

# **Analysis of current market conditions for success of a small robot-run cafe in Los Angeles**

**Sprint 9**

**Project Research**

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**The research has been conducted in July 2023.**

# General Conclusions - 1:

- Most of the establishments are in the restaurant category.
- Bakeries, bars, Pizza and Cafe are the least popular.
- The fast-food establishment with relatively small share is just behind the restaurants.
- The nonchain establishments prevail with over half of the market share. Chain restaurants are about 40%.
- Within the chain establishments, the restaurant category prevails, however, its share is smaller than that within the nonchain kind. Fast-food restaurants take much bigger share, compared to the nonchain.

# General Conclusions - 2:

- Restaurants and fast-food are most typical in chains, with bars being the least popular type of establishment within chain restaurants.
- In nonchain restaurants are largest share of the market with Pizza places and cafes being the least popular.
- The chain establishments are characterized by many establishments with a small number of seats - 44 seats or less. Out of 3,676 establishments, about 2,900 have under 50 seats.
- Based on average seating by chain, there's no strong connection between the size of the chain and the number of seatings.

# General Conclusions - 3:

- Restaurants on average have greater number of seats, with bars just a little behind.
- Bakeries have the least number of seats, and cafes are just a little above them.
- Fast-food and pizza places are in the middle.
- Top 10 streets with the largest number of restaurants are Sunset Blvd, Wilshire Blvd, Pico Blvd, Western Ave, Figueroa St, Olympic Ave, Vermont Ave, Santa Monica Blvd, 3rd St, Hollywood Ave. Sunset Blvd has the largest number of restaurants and Hollywood Ave has the smallest amount out of the top 10 streets.

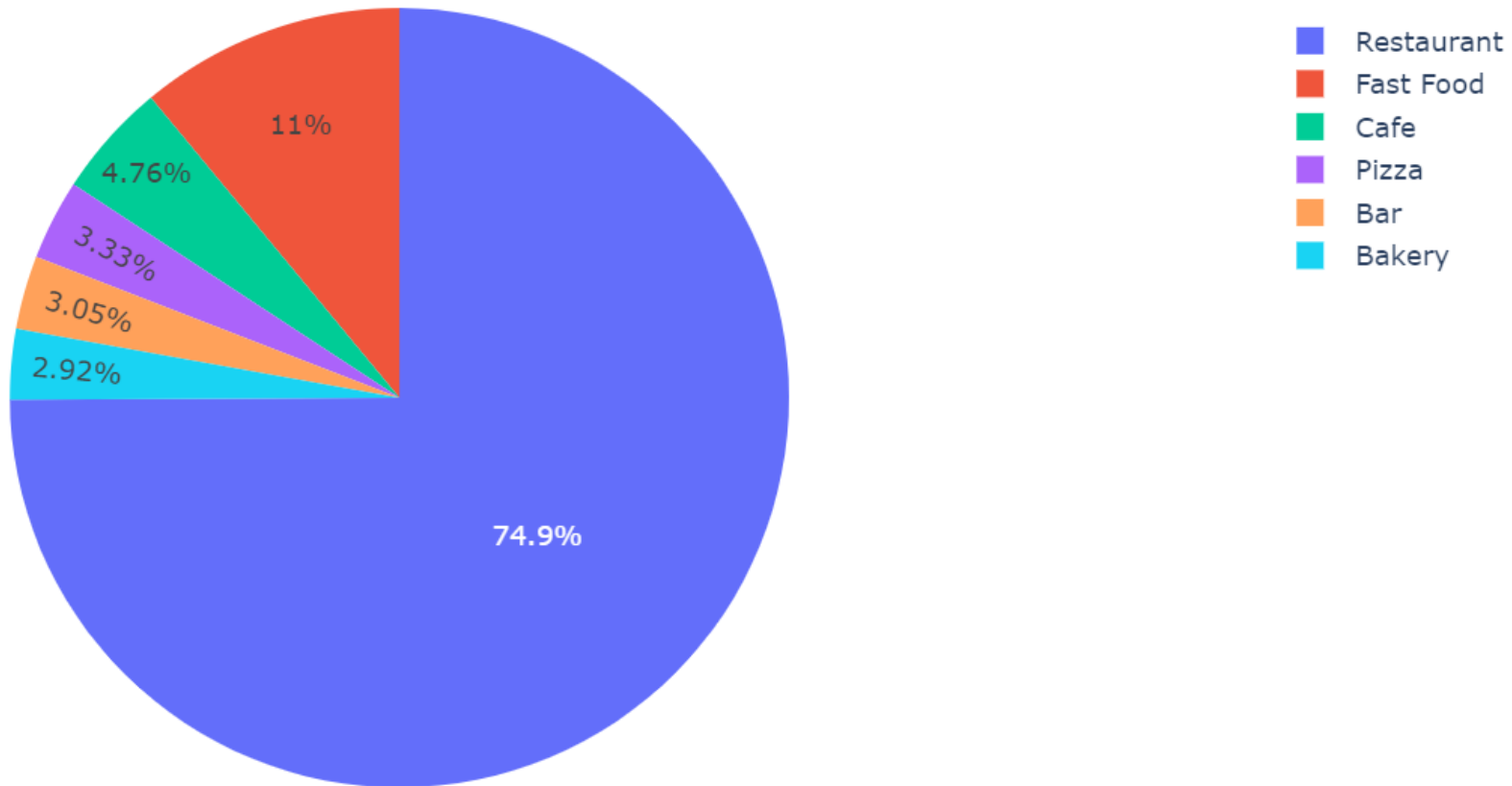
# General Conclusions - 4:

- There are 186 streets with only 1 restaurant in Los Angeles.
- At streets with many restaurants, the restaurant category as well on average has greater number of seats, with bars just a little behind. Bakeries have the least number of seats, and cafes are just a little above them. Fast-food and pizza places are in the middle.
- The largest average number of seats at top 10 streets is at Hollywood Ave, Wilshire Blvd, Olympic Ave, Sunset Blvd. Santa Monica Blvd has the least seats on average.
- At all streets, there's concentration of relatively restaurants with under 50 seats. The Olympic Ave, Sunset Blvd, Hollywood Ave, and Wilshire Blvd have dense concentration of larger restaurants with above 50 seats.

