

Business Opportunities in Spring Branch, Houston, Texas

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1. Introduction

Houston's demographics show that it is a large and ethnically diverse metropolis. It is the largest city in the United States by total area. Houston is home to nearly 2.3 million people in 2018. Houston is a minority-majority city, making it the most linguistically diverse city in the world.

Houston is economically diverse also with Trade, Transportation, and Utilities (19.8%), Professional and Business Services (16.5%), Government (13.1%) and Education and Health Services (12.7%) making up 62.1% of the GDP

I currently live in Spring Branch, Houston, Texas. A melting pot of Korean, Polish, and Hispanic immigrants. The growth in Houston has brought gentrification of many neighborhoods. Spring Branch is in the early stages of gentrification and a business that can bridge the gap between culturally and economically diverse communities has the opportunity to do well for years to come.

2. Data Acquisition and Cleaning

For this project we need the following Data:

1. Houston data that contains list Zip Codes, Neighborhoods.
 - Data source: <https://www.houstoniamag.com/home-and-real-estate/2019/03/neighborhoods-by-the-numbers-2019>
 - Description: This data set contains the required information. And we will use this data set to explore various neighborhoods of Houston.
2. Most common venues in each neighborhood of Houston.
 - Data source: Foursquare API
 - Description: By using this API we will get all the venues in each neighborhood. We can filter these venues to get most common venues.
3. GeoSpace data
 - Data source: <https://public.opendatasoft.com/explore/dataset/us-zip-code-latitude-and-longitude/table/>
 - Description: By using this geo space data we will get the Houston Zip Code that will help us visualize choropleth map.

Spring Branch is located between inner city living and suburban lifestyle. Once data is aggregated, the adjacent neighborhoods and developed suburbs of Houston will be under investigation. A table would be generated of the top 10 venues per selected neighborhood this will provide insight for possible business ventures in Spring Branch.

3. Methodology

1. We begin by collecting the Houston neighborhood data and cross reference it with the GeoSpace Data from the following links:
 - a. "<https://www.houstoniamag.com/home-and-real-estate/2019/03/neighborhoods-by-the-numbers-2019> “
 - b. “<https://public.opendatasoft.com/explore/dataset/us-zip-code-latitude-and-longitude/table/>”
2. We will find all venues for each neighborhood using Foursquare API.
3. We will then rank the most common venues for neighborhoods surrounding neighborhoods and suburban and urban gentrified neighborhoods.
4. We will analyze the data for opportunities in Spring Branch

4. Results

Below is a table of the 10 most common venues for Spring Branch, Adjacent Neighborhoods, and Developed Suburbs:

