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NYC DSA Web-Scraping Project

**Where next, Eataly asks?
Expandeth to wh're, eataly asks**

By Mohamad Sayed

Why Eataly?

The famed International Italian marketplace has grown rapidly over the past dozen of years, so where could it head to next?

1. Intro

The history of Eataly in the US

➡ **First Store:**
New York City, Summer '10

➡ **Expansion to the West Coast**
Las Vegas June '16
Los Angeles October '17

➡ **Predicting Further Growth**
Plenty of untouched metropolitan cities, namely San Francisco and Miami

La grande domanda è ..

Key factors that could be key in the expansion of Eataly in the US

Project Scope

- Understanding Eataly's market strategy through Yelp reviews of existing stores
- Anticipate cities that could fit Eataly's current stores by matching location specific social factors
- Determine the city that fits best with Eataly's existing locations for a lower-risk strategy

Flow of Procedures

I. Scrape yelp reviews of potential cities for data:
   A. Restaurant ratings
   B. Price range of restaurants
   C. Number of Reviews
   D. Location

II. Determine factors based on collected data:
   A. Frequency of restaurants go-ers with similar price power
   B. Highest average rating given by foodies
   C. Ratio of visits for high-end restaurant versus low-end

2. Analysis I

➜ **What**
How do restaurant go-ers vary in their liking for Italian restaurants in different US cities
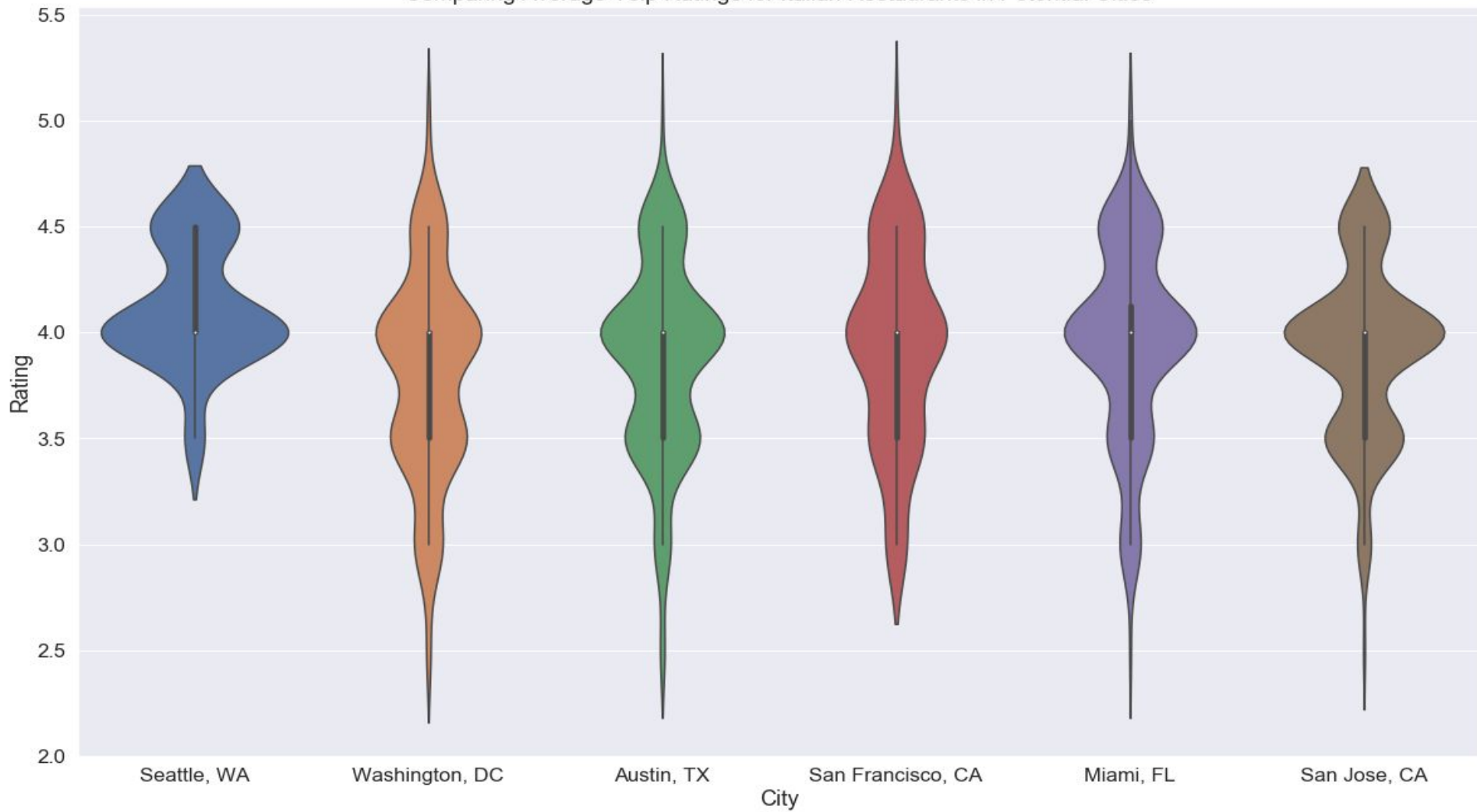
➜ **Result**