# 1. Proportions of various types of establishments

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- The proportion of the restaurants is the largest - 74.9%.
- The fast-food establishment with 11% share is just behind.
- Bakeries and bars are the least popular - 2.92% and 3.05% respectively, with Pizza and cafe being not far ahead - 3.33% and 4.76% respectively.

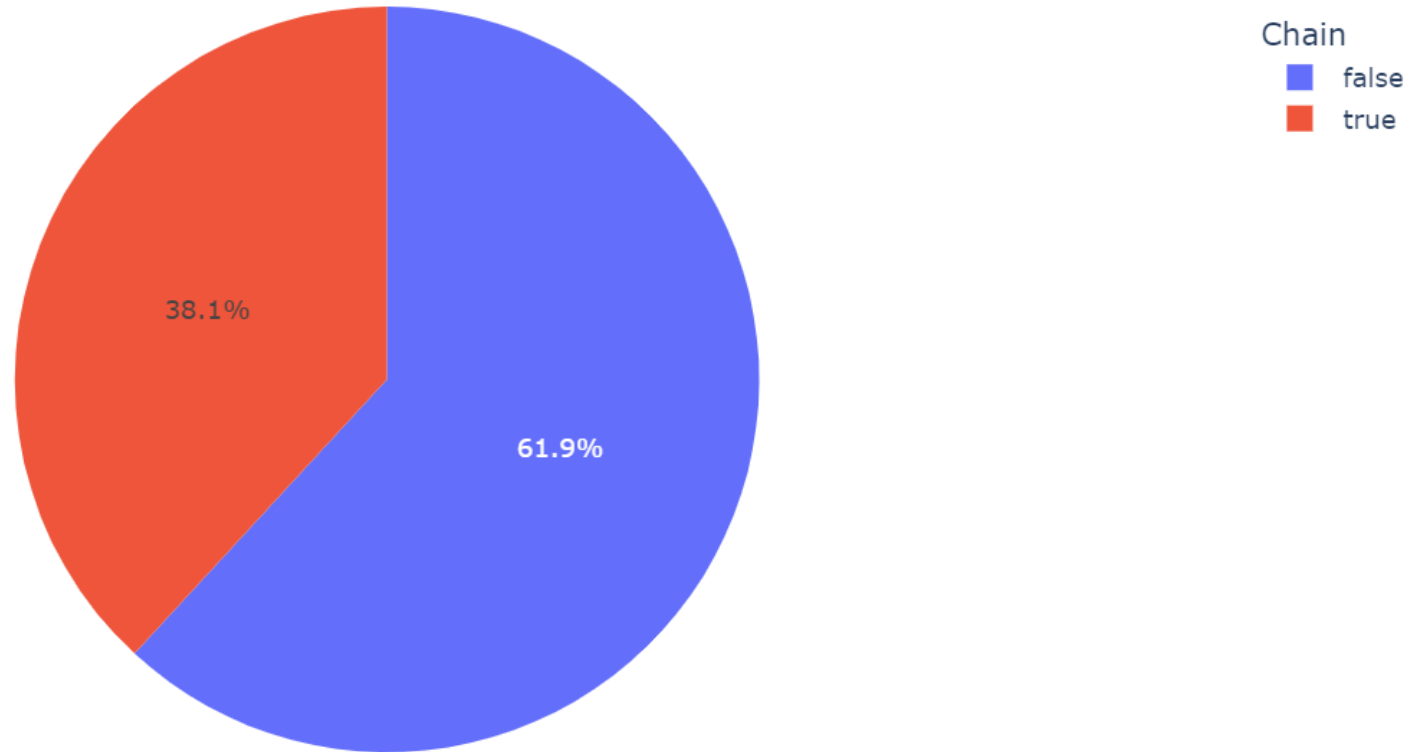


Source: open-source on restaurants in LA

## 2. Proportions of total chain and nonchain establishments

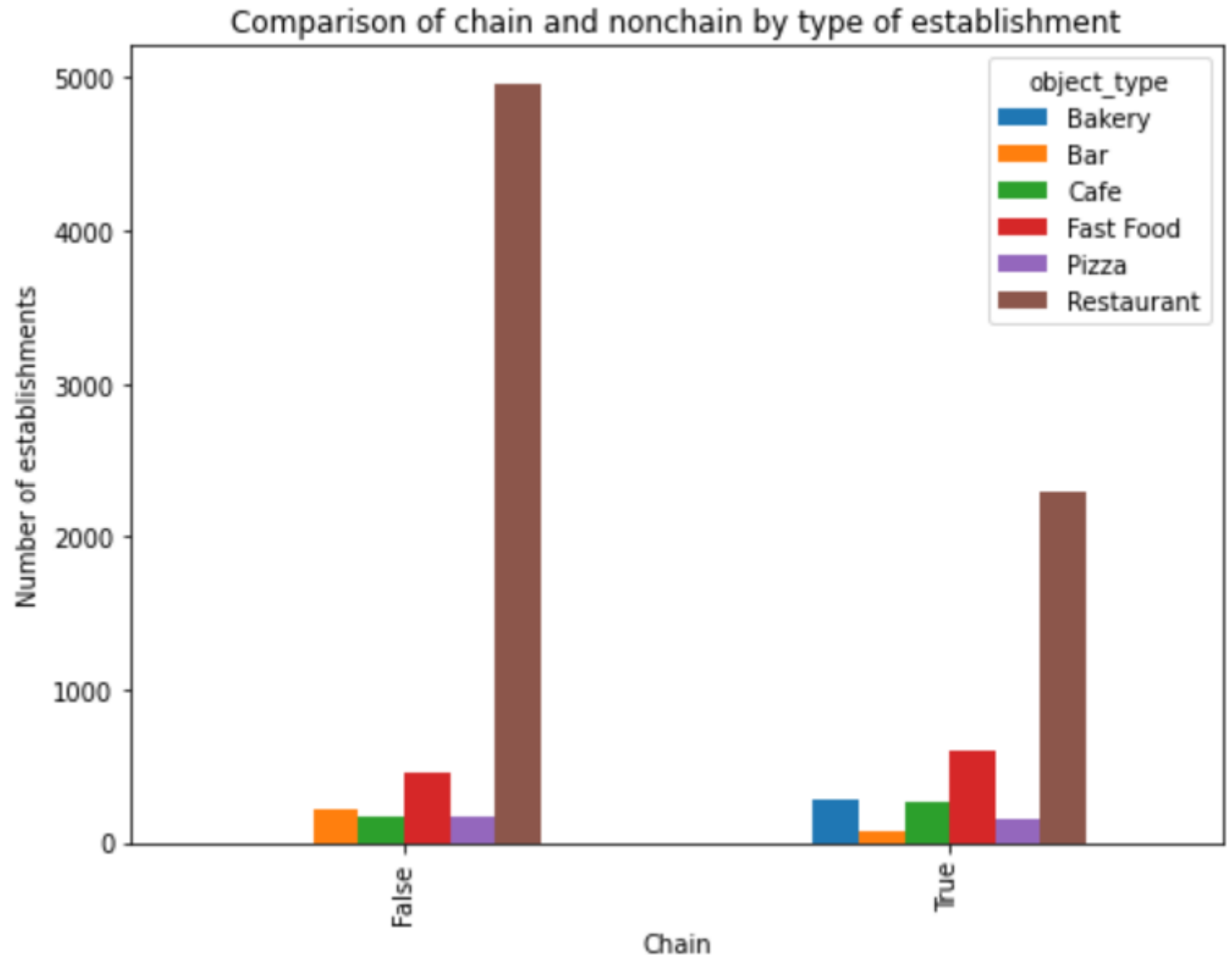
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- The nonchain restaurants with almost 62% of market share prevail. Chain restaurants are only 38%.



### 3. Which type of establishment is typically a chain?

- Within the chain establishments, the restaurant category prevails, however, its share is smaller than that within the nonchain kind. Fast food restaurants take much bigger share, compared to the nonchain. Restaurants and fast food are most typical in chain (62% and 16.4%), with bars being the least popular type of establishment within chain restaurants.
- In nonchain restaurants are vast majority - 83% of the market with Pizza places and cafes being the least popular.