Neighborhood	1st Most Common Venue	2nd Most Common Venue	3rd Most Common Venue	4th Most Common Venue	5th Most Common Venue	6th Most Common Venue	7th Most Common Venue	8th Most Common Venue	9th Most Common Venue	10th Most Common Venue
Spring Branch	Food	Insurance Office	Mexican Restaurant	Concert Hall	Bank	Flea Market	Yoga Studio	Gastropub	Gas Station	Garden Center
Briargrove	Pool	Playground	Park	Massage Studio	Event Service	Flea Market	Gas Station	Garden Center	Furniture / Home Store	Frozen Yogurt Shop
Briargrove Park/Walnut Bend	Hotel	Dessert Shop	Juice Bar	Shipping Store	Bank	Burger Joint	Mediterranean Restaurant	Coworking Space	Food	Café
Timbergrove/Lazybrook	Art Gallery	Yoga Studio	Restaurant	Mexican Restaurant	Breakfast Spot	Seafood Restaurant	Sushi Restaurant	Gourmet Shop	Beer Garden	Fast Food Restaurant
Rice Military/Washington Corridor	Bar	Mediterranean Restaurant	Gym	Food Truck	Sports Bar	Burger Joint	Taco Place	Sandwich Place	Wings Joint	Massage Studio
Washington East/Sabine	Bar	Mediterranean Restaurant	Gym	Food Truck	Sports Bar	Burger Joint	Taco Place	Sandwich Place	Wings Joint	Massage Studio
Memorial Villages	Clothing Store	Deli / Bodega	General Entertainment	Gastropub	Gas Station	Garden Center	Furniture / Home Store	Frozen Yogurt Shop	Fried Chicken Joint	Food Truck
Memorial West	Fried Chicken Joint	Deli / Bodega	Convenience Store	Mexican Restaurant	Soccer Field	Food Truck	Sandwich Place	Bookstore	Bistro	Supermarket
Oak Forest West Area	Moving Target	Yoga Studio	Flea Market	Gastropub	Gas Station	Garden Center	Furniture / Home Store	Frozen Yogurt Shop	Fried Chicken Joint	Food Truck
Shepherd Park Plaza Area	Spa	Bank	Gas Station	Mexican Restaurant	Smoothie Shop	Sports Bar	Business Service	Swim School	Liquor Store	Bar
Tanglewood Area	Sandwich Place	Coffee Shop	Bank	Park	Deli / Bodega	Smoothie Shop	Vietnamese Restaurant	Supermarket	Food Truck	Shipping Store
Oak Forest East Area	Spa	Bank	Gas Station	Mexican Restaurant	Smoothie Shop	Sports Bar	Business Service	Swim School	Liquor Store	Bar
Eldridge North	Waste Facility	Mexican Restaurant	Home Service	Restaurant	Yoga Studio	Fast Food Restaurant	Gas Station	Garden Center	Furniture / Home Store	Frozen Yogurt Shop
Katy - Southwest	Athletics & Sports	Auto Garage	Yoga Studio	Food	General Travel	General Entertainment	Gastropub	Gas Station	Garden Center	Furniture / Home Store
Katy - Old Towne	Construction & Landscaping	Home Service	Yoga Studio	Fast Food Restaurant	Gastropub	Gas Station	Garden Center	Furniture / Home Store	Frozen Yogurt Shop	Fried Chicken Joint
Cypress North	Park	Taxi	Bar	Yoga Studio	Flea Market	Gastropub	Gas Station	Garden Center	Furniture / Home Store	Frozen Yogurt Shop
Cypress South	Pharmacy	Bubble Tea Shop	Bank	Ice Cream Shop	Japanese Restaurant	Cajun / Creole Restaurant	Fried Chicken Joint	Fast Food Restaurant	General Entertainment	Gastropub
Katy - Southeast	Pizza Place	Bubble Tea Shop	Bank	Coffee Shop	Mexican Restaurant	Korean Restaurant	Ice Cream Shop	Spa	Seafood Restaurant	Fried Chicken Joint
Katy - North	Professional & Other Places	Business Service	Yoga Studio	Gastropub	Gas Station	Garden Center	Furniture / Home Store	Frozen Yogurt Shop	Fried Chicken Joint	Food Truck
Sugar Land South	Tennis Court	Theater	Yoga Studio	Flea Market	Gastropub	Gas Station	Garden Center	Furniture / Home Store	Frozen Yogurt Shop	Fried Chicken Joint

To make sense of the data a count and weighted count was taken of all the venues to prioritize the trends tables. Count is defined number of times a venue appeared in the table. Weighted count is defined as count times its weight. The weighting system used is the following:

1st Most Common Venue	10
2nd Most Common Venue	9
3rd Most Common Venue	8
4th Most Common Venue	7
5th Most Common Venue	6
6th Most Common Venue	5
7th Most Common Venue	4
8th Most Common Venue	3
9th Most Common Venue	2
10th Most Common Venue	1

The derived table are below:

Total Data Set		
Venue	Count	Weighted Count
Restaurant	23	135
Yoga Studio	9	67
Food	16	66
Gas Station	12	61
Bar	10	60
Bank	7	54
Mexican Restaurant	7	51
Gastropub	9	46
Garden Center	10	35
Flea Market	5	31
Spa	4	26
Park	3	25
Furniture / Home Store	9	25
Deli / Bodega	3	24
Food Truck	7	24
Fried Chicken Joint	8	23
Mediterranean Restaurant	3	22
Sports Bar	4	22
Sandwich Place	4	20
Bubble Tea Shop	2	18
Home Service	2	17
Business Service	3	17
Smoothie Shop	3	17
Coffee Shop	2	16
Gym	2	16
Fast Food Restaurant	4	16
Frozen Yogurt Shop	8	16
General Entertainment	3	15
Burger Joint	3	15
Ice Cream Shop	2	11
Pool	1	10
Hotel	1	10
Art Gallery	1	10
Athletics & Sports	1	10
Clothing Store	1	10
Construction & Landscaping	1	10
Moving Target	1	10
Pharmacy	1	10
Pizza Place	1	10
Professional & Other Places	1	10
Tennis Court	1	10
Waste Facility	1	10
Playground	1	9
Dessert Shop	1	9
Auto Garage	1	9
Insurance Office	1	9
Taxi	1	9
Theater	1	9
Massage Studio	3	9
Juice Bar	1	8
Convenience Store	1	8
Shipping Store	2	8
Taco Place	2	8
Concert Hall	1	7
Seafood Restaurant	2	7
Event Service	1	6
Breakfast Spot	1	6
General Travel	1	6
Soccer Field	1	6
Japanese Restaurant	1	6
Swim School	2	6
Cajun / Creole Restaurant	1	5
Korean Restaurant	1	5
Sushi Restaurant	1	4
Vietnamese Restaurant	1	4
Supermarket	2	4
Wings Joint	2	4
Liquor Store	2	4
Coworking Space	1	3
Gourmet Shop	1	3
Bookstore	1	3
Beer Garden	1	2
Bistro	1	2
Café	1	1

Spring Branch		
Venue	Count	Weighted Count
Food	1	10
Insurance Office	1	9
Restaurant	1	8
Mexican Restaurant	1	8
Concert Hall	1	7
Bank	1	6
Flea Market	1	5
Yoga Studio	1	4
Gastropub	1	3
Gas Station	1	2
Garden Center	1	1

Adjacent Neighborhoods		
Venue	Count	Weighted count
Restaurant	15	93
Bar	9	52
Mexican Restaurant	5	37
Food	10	36
Gas Station	6	36
Bank	4	32
Yoga Studio	3	24
Deli / Bodega	3	24
Spa	3	23
Food Truck	6	23
Mediterranean Restaurant	3	22
Sports Bar	4	22
Sandwich Place	4	20
Smoothie Shop	3	17
Garden Center	4	16
Gym	2	16
Park	2	15
Burger Joint	3	15
Gastropub	2	14
Fried Chicken Joint	3	14
Flea Market	2	13
Furniture / Home Store	4	12
Pool	1	10
Hotel	1	10
Art Gallery	1	10
Clothing Store	1	10
Moving Target	1	10
Waste Facility	1	10
Coffee Shop	1	9
Playground	1	9
Dessert Shop	1	9
Massage Studio	3	9
Home Service	1	8
Business Service	2	8
Frozen Yogurt Shop	4	8
General Entertainment	1	8
Juice Bar	1	8
Convenience Store	1	8
Shipping Store	2	8
Taco Place	2	8
Fast Food Restaurant	2	6
Event Service	1	6
Breakfast Spot	1	6
Soccer Field	1	6
Swim School	2	6
Seafood Restaurant	1	5
Sushi Restaurant	1	4
Vietnamese Restaurant	1	4
Supermarket	2	4
Wings Joint	2	4
Liquor Store	2	4
Coworking Space	1	3
Gourmet Shop	1	3
Bookstore	1	3
Beer Garden	1	2
Bistro	1	2
Café	1	1

Developed Suburbs		
Venue	Count	Weighted count
Yoga Studio	5	39
Restaurant	7	34
Gastropub	6	29
Gas Station	5	23
Food	5	20
Garden Center	5	18
Bubble Tea Shop	2	18
Bank	2	16
Flea Market	2	13
Furniture / Home Store	5	13
Ice Cream Shop	2	11
Park	1	10
Fast Food Restaurant	2	10
Athletics & Sports	1	10
Construction & Landscaping	1	10
Pharmacy	1	10
Pizza Place	1	10
Professional & Other Places	1	10
Tennis Court	1	10
Fried Chicken Joint	5	9
Home Service	1	9
Business Service	1	9
Auto Garage	1	9
Taxi	1	9
Theater	1	9
Bar	1	8
Frozen Yogurt Shop	4	8
Coffee Shop	1	7
General Entertainment	2	7
Mexican Restaurant	1	6
General Travel	1	6
Japanese Restaurant	1	6
Cajun / Creole Restaurant	1	5
Korean Restaurant	1	5
Spa	1	3
Seafood Restaurant	1	2
Food Truck	1	1

