

Hot Cities in Tulsa County for Establishing Pizza Restaurant

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1.0 Introduction

1.1 Background

People living in Tulsa County of the State of Oklahoma, USA desire to enjoy amenities that the cities have to offer. Among many other things, proximity and ease of getting nearby restaurants is considered important for individual relocating to Tulsa county. This information is particularly important for entrepreneurs that desire to establish restaurants within the cities of this county

1.2 Problem

Data needed for making a decision on the cities of Tulsa with nearest restaurant (pizza spot as a case study) for Tulsa county residents and hot cities for entrepreneurs to consider for establishing more pizza spot (or other food restaurants) will include the number of restaurants in each cities, the mean distance (a measure of proximity to the nearest pizza spot) and more importantly the population or population density

1.3 Target Group

The entrepreneurs are the main target of this project. Obviously, entrepreneurs and investors are interested in discovering the best location where their service will be needed most. This will guarantee huge profit on their investment

Another target group is the residents of Tulsa county and people relocating to Tulsa county for jobs, education or other purposes. They will be more than willing to reside in an area where they can easily get to any restaurant of their choice.

COVID-19 situation has given more importance to the benefit of living in an area densely surrounded by restaurants. The lockdown has caused many residents to rely on services of DOORDASH, Uber eat etc. and the drivers rendering these services are reluctant toward driving long distance. This situation has left the residents living far from restaurant location at the mercy of the drivers rendering food delivery services.

2. Data Source and Acquisition

2.1 Data Source

Information about the cities in Tulsa county can be found on Tulsa county webpage (<https://www.tulsacounty.org/tulsacounty/dynamic.aspx?id=2336>). There are 14 cities listed. Tulsa city is the capital of Tulsa county. Demographic information showing population of each city in Tulsa county were obtained from <https://statisticalatlas.com/metro-area/Oklahoma/Tulsa/Population>.

2.2 Data Acquisition

Data about the number of pizza restaurants in each city were acquire from Foursquare API which is a location data provider. I made a call to request data about venue with venue ID for cities within the Tulsa county. I simply add unique ID for pizza restaurants/spots. With

personal (free) account I was able to get the data needed. The information was passed into the dataframe and a table was created as follows

	city	Total pizza spot
0	Broken Arrow	50
1	Bixby	92
2	Catoosa	59
3	Claremore	59
4	Collinsville	51
5	Coweta	49
6	Glenpool	75
7	Jenks	93
8	Owasso	46
9	Sand Springs	96
10	Sapulpa	90
11	Skiatook	66
12	Turley	78
13	Tulsa	103

Table1: Number of pizza spot in cities of Tulsa County, OK, USA

3. Data Analysis

Table 1 shows the number of pizza spots in each restaurant. The table was used to plot a histogram (Figure 1).

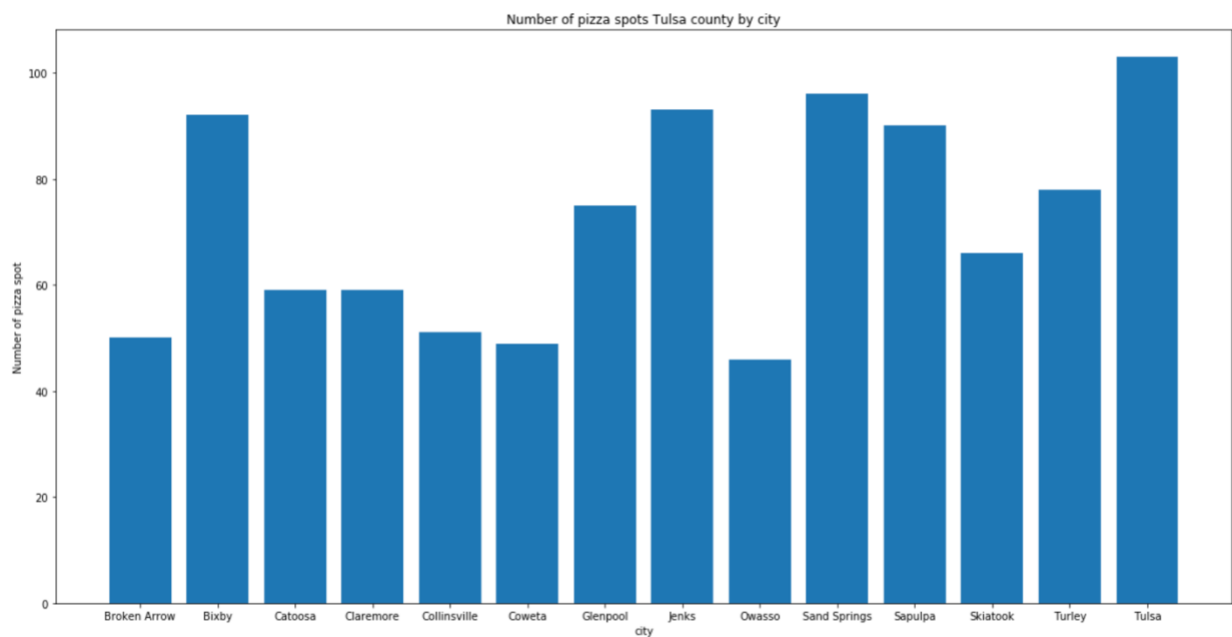


Figure1: Histogram showing number of pizza spot in cities of Tulsa County, OK, USA

Foursquare API was also called to generate a data for the mean distance of pizza spot for each city. This shows how densely or sparsely populated a city is with pizza spots. Table 2 and Figure 2 clearly show that Coweta is the most sparsely populated city and Owasso is the most densely populated city in terms of the number of pizza spots.

	city	Total pizza spot	Mean distance
0	Broken Arrow	50	0.08733299891156909
1	Bixby	92	0.09839337438925452
2	Catoosa	59	0.25228400069372814
3	Claremore	59	0.16067866417436527
4	Collinsville	51	0.07235974584340109
5	Coweta	49	0.371403005179296
6	Glenpool	75	0.06922962877863599
7	Jenks	93	0.0741682772168418
8	Owasso	46	0.012783102047853398
9	Sand Springs	96	0.09940114028206581
10	Sapulpa	90	0.09295076697665372
11	Skiatook	66	0.13541795037280457
12	Turley	78	0.0931281408188858
13	Tulsa	103	0.0634125254239628

Table2: Number of pizza spot in cities of Tulsa County, OK, USA and the mean distance

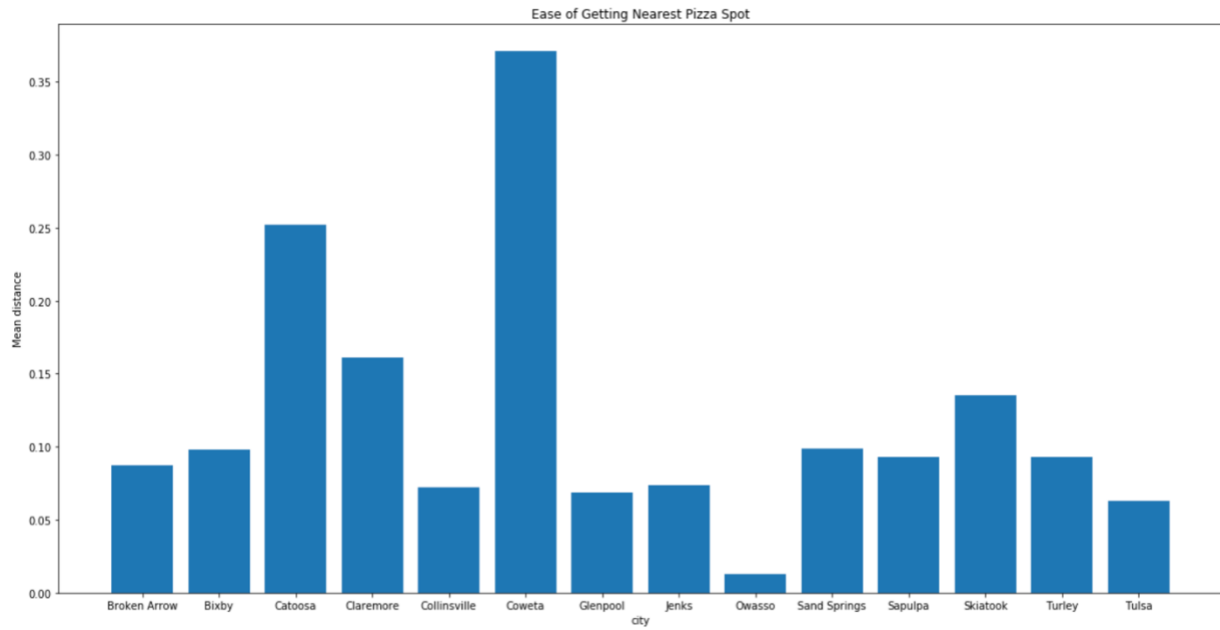


Figure2: Histogram showing mean distance of pizza spots in cities of Tulsa County, OK, USA

Lastly, population data was also employed for the project. Table 3 and Figure 3 show the population of cities in Tulsa county

	city	Total pizza spot	Mean distance	Population in 1000
0	Broken Arrow	50	0.08733299891156909	104.87
1	Bixby	92	0.09839337438925452	23.96
2	Catoosa	59	0.25228400069372814	7.49
3	Claremore	59	0.16067866417436527	19.00
4	Collinsville	51	0.07235974584340109	6.29
5	Coweta	49	0.371403005179296	9.57
6	Glenpool	75	0.06922962877863599	12.35
7	Jenks	93	0.0741682772168418	19.85
8	Owasso	46	0.012783102047853398	33.60
9	Sand Springs	96	0.09940114028206581	19.51
10	Sapulpa	90	0.09295076697665372	20.55
11	Skiatook	66	0.13541795037280457	7.96
12	Turley	78	0.0931281408188858	2.53
13	Tulsa	103	0.0634125254239628	399.91

Table3: Number of pizza spot in cities of Tulsa County, OK, USA with mean distance and city population

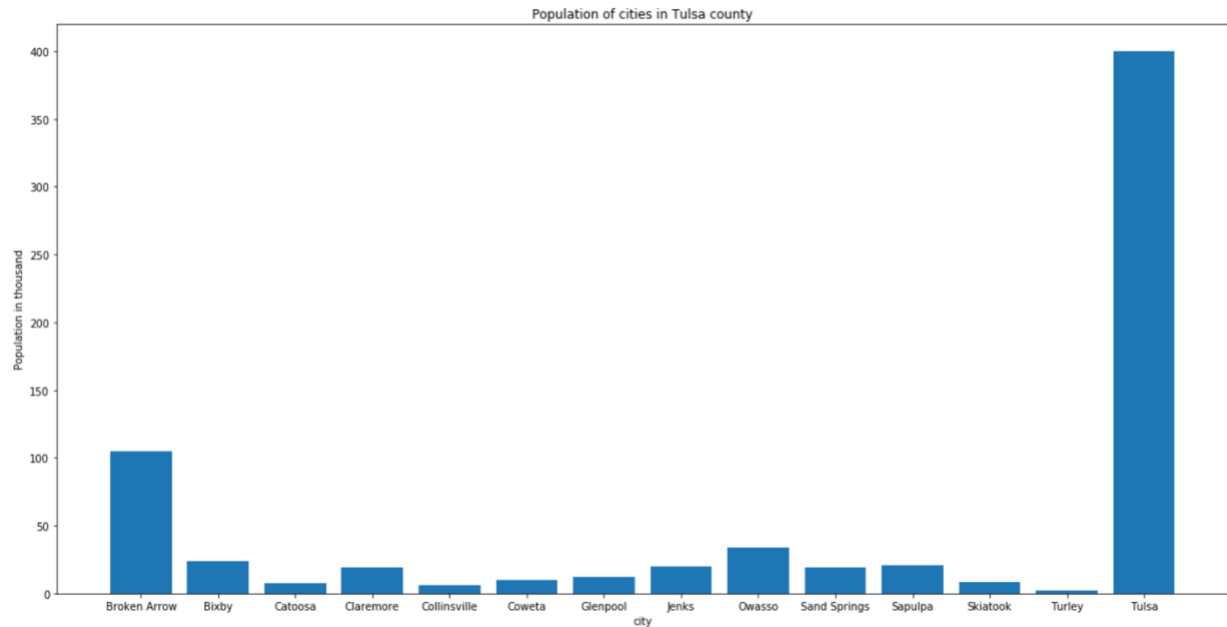


Table3: Histogram showing population in cities of Tulsa County, OK, USA

4. Discussion

The city of Tulsa has the highest number of pizza spots in Tulsa county with a total of 103 spots. It is followed by Sand Springs, Jenks, Bixby and Sapulpa with a total of 96, 93, 92 and 90 spots respectively. Using the mean distance data, Owasso, Tulsa, and Glenpool are the cities with low mean distance. These should be considered the hot spot for pizza. It is important to consider the population of these cities. Population data reveals Tulsa as the most populated city, followed by Broken Arrow and Owasso. These cities especially Tulsa should be considered hot cities for establishing more pizza spot

5. Conclusion

In conclusion an entrepreneur wishing to establish pizza restaurant (or other food restaurants) in cities of Tulsa county should consider Tulsa city first