

# Shave and a Whiskey Please!

Determining Possible Locations for  
Premium Barbershops in San Antonio, TX

By Olin Kennedy

# Problem Statement:

- ▶ Premium Barbershops are no longer a secret phenomenon, Competition is out there.
- ▶ However, the market for premium barbershops is still underserved
- ▶ So, given the presence of competition, where should an entrepreneur locate his new premium barbershop?
  - ▶ Since this space in the marketplace is no longer in its infancy, all the obvious places to locate a premium barbershop are likely already served.
- ▶ **Can we identify favorable locations using data?**

# Data Sources

- ▶ ZIP Codes and ZIP Code demographic data from Zip-codes.com
  - ▶ The bulk of our source data, driving our map model and proposed solutions
- ▶ Open-source for Zip Codes that fall within the political boundaries of San Antonio, and Open-source geoJSON of Texas Zip Code Boundaries
  - ▶ Used for making the map product for the client
- ▶ Foursquare API to pull all the Salons and Barbershops for San Antonio, Texas.
  - ▶ Used for Validating the model to determine favorable locations
  - ▶ Used to Visually Analyze business competition in target areas using the final Map product

# Data Cleaning

- ▶ Zip-codes.com Demographic and Business Data
  - ▶ The bulk of our source data, driving our map model and proposed solutions
  - ▶ Originally returned 103 features per row, selected the 11 most relevant features
  - ▶ Created population density feature and average paycheck feature from features in the original data
  - ▶ Controlled for varying sizes, types of businesses, etc.
- ▶ Open-source for Zip Codes that fall within the political boundaries of San Antonio, and Open-source geoJSON of Texas Zip Code Boundaries
  - ▶ Open-source zip codes were cleaned of P.O. Box only zip codes (no demo data)
  - ▶ Used Mapshaper.org to convert the Texas geoJSON into a San Antonio geoJSON
- ▶ Foursquare API to pull all the Salons and Barbershops for San Antonio, Texas.
  - ▶ Originally returned 2215 results
  - ▶ Eliminated Duplicates
  - ▶ Eliminated Women's and Kids venues and split the results into premium and economy barbershops