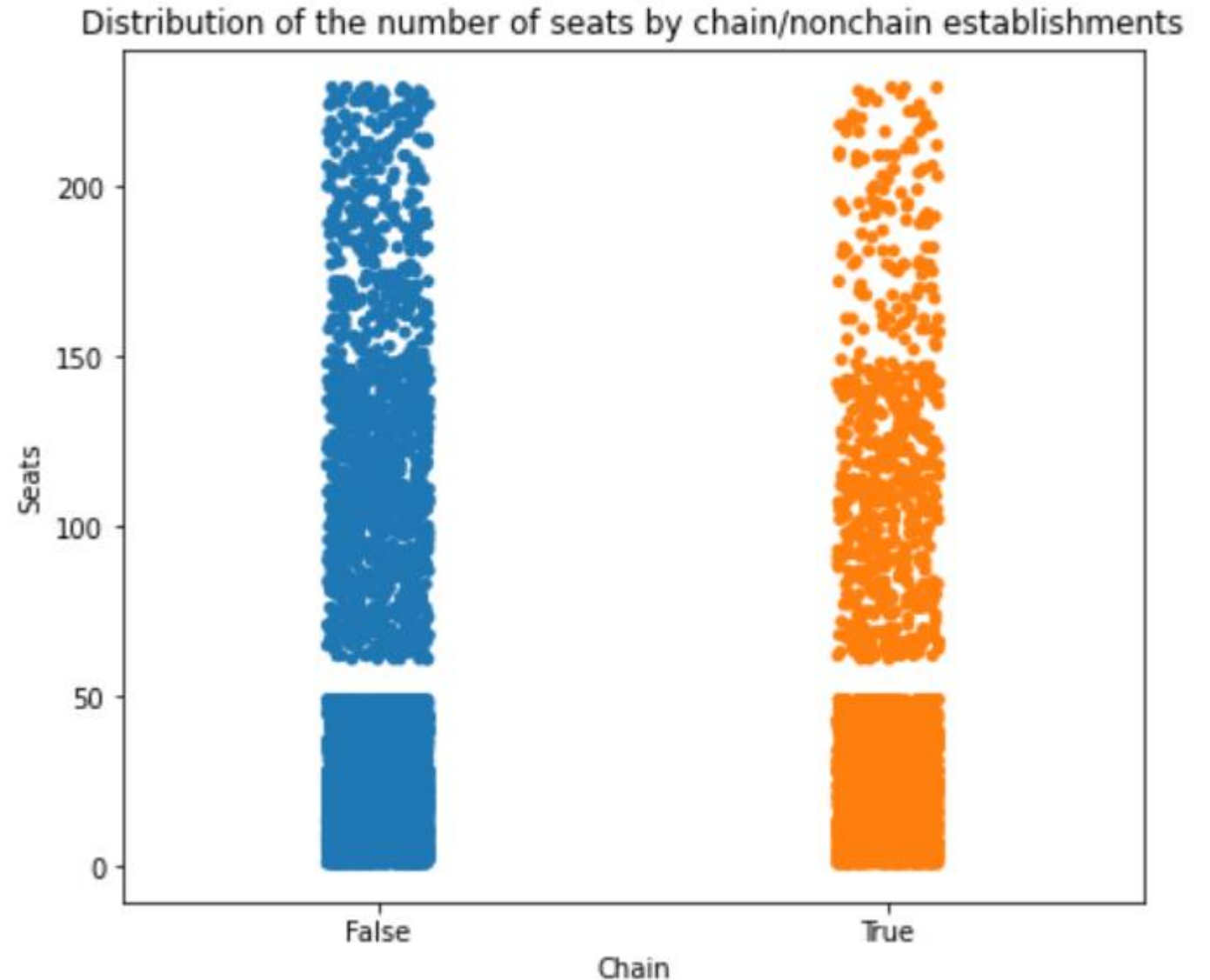




#### 4. What characterizes chains: many establishments with a small number of seats or a few establishments with a lot of seats?

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- We see that in chain establishments there's a high density of places with small number of seats, and as the number of seats goes up, the number of establishments drops.
