

Report:

## I. Introduction

This report focuses specifically on the area Houston and the best place to open up a Mexican restaurant in the area. Originally, I was wanting to look at Birmingham, Alabama but after looking through data from the US census it was best to focus on a location where there was a larger Hispanic population. The question of this report is to prove the theory that a Mexican restaurant would do better in the Metro Houston Area based on demographic breakdown and venue data.

## II. Data

This report uses data from the following sites:

[https://en.wikipedia.org/wiki/List\\_of\\_Houston\\_neighborhoods](https://en.wikipedia.org/wiki/List_of_Houston_neighborhoods)

<https://www.census.gov/quickfacts/houstoncitytexas>

Venue Data via Foursquare for Mexican Restaurants in the Houston area- looking specifically by zip code.

## III. Methodology

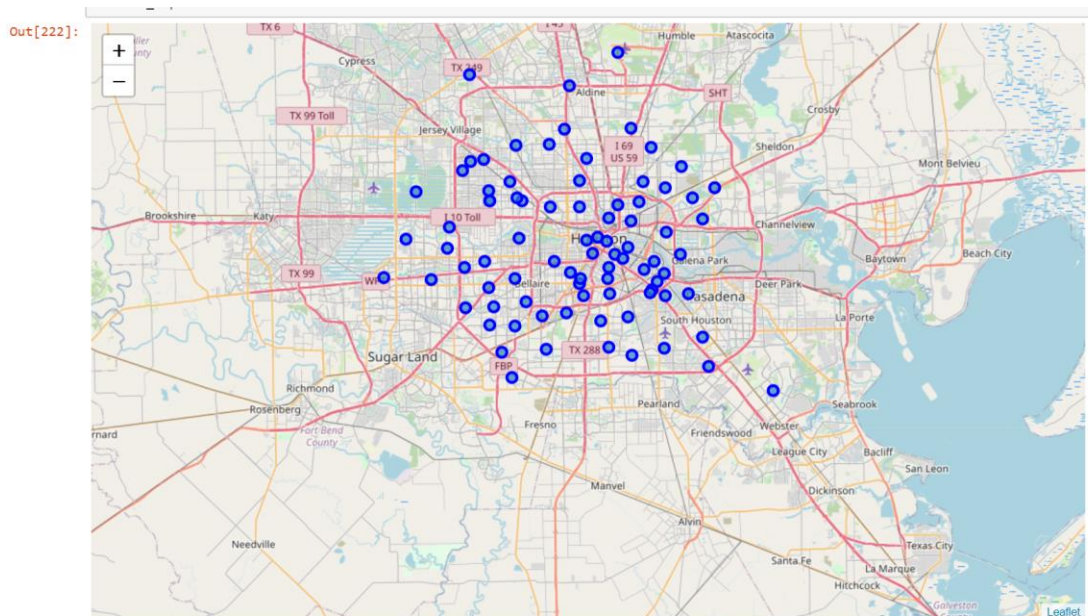
- Web scrapping Wikipedia for neighborhood list
- Cross referencing with US census Data
- Use Foursquare API to get venue data in the Houston Area
- Use latitude and longitude geopy to get coordinates of metro area
- Visualize clusters
- Make a map to overlay clusters using Folium
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## IV. Results/ Discussion

The results of this study proved that my theory was correct. First in the sense that Houston has a larger Hispanic population than Birmingham Alabama as reflected in the US Census Data. Secondly, we saw that there were a

Population estimates, July 1, 2019, (V2019)	NA
Population estimates base, April 1, 2010, (V2018)	2,093,615
Population, percent change - April 1, 2010 (estimates base) to July 1, 2019, (V2019)	NA
Population, percent change - April 1, 2010 (estimates base) to July 1, 2018, (V2018)	11.1%
Population, Census, April 1, 2010	2,099,451
Age and Sex	
Persons under 5 years, percent	7.7%
Persons under 18 years, percent	25.0%
Persons 65 years and over, percent	10.3%
Female persons, percent	50.0%
Race and Hispanic Origin	
White alone, percent	57.6%
Black or African American alone, percent (a)	22.5%
American Indian and Alaska Native alone, percent (a)	0.3%
Asian alone, percent (a)	6.9%
Native Hawaiian and Other Pacific Islander alone, percent (a)	0.1%
Two or More Races, percent	2.1%
Hispanic or Latino, percent (b)	44.8%
White alone, not Hispanic or Latino, percent	24.6%

lot of different zip codes but the majority with a Hispanic origin were located in the city center based on the folium map as we can see below.



Then, I looked specifically at the number of Mexican restaurants in that area. Based on the Foursquare API Data there are only 4 Mexican restaurants in the metro area where there were the most number of clusters in this map.

	name	categories	address	cc	city	country	crossStreet	distance	formattedAddress	labeledLatLngs	lat	lng	po:
0	M R Mexican Grill	Mexican Restaurant	1001 Fannin St Ste M162	US	Houston	United States	NaN	409	[1001 Fannin St Ste M162, Houston, TX 77002, United States]	[[{"label": "display", "lat": 29.756250984167107, "lng": -95.36479746615205}]]	29.756251	-95.364797	770
1	Poblanos Mexican Grill #2	Mexican Restaurant	1000 Main St	US	Houston	United States	Tunnel Level	353	[1000 Main St (Tunnel Level), Houston, TX 77002, United States]	[[{"label": "display", "lat": 29.75651451947814, "lng": -95.36533952769459}]]	29.756515	-95.365340	770
2	El Regio Mexican Grill	Mexican Restaurant	1000 Main St Ste T33	US	Houston	United States	NaN	353	[1000 Main St Ste T33, Houston, TX 77002, United States]	[[{"label": "display", "lat": 29.756482, "lng": -95.365377}]]	29.756482	-95.365377	770
3	m r mexican grill	Mexican Restaurant	NaN	US	Houston	United States	NaN	511	[Houston, TX, United States]	[[{"label": "display", "lat": 29.755855, "lng": -95.363777}]]	29.755855	-95.363777	NaN
4	Chipotle Mexican Grill	Mexican Restaurant	909 Texas St Ste B	US	Houston	United States	Texas & Main	511	[909 Texas St Ste B (Texas & Main), Houston, TX 77002, United States]	[[{"label": "display", "lat": 29.76023602568847, "lng": -95.36261549538631}]]	29.760236	-95.362615	770
5	Jefe Bar	Nightclub	502 Main St	US	Houston	United States	NaN	519	[502 Main St, Houston, TX 77002, United States]	[[{"label": "display", "lat": 29.760602000000002, "lng": -95.362679}, {"label": "entrance", "lat": 29.760577, "lng": -95.36218}]]	29.760602	-95.362679	770

## V. Conclusion

Based on the calculations and data gathered above we can therefore say it would be a fantastic idea to open another Mexican restaurant in the Metro Area of Houston. Mainly because there are not enough Mexican restaurants for the density of the amount of Hispanic people that live in the area. We could have also looked at income to determine the type of Mexican restaurant that would be most successful (expensive vs inexpensive). But our overall conclusion is that the metro area of Houston would be the best place in the city to open a new Mexican Restaurant.