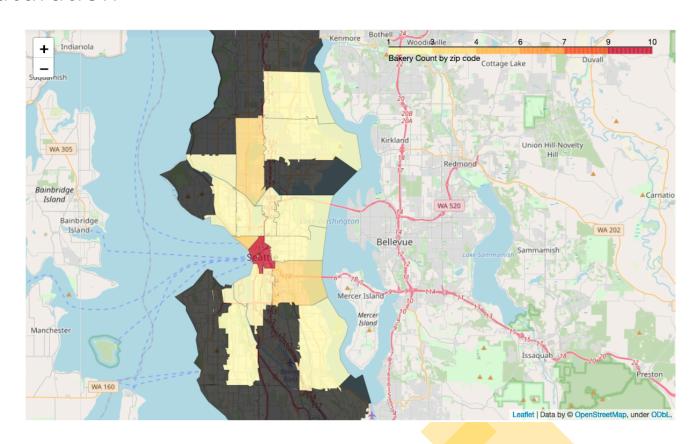
Crime Data

- The bakery wants to provide a safe environment for its customers
- The safeness of each neighborhood is measured using Seattle PD crime rate data from 2018 – present
- The safer neighborhoods include:
 - Eastlake
 - Madison Park
 - South and North Delridge
 - South Beacon Hill
 - Alki



Current Market Saturation

- Foursquare REST API
- Venues in bakery category within Seattle city limit
- Neighborhoods with few or no bakery based on Foursquare data:
 - Ballard
 - Magnolia
 - Queen Anne
 - University District
 - Delridge



Conclusion and future directions

- After evaluating the median age, annual income (AGI), crime rate, and current market saturation of each
 Seattle neighborhoods, the general recommendation for a new bakery will be in Ballard, Queen Anne, Alki,
 Green Lake and Delridge.
- This is just a general overview of the Seattle market. To improve the accuracy of the analysis and further narrow down the location selection, the following can be considered:
 - Population size of each neighborhood and look at crime rate per capita and number of bakery per capita
 - · Average/median rental cost of each neighborhood
 - · Zoning and permit requirement of each neighborhood
 - · Update the median age and AGI analysis using latest census and IRS data
 - Improve the data availability of current market saturation by using different API such as Yelp