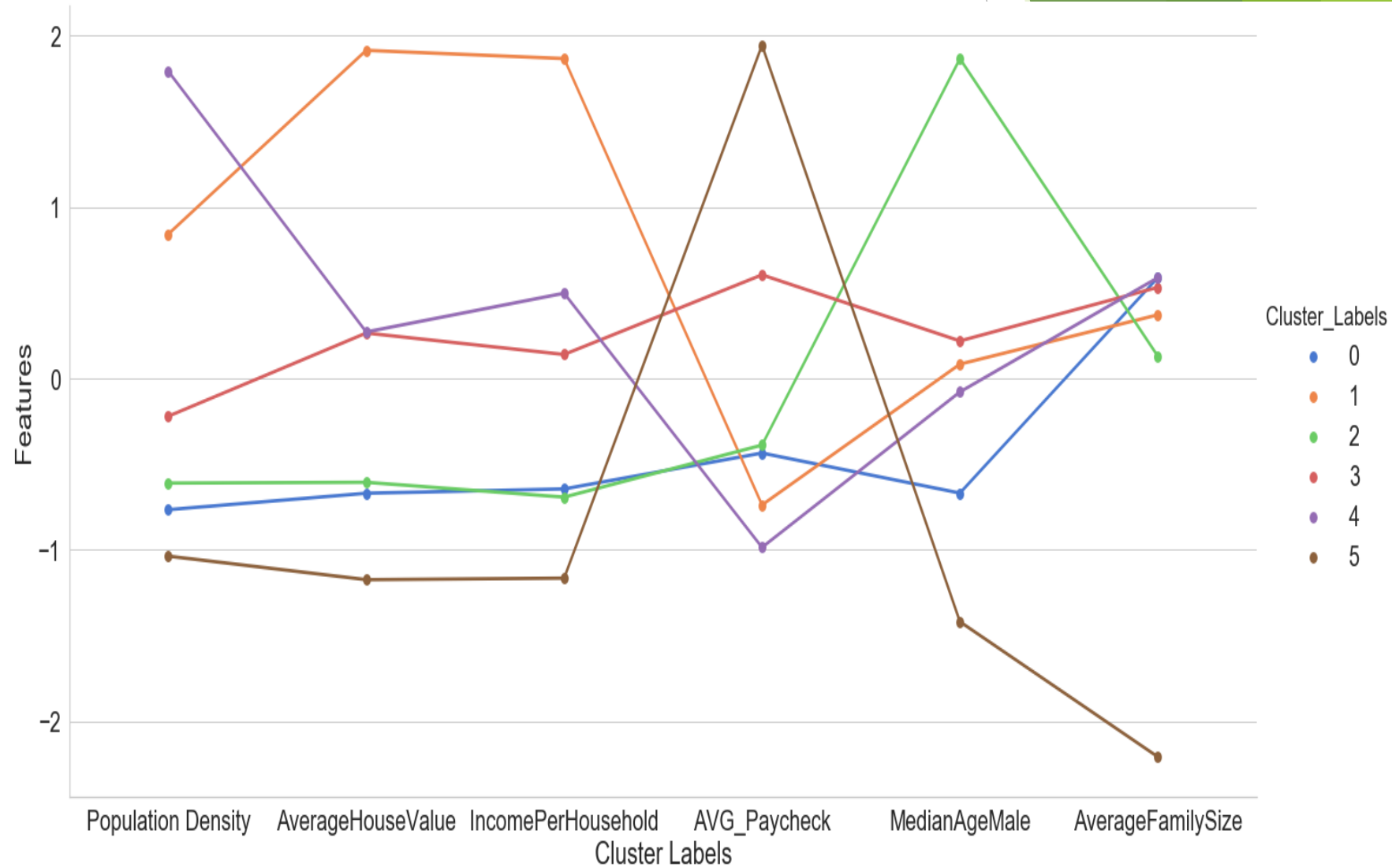
# Methodology

- ▶ Given demographic data for each zip code, used K-means to cluster each zip code and then interpret the results
- ▶ Clustered in 6 types of neighborhoods

Population Density	Higher population densities are better than lower, indicating more potential customers in a zip code
Average House Value	Higher House Values were better, indicating richer residents in a zip code. Richer residents are more likely to be premium barbershop customers.
Income per Household	Higher incomes were better, indicating richer residents in a zip code. Richer residents are more likely to be premium barbershop customers.
Average Paycheck	Used as a measure of wealth of workers in each zip code. This is important because workers in a ZIP code are still potential customers of a barbershop, even if they don't live there.
Median Age Male	Age may indicate a likelihood to use premium barbershop services. The theory here is that both very young median ages and old median age indicate a population that may be willing to spend more on premium services because they don't have the responsibility and cost of child-rearing.
Average Family Size	Lower family size would be better because of the reduced responsibility and financial burden of children on our potential customers.

# Cluster Interpretation

- ▶ After Normalization, Visually plotted the average values for each cluster
- ▶ Rank ordered each cluster by comparing relative values in each of the features in terms of favorability for a premium barbershop
- ▶ Ranked (3,1,4,2,0,5)
- ▶ Then, reassigned Cluster names to reflect rank order.