- A similar picture is for nonchain establishments, however, as the number of seats goes up, the density is still rather high. But maybe this is due to the fact that there're more nonchain establishments rather than chain ones.



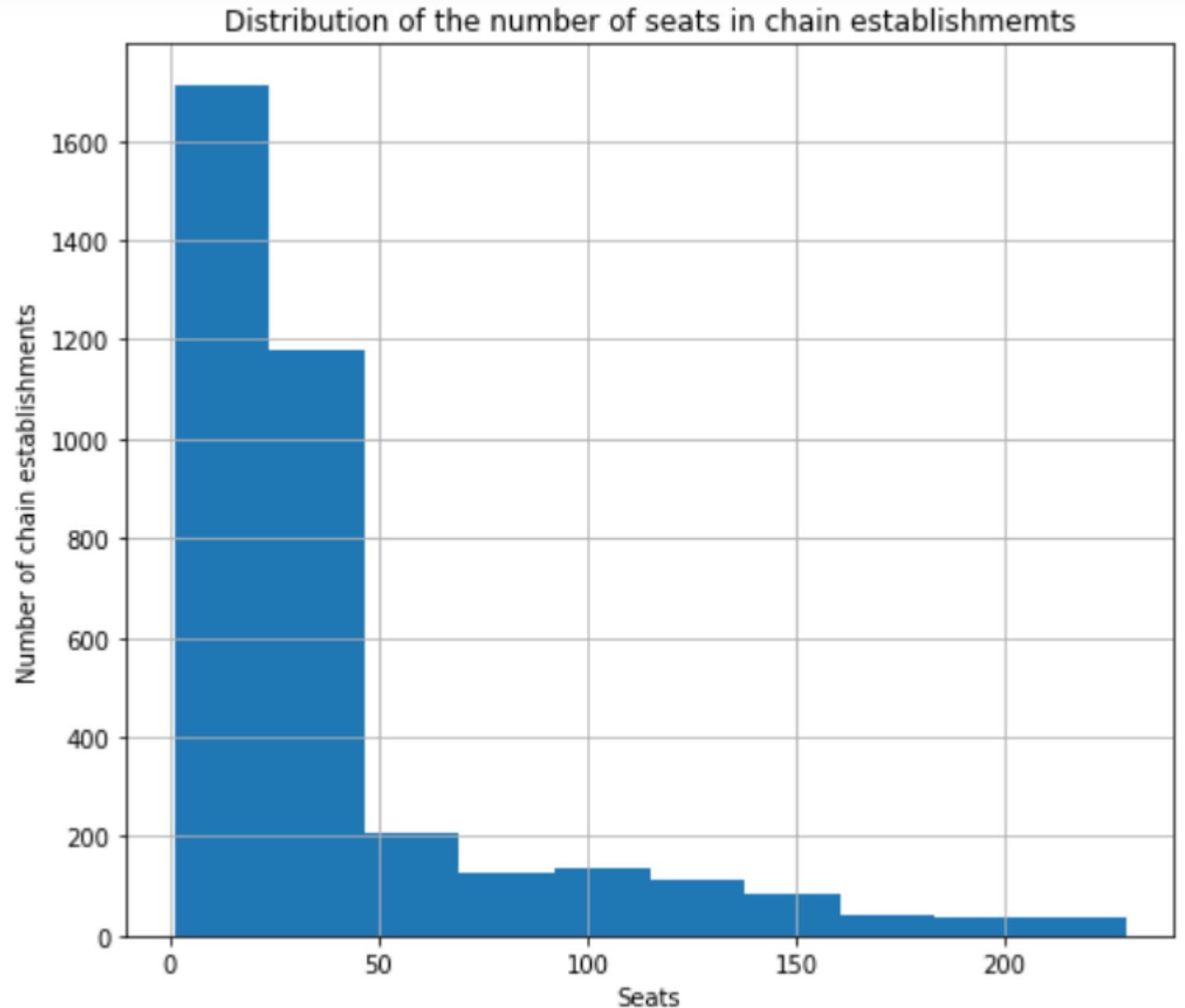
Source: open-source on restaurants in LA

#### 4. What characterizes chains: many establishments with a small number of seats or a few establishments with a lot of seats?