Restaurant rating averages and standard deviation per city

| City	Mean	Standard Deviation
Seattle, WA	4.12	0.28
Miami, FL	3.96	0.45
San Francisco, CA	3.92	0.46
San Jose, CA	3.90	0.39
Austin, TX	3.87	0.45
Washington, DC	3.80	0.48

1. With the lowest std dev and the highest mean, Seattle has the best market for Italian food
2. Washington DC is on the opposite spectrum of Seattle, with lower average ratings paired with higher variability

Comparing Average Yelp Ratings for Italian Restaurants in Potential Cities

Comparing Average Yelp Ratings for High-End Italian Restaurants in Potential Cities
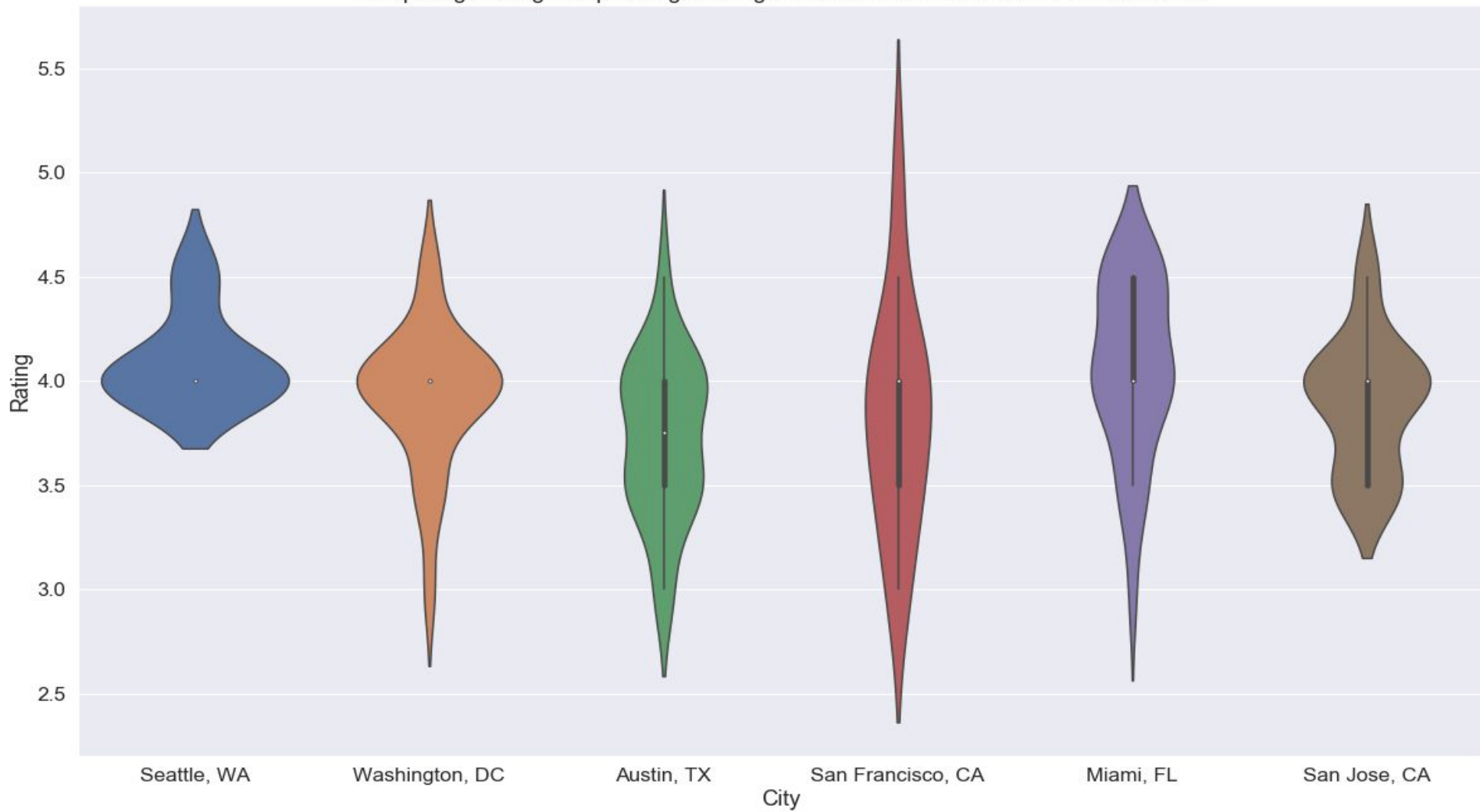
2. Analysis II