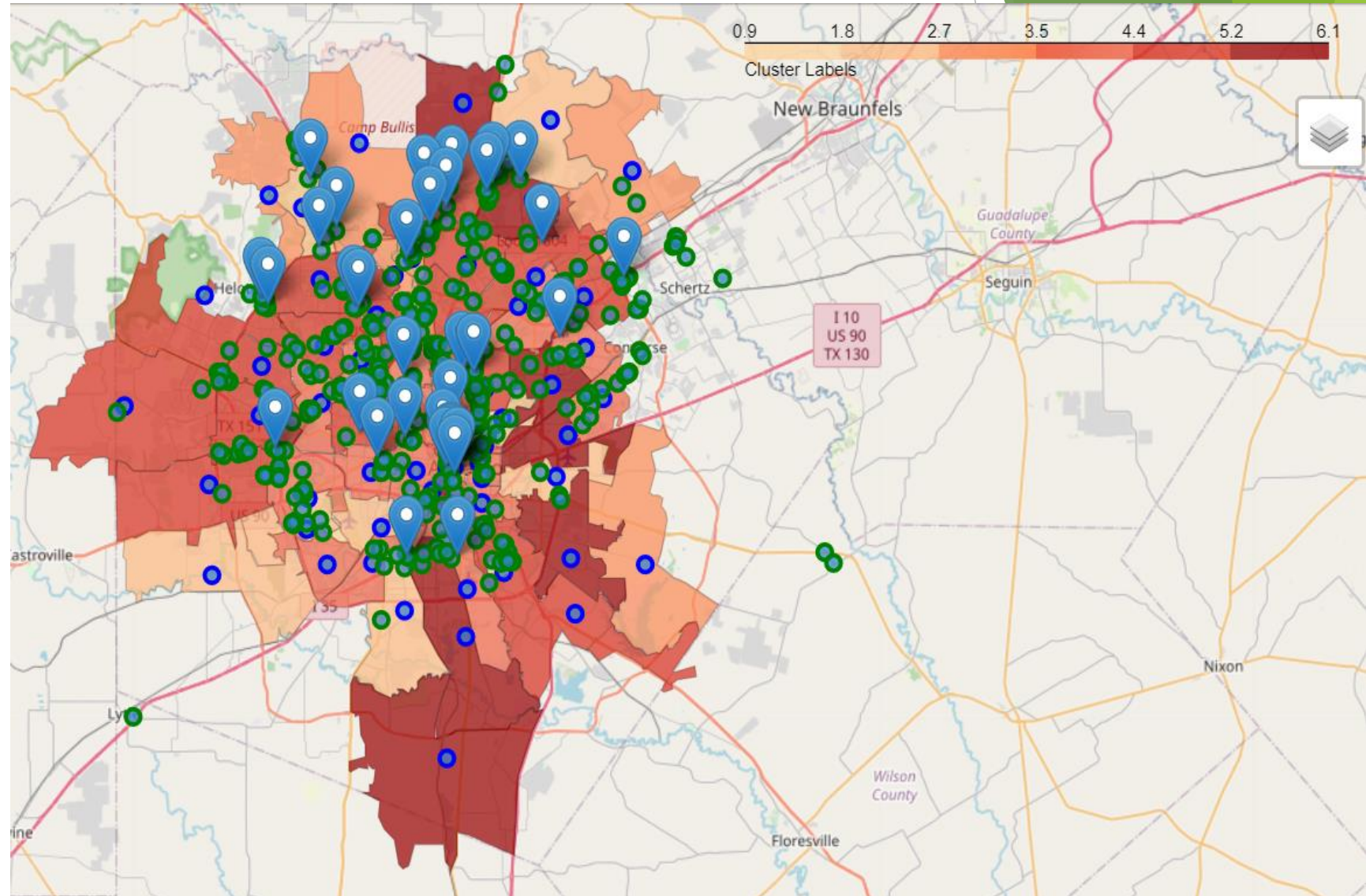


# End Result

- ▶ Pulled SATX Barbershop locations from Foursquare
- ▶ Labeled Premium Venues as competition
- ▶ Included Economy venues for Situational Awareness and further competition analysis

## Legend

- ▶ Darker shades indicate better Zip codes to locate
- ▶ Blue Markers = Premium
- ▶ Green circles = Economy
- ▶ Blue Circles = ZIP code and cluster label