##### Total distribution of seats in chain establishments:

- In general, the chain establishments are characterized by many establishments with a small number of seats. In fact, 75% of the establishments have 44 seats or less and 50% have only 25 seats or less. From the histogram we see that out of 3,676 establishments, about 2,900 have under 50 seats.

Source: open-source on restaurants in LA

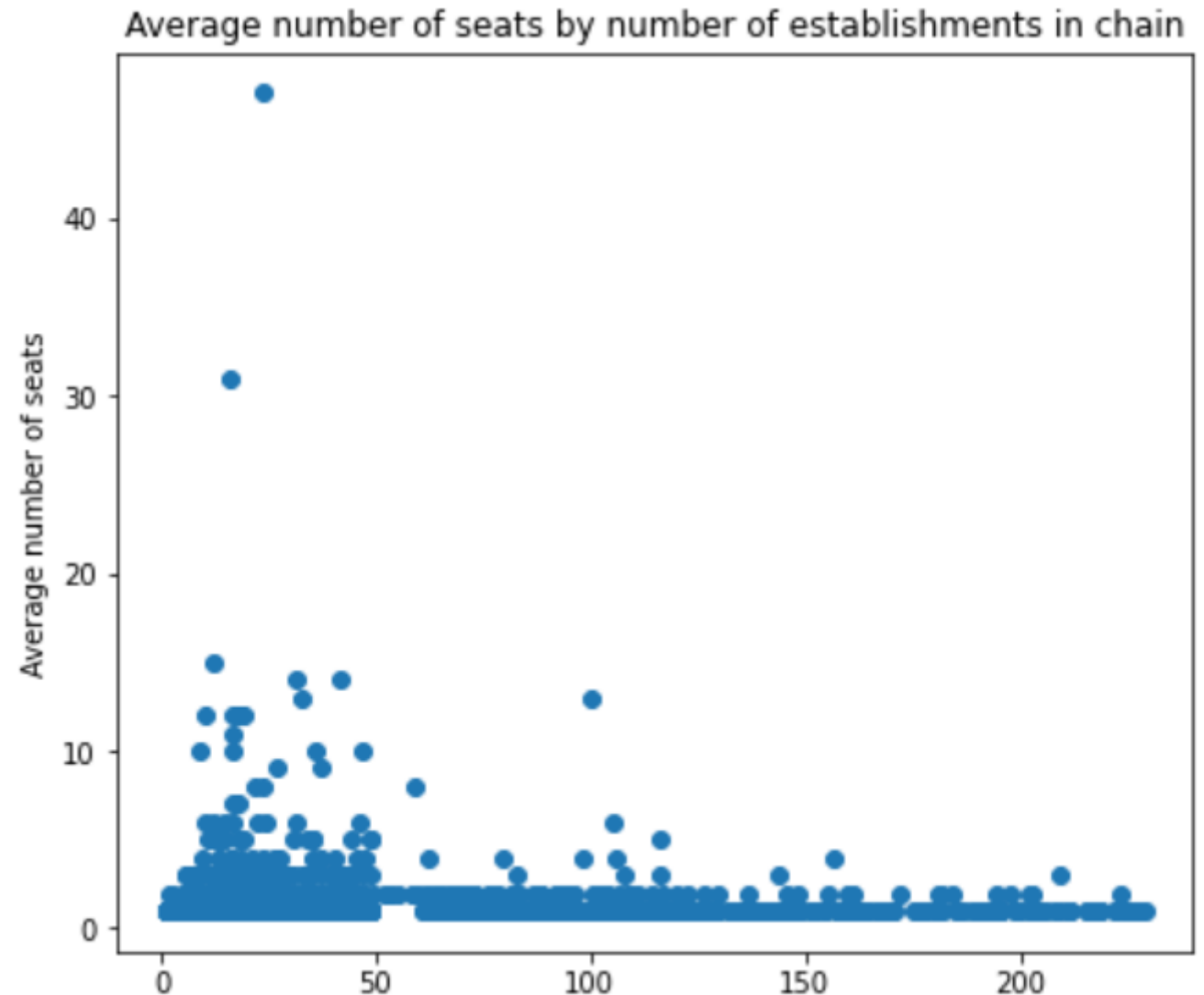


#### 4. What characterizes chains: many establishments with a small number of seats or a few establishments with a lot of seats?

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##### Distribution of seats in chain establishments by chain:

- However, if we take average seating by chain, from the scatter plot above we don't see a clear connection between the average number of seatings and the number of establishments - meaning, there's no clear strong connection between the size of the chain and the number of seatings. Despite that, there're some outliers.