➔ **What**
   Is there any noticeable trend of frequency for restaurants of different pricing ranges?

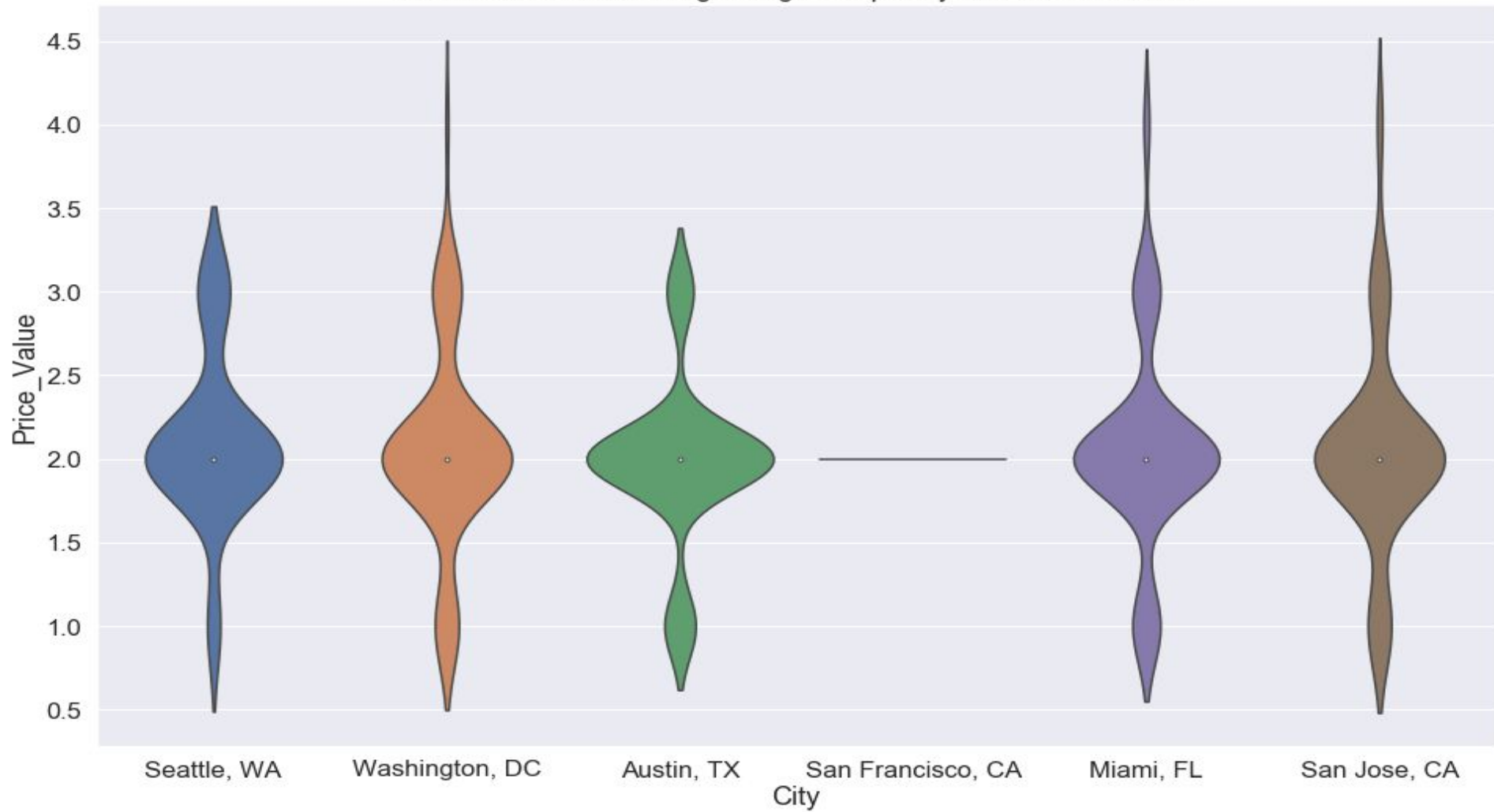➔ **Result**

Ratio of $$ reviews versus all price points

City	Ratio
Washington, DC	0.67
Seattle, WA	0.73
Austin, TX	0.73
Miami, FL	0.74
San Jose, CA	0.77
San Francisco, CA	0.79

1. With the lowest ratio of affordable restaurants , DC seems like an untouched market
2. Seattle comes close, but Northern California is already highly competitive

Distribution of the Pricing of Italian Restaurants

Distribution of the Pricing of High-Frequency Italian Restaurants

2. Analysis III

➜ **What**

Is there any noticeable trend of frequency for restaurants of different pricing ranges?

➜ **Result**

Consumer Review Frequency

| City	Nbr of Reviews	Nbr of Restaurants	Avg Nbr of Reviews per Rest.
Seattle, WA	33,076	30	1103
Miami, FL	160,683	180	893
San Jose, CA	125,217	179	700
Washington, DC	90,181	180	501
Austin, TX	89,271	180	496
San Francisco, CA	28,177	90	313

1. Seattle has the highest average number of reviews per restaurant
   a. Restaurant go-ers are more critical and thus value restaurants more
   b. More frequency in visiting Italian restaurants in Seattle and Florida than others