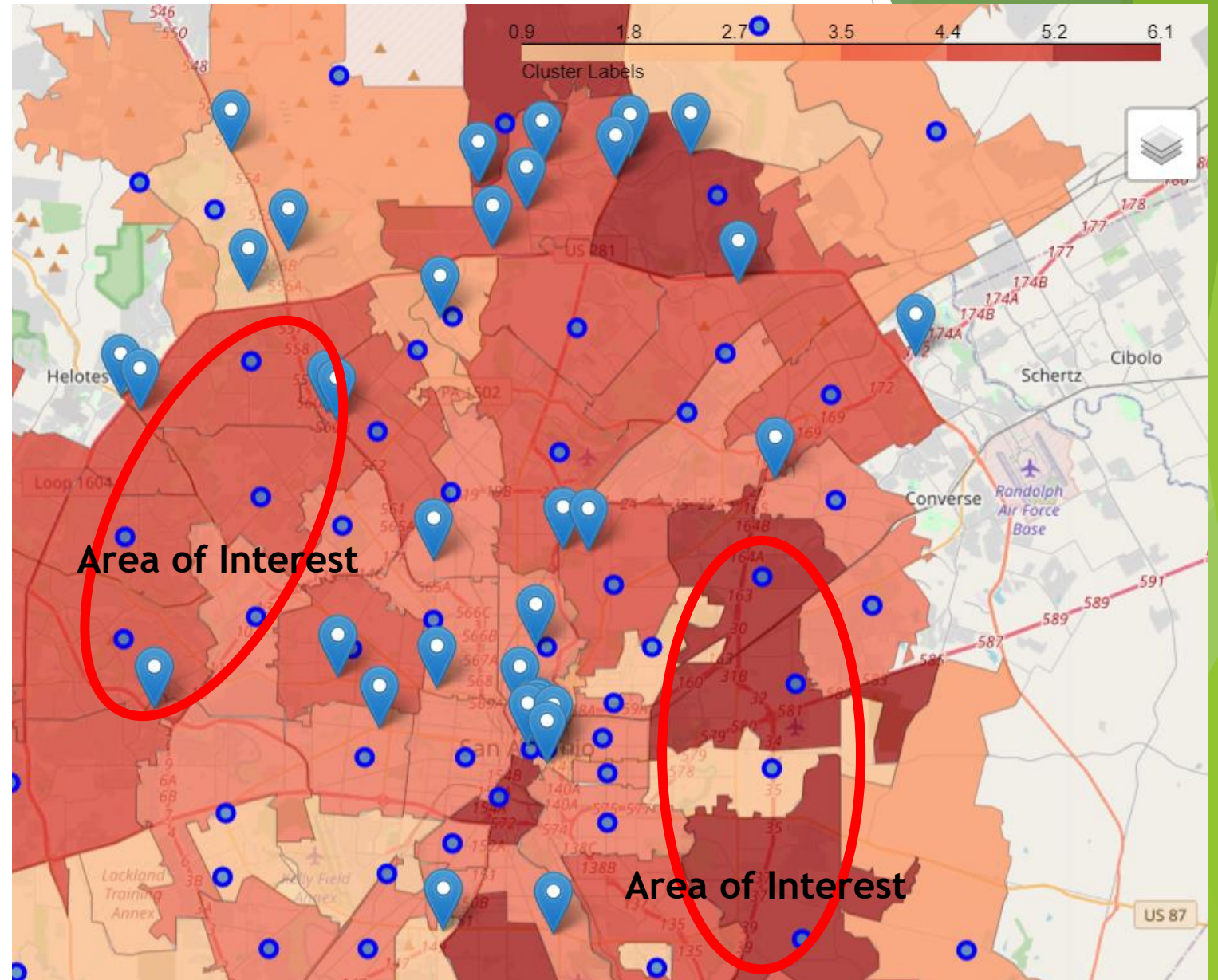




# Observations

- ▶ Cluster 5 by far houses the highest number of premium barbershops which validates our model
- ▶ Premium Barbershops adjacent to Cluster 6 locations, and Majority in Cluster 5 Locations
- ▶ Map Analysis generated two areas of interest for further Analysis

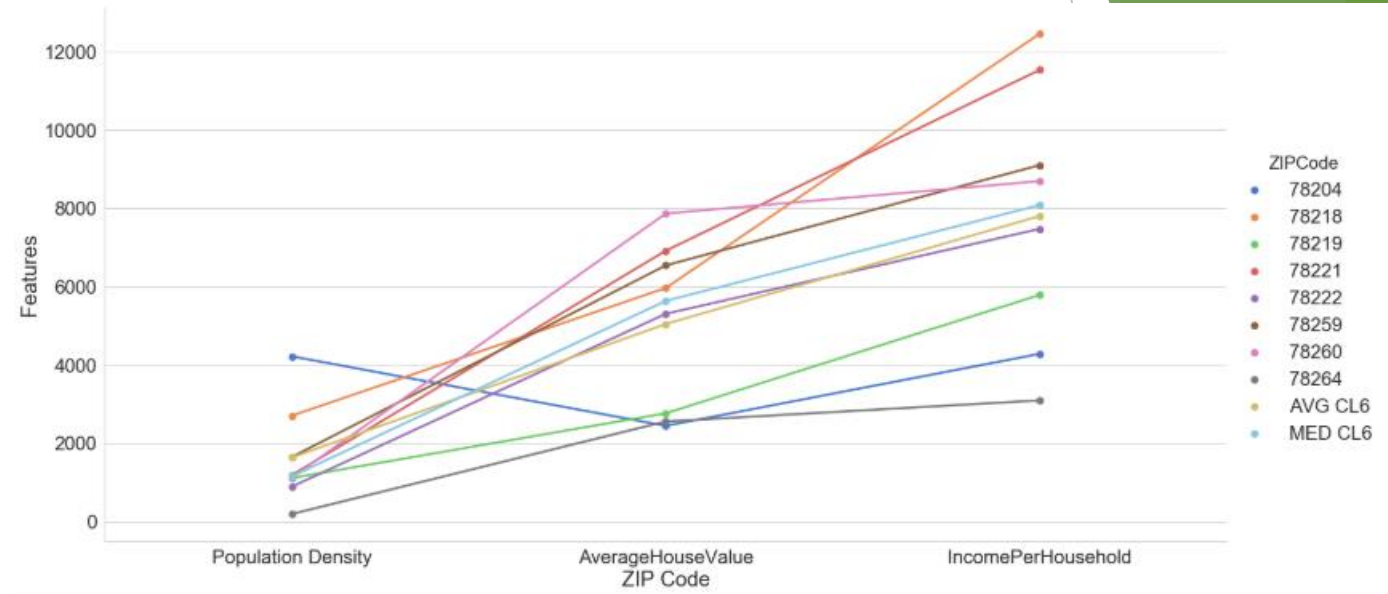
\*Darker Shaded Locations indicate better locations for Premium Barbershops