Adjacent Neighborhoods and Developed Suburbs		
Venue	Count	Weighted count
Restaurant	22	127
Yoga Studio	8	63
Bar	10	60
Gas Station	11	59
Food	15	56
Bank	6	48
Mexican Restaurant	6	43
Gastropub	8	43
Garden Center	9	34
Flea Market	4	26
Spa	4	26
Park	3	25
Furniture / Home Store	9	25
Deli / Bodega	3	24
Food Truck	7	24
Fried Chicken Joint	8	23
Mediterranean Restaurant	3	22
Sports Bar	4	22
Sandwich Place	4	20
Bubble Tea Shop	2	18
Home Service	2	17
Business Service	3	17
Smoothie Shop	3	17
Coffee Shop	2	16
Gym	2	16
Fast Food Restaurant	4	16
Frozen Yogurt Shop	8	16
General Entertainment	3	15
Burger Joint	3	15
Ice Cream Shop	2	11
Pool	1	10
Hotel	1	10
Art Gallery	1	10
Athletics & Sports	1	10
Clothing Store	1	10
Construction & Landscaping	1	10
Moving Target	1	10
Pharmacy	1	10
Pizza Place	1	10
Professional & Other Places	1	10
Tennis Court	1	10
Waste Facility	1	10
Playground	1	9
Dessert Shop	1	9
Auto Garage	1	9
Taxi	1	9
Theater	1	9
Massage Studio	3	9
Juice Bar	1	8
Convenience Store	1	8
Shipping Store	2	8
Taco Place	2	8
Seafood Restaurant	2	7
Event Service	1	6
Breakfast Spot	1	6
General Travel	1	6
Soccer Field	1	6
Japanese Restaurant	1	6
Swim School	2	6
Cajun / Creole Restaurant	1	5
Korean Restaurant	1	5
Sushi Restaurant	1	4
Vietnamese Restaurant	1	4
Supermarket	2	4
Wings Joint	2	4
Liquor Store	2	4
Coworking Space	1	3
Gourmet Shop	1	3
Bookstore	1	3
Beer Garden	1	2
Bistro	1	2
Café	1	1

I identified three groups (Well represented, Represented, Under represented) for businesses in Spring Branch by comparing the Spring Branch and Total Data Set.

Well represented venues are in the top 5 Spring Branch and top 10 of the Total Data set. These businesses are well represented and have the lower potential to be a successful business. The venues identified are Restaurant, Food, Bank, and Mexican Restaurants.

Represented venues are in rankings 6 – 10 Spring Branch and top 10 of the Total Data set. These businesses are represented and have medium potential to be a successful business. The venues identified are Yoga Studio, Gas Station, Gastropub, Garden Center, and Flea Market.

Under represented venues are not top 10 venues in Spring Branch and top 10 of the Total Data set. These businesses are represented and have higher potential to be a successful business. The venues identified are Bar, Spa, and Parks.

5. Discussion

I recommend opening a Yoga Studio, Bar, Gastropub, or Garden Center. Yoga Studio and Bar had significantly higher weighted counts, about 20 more, than Gastropub and Garden Center.

Next steps are to validate choice by cross referencing other data sources, reviewing recently submitted business permits, and market research on convenient locations and business need.

6. Conclusion

The growth in Houston has brought gentrification of many neighborhoods. Spring Branch is in the early stages of gentrification and a business that can bridge the gap between culturally and economically diverse communities has the opportunity to do well for years to come.

I recommend opening a Yoga Studio, Bar, Gastropub, or Garden Center in Spring Branch. These businesses possess medium to high potential to be successful. Drawn from interpreting popular venues around Houston.

To elevate this study to the next level validating model by cross referencing other data sources, review recently submitted business permits in Spring Branch, and market research on convenient locations and need.