Ratings per Various Restaurant Prices in Each City
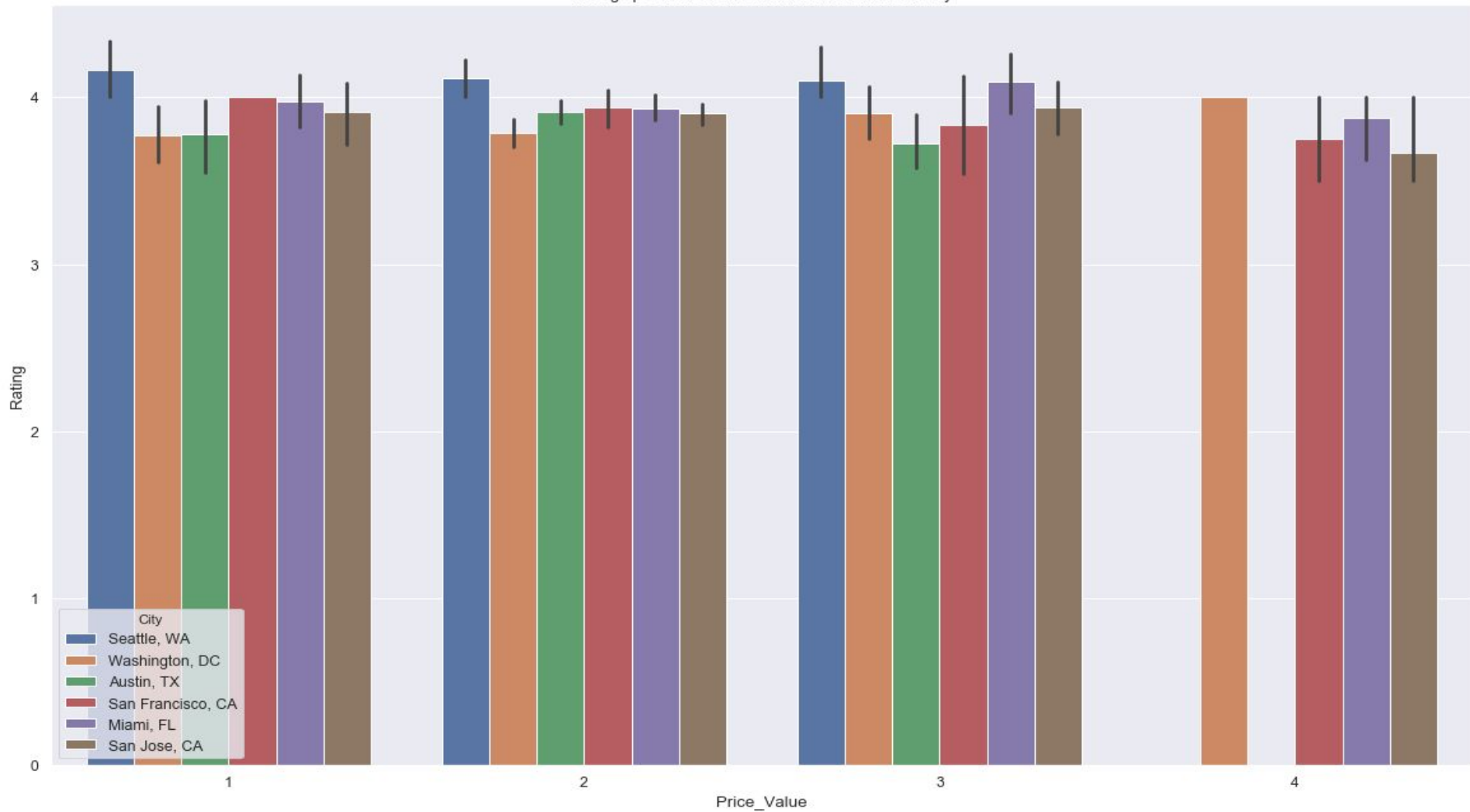
Ratings per Various High-Frequency Restaurant Prices in Each City
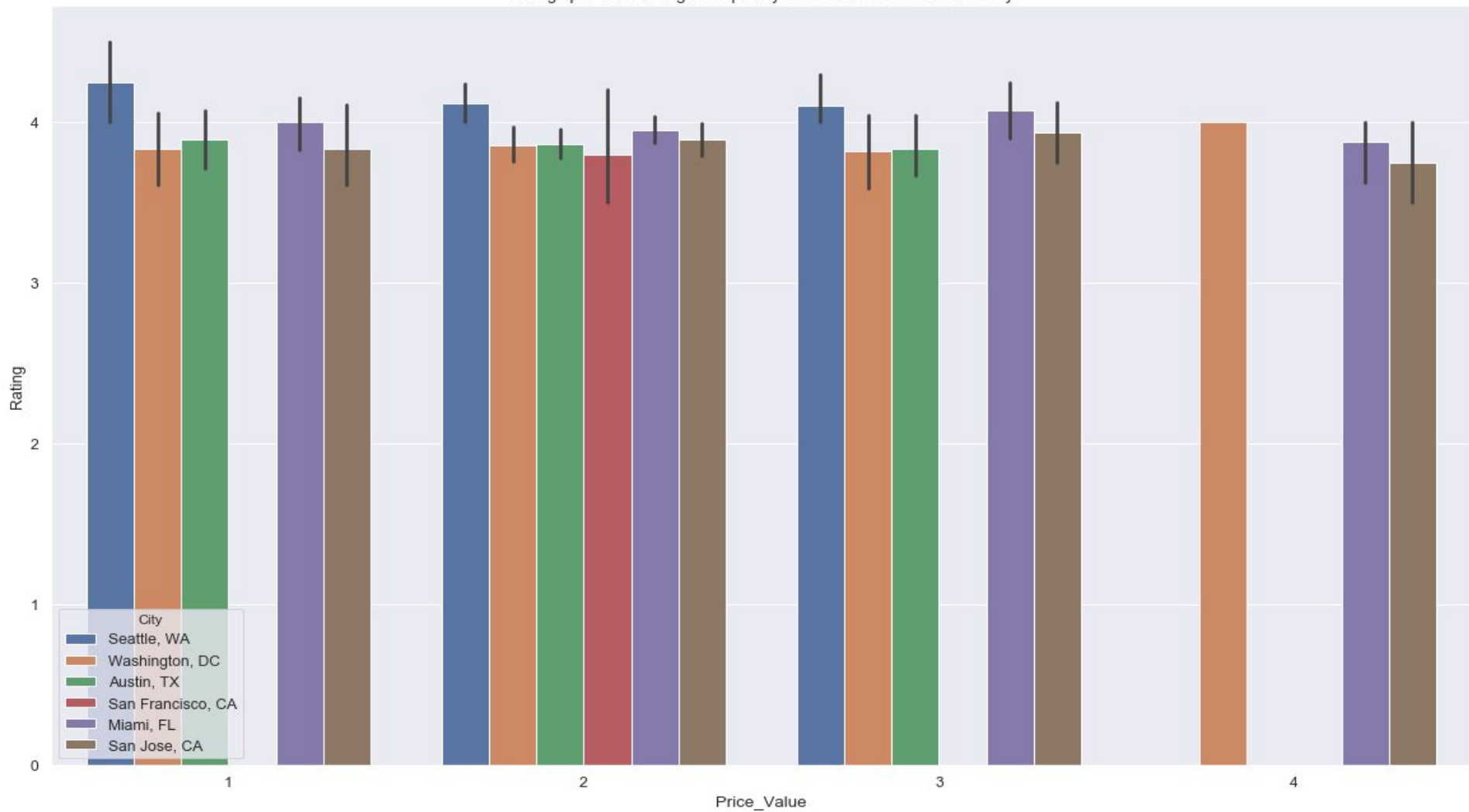
3. Closing

Wait, don't bet on it just yet!

➔ **Results**

◆ Seattle has the best match of Italian restaurant goers with what fits Eataly's current market

◆ Data from Yelp can help determine a trend in customer behaviour, without reaching an absolute conclusion

◆ Socio-economic factors can add further value to the analysis, by comparing similarities within regions

➔ **What's next?**

Future Work

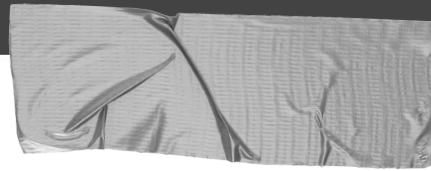**Create a metric for rating each city per Socio-economic factors**

Comparing Italian restaurants with other cuisines to further understand restaurant go-er's desires

Implement a grade system for a more robust and objective assessment of location like-li-hood
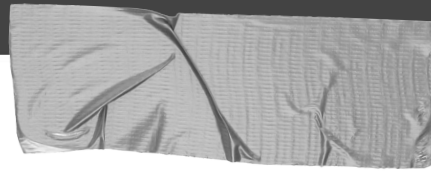
Grazie Mille!

Any questions?

Grazie Mille!

No?!

Come on, por favore!