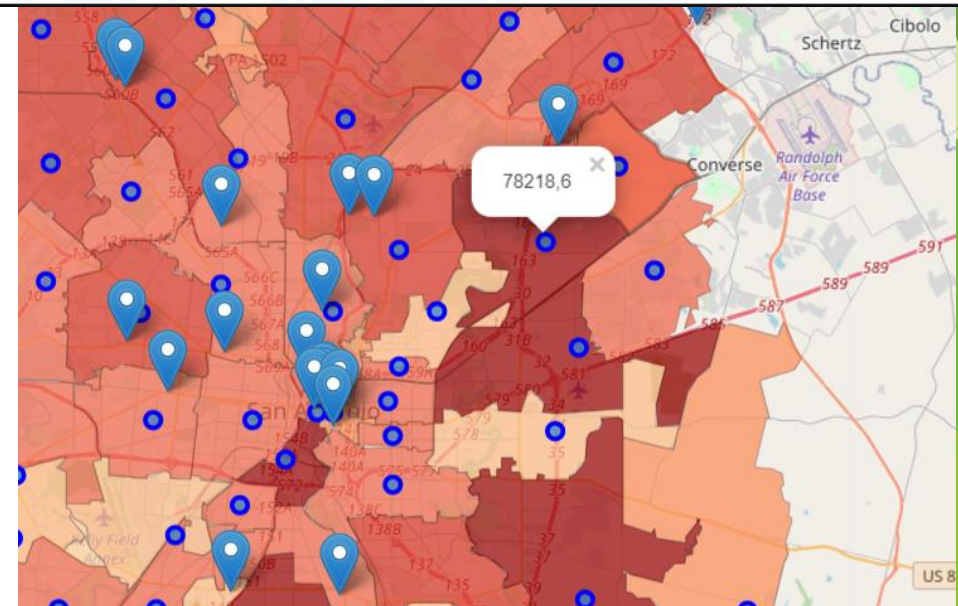
# Recommended Location: 78218

- ▶ I ran an analysis on Cluster 6 Areas in the East of San Antonio
- ▶ 78218 has excellent demographics for a premium barbershop (See orange line)
- ▶ Only one other barbershop adjacent to the zip code (low competition)



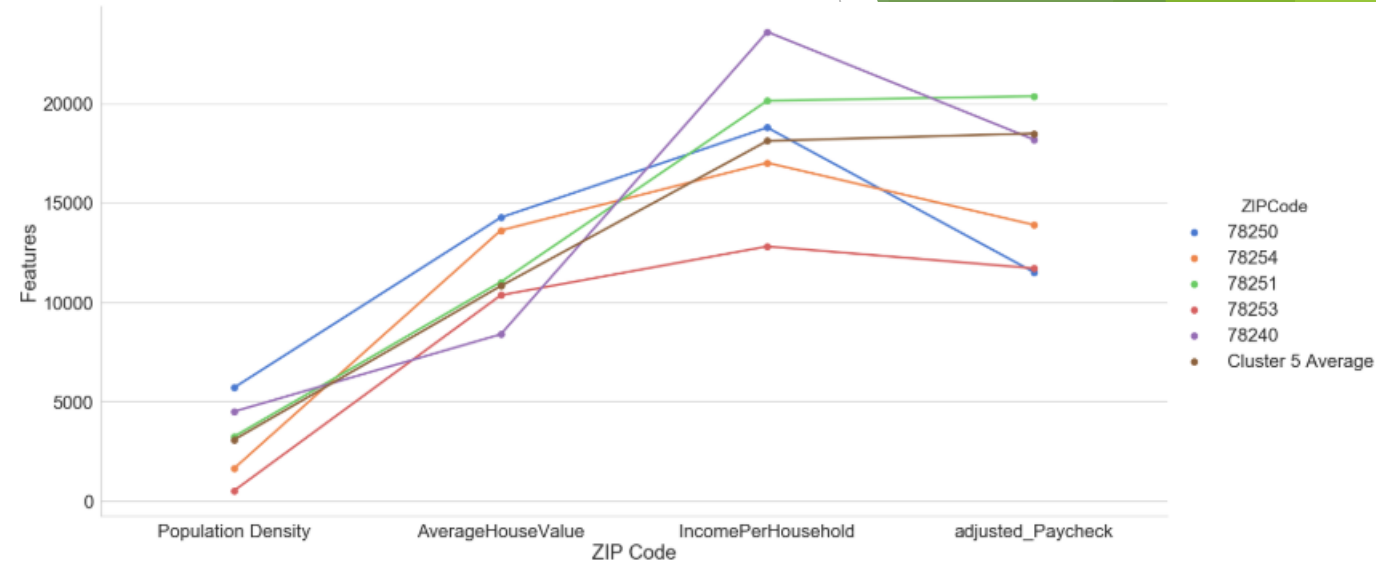
## Legend

- ▶ Darker shades indicate better Zip codes to locate
- ▶ Blue Markers = Premium Barbershop
- ▶ Blue Circles = ZIP code and cluster label



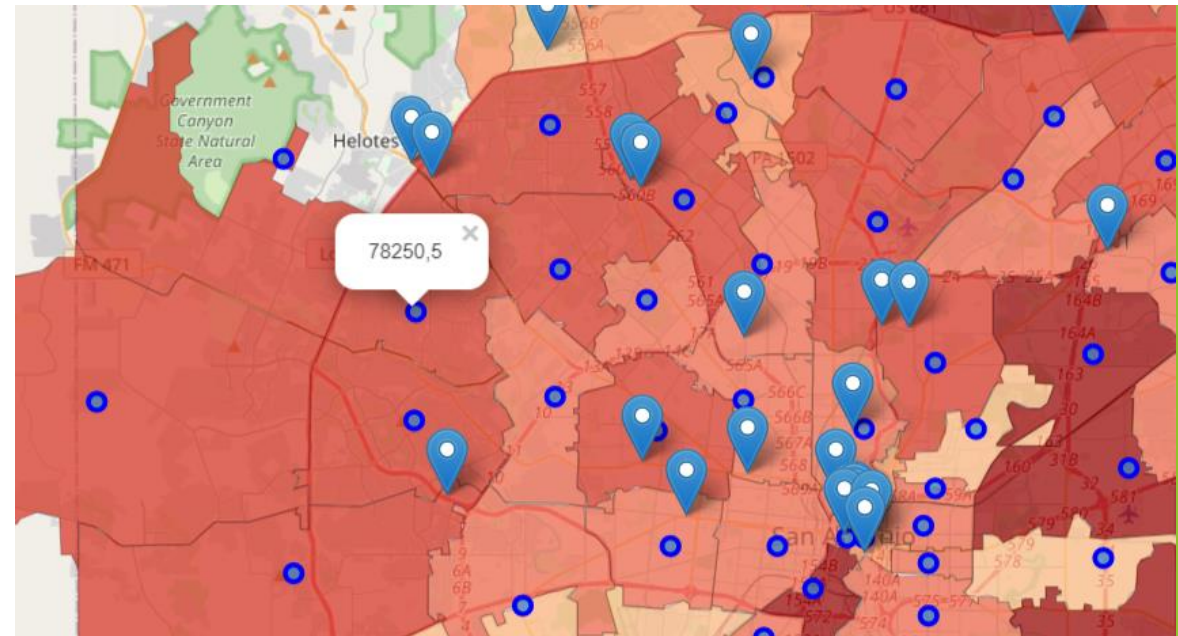
# Recommended Location: 78250

- ▶ 78250 has really good House value and household income metrics
- ▶ Surrounded by other very good locations (see graph)
- ▶ Some competition in adjacent zip codes, but none within the zip code



## Legend

- ▶ Darker shades indicate better Zip codes to locate
- ▶ Blue Markers = Premium Barbershop
- ▶ Blue Circles = ZIP code and cluster label



# Conclusion

- ▶ Built a model that predicted Premium Barbershop locations and suggested new locations based on zipcode.
  - ▶ Validated with the Foursquare Location data that the methodology works
- ▶ 78218 and 78250 are excellent locations for on-ground scouting for locations