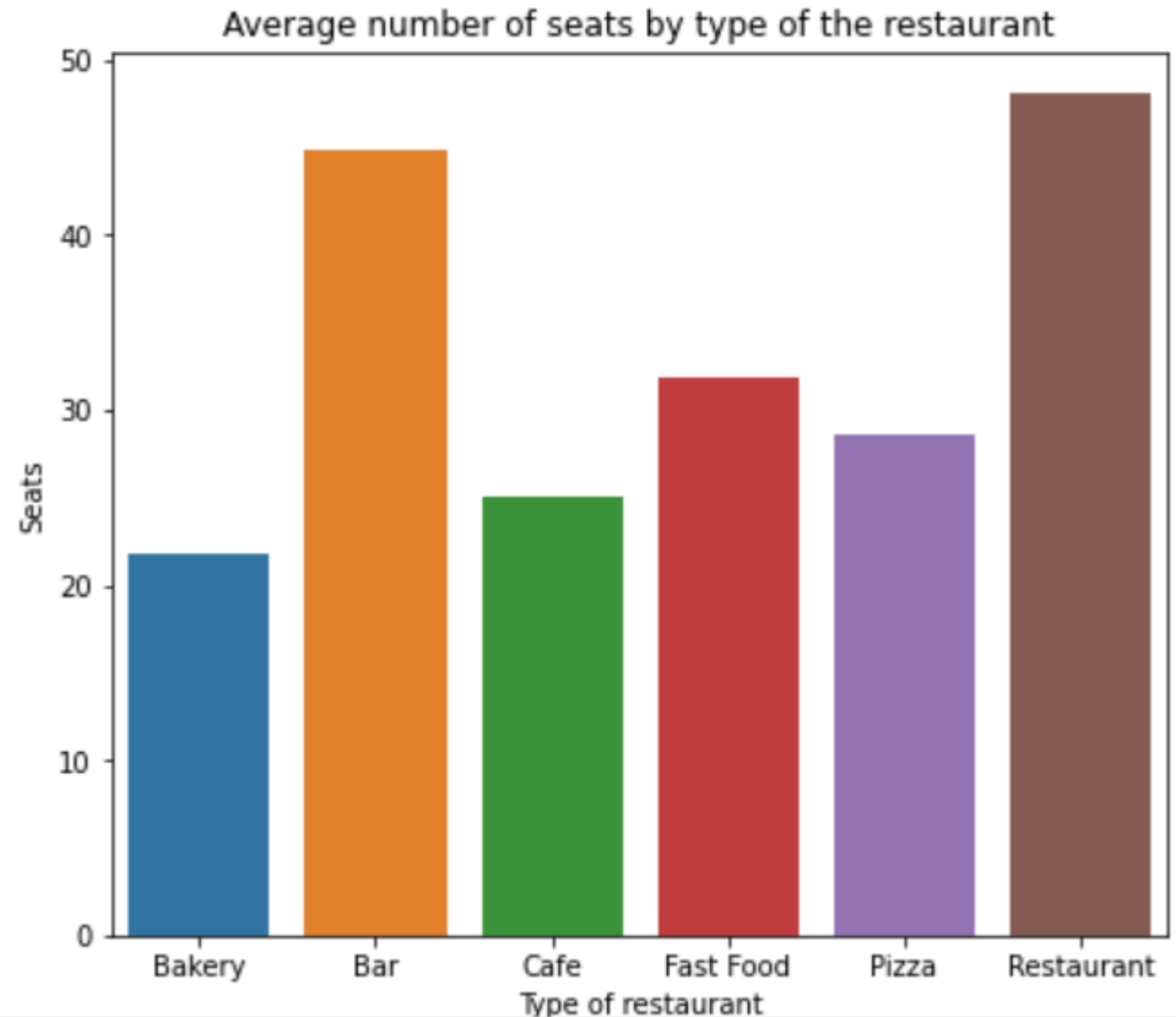


Source: open-source on restaurants in LA

## 5. Average number of seats for each type of restaurant

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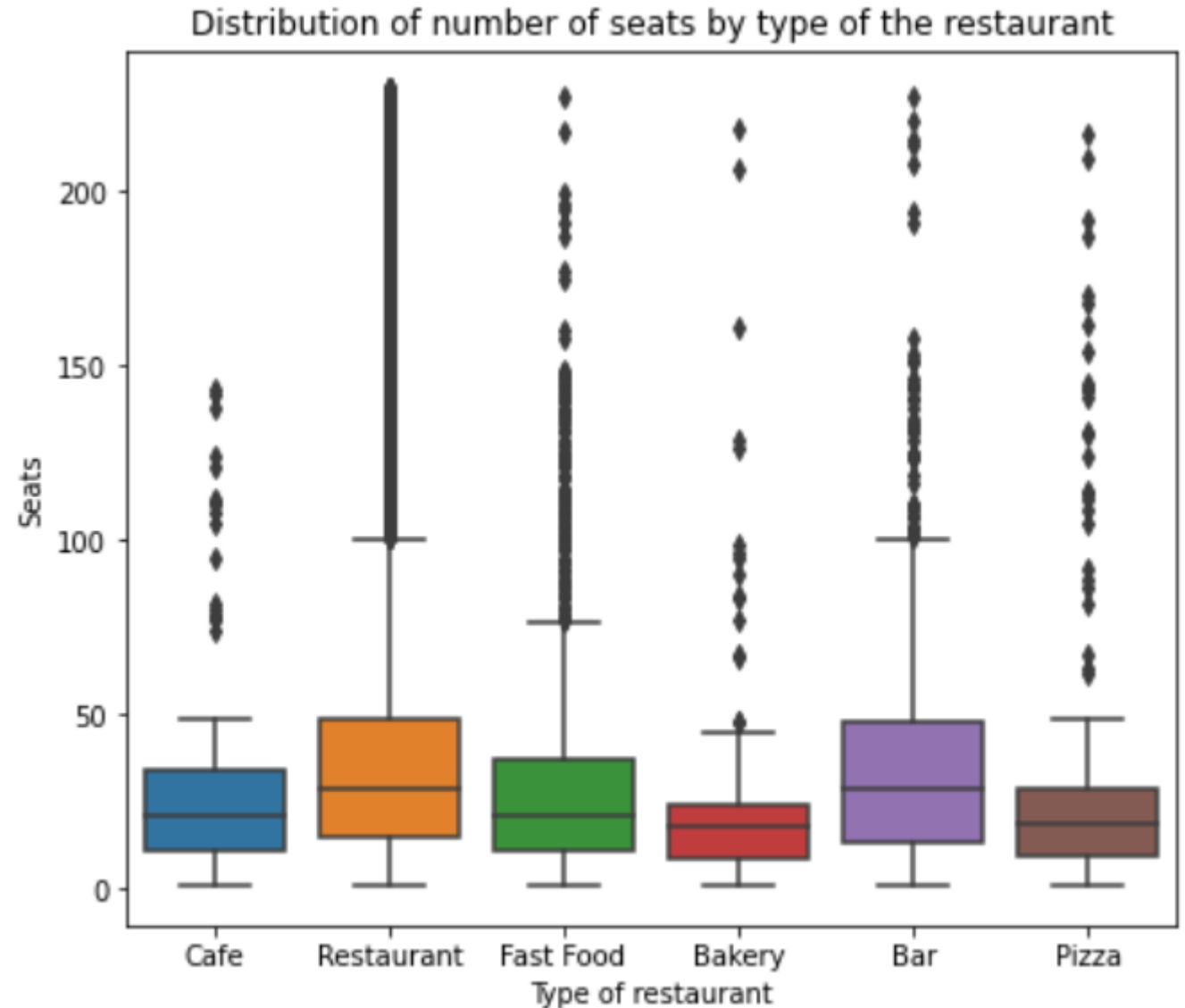
- Restaurants on average have greater number of seats (48), with bars just a little behind (45). Bakeries have the least number of seats (~22), and cafes are just a little above them (25). Fast-food and pizza places are in the middle with 32 and 29 seats, respectively.



Source: open-source on restaurants in LA

## 5. Average number of seats for each type of restaurant

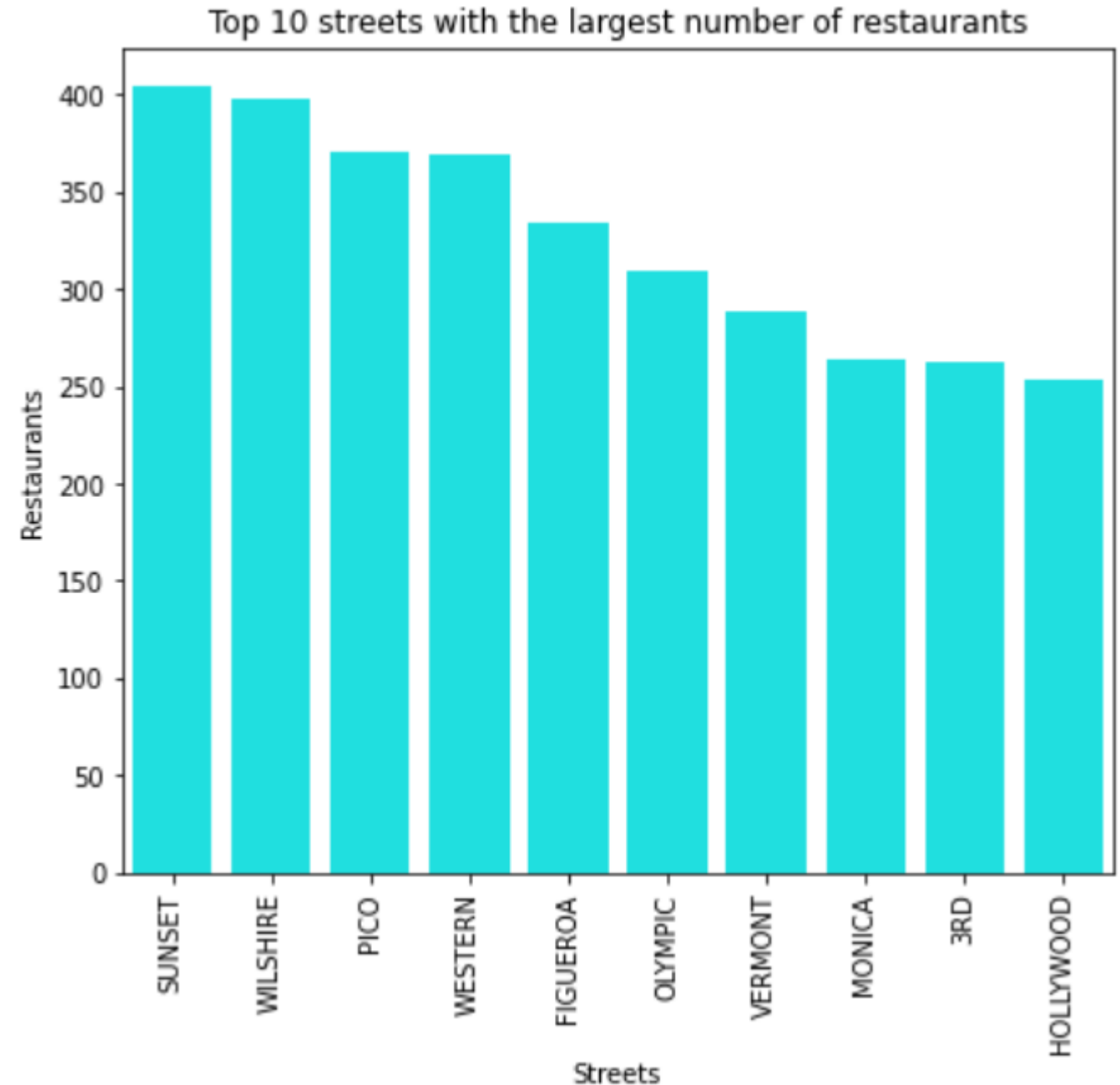
- For restaurants and bars the upper limit is 100 seats. Everything beyond considered to be outliers. For cafes, pizza places, and bakeries, anything beyond 50 seats considered to be outliers. Fast-food establishments seem to be rather big, with outliers above ~85 seats.
- For cafes and bakeries, the outliers are rather rare, but for restaurants and fast-food places, the number of outliers is high.



## 6. Top ten streets by number of restaurants

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- The top 10 streets with the largest number of restaurants are Sunset Blvd (404), Wilshire Blvd (398), Pico Blvd (370), Western Ave (369), Figueroa St (334), Olympic Ave (309), Vermont Ave (288), Santa Monica Blvd (264), 3rd St (262), Hollywood Ave (253). Sunset Blvd has the largest number of restaurants and Hollywood Ave has the smallest amount out of the top 10 streets.



## 7. Streets with only one restaurant

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- There are 186 streets which have only one establishment.

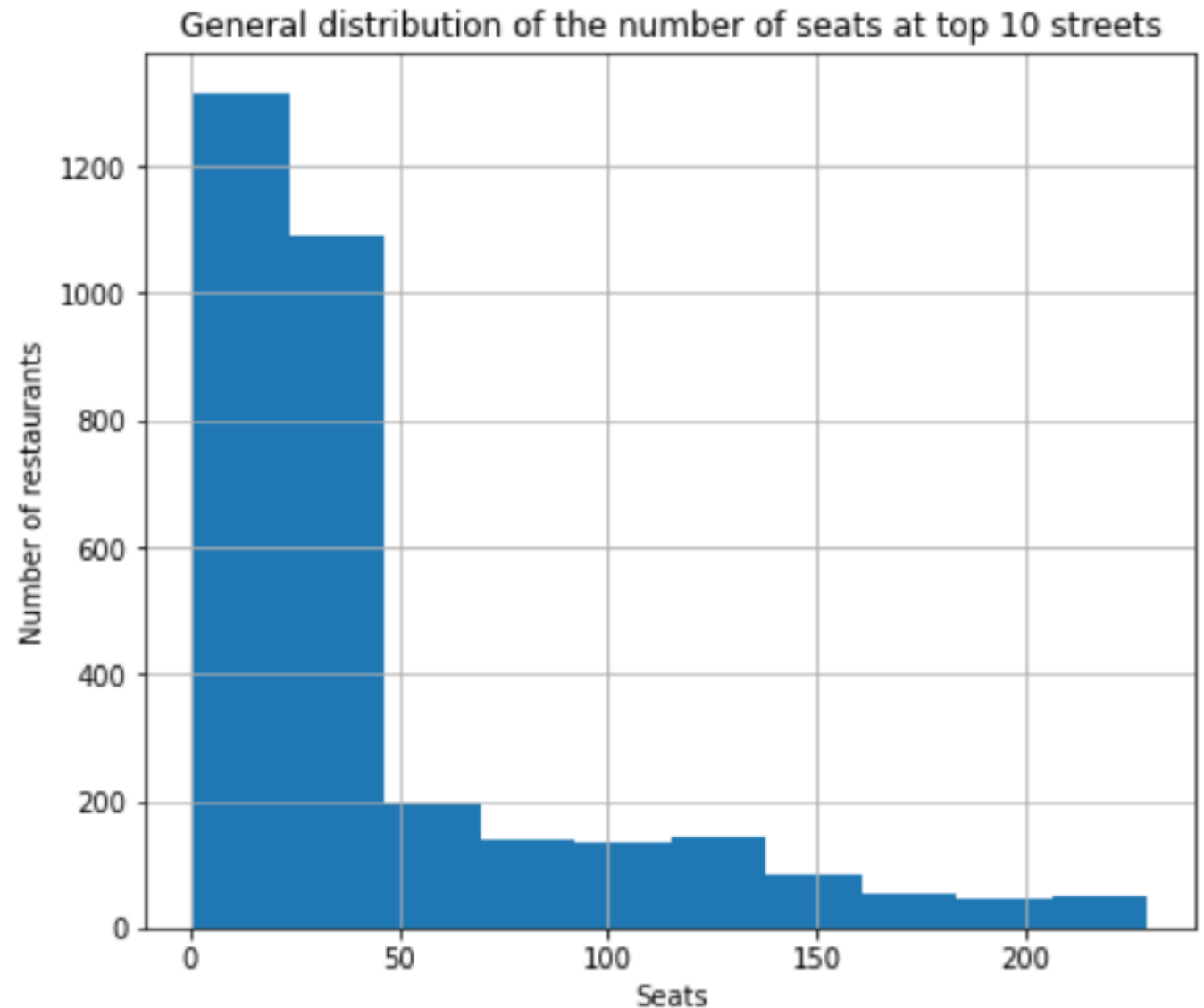


## 8. Distribution of the number of seats for streets with many restaurants

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### General distribution of the number of seats at Top 10 streets:

- In general, based on the data above, the chain establishments are characterized by many establishments with a small number of seats. In fact, 75% of the establishments have 44 seats or less and 50% have only 25 seats or less. From the histogram we see that out of 3,676 establishments, about 2,900 have under 50 seats. However, if we take average seating by chain, from the scatter plot above we don't see a clear connection between the average number of seatings and the number of establishments - meaning, there's no clear strong connection between the size of the chain and the number of seatings. Despite that, there're some outliers.



Source: open-source on restaurants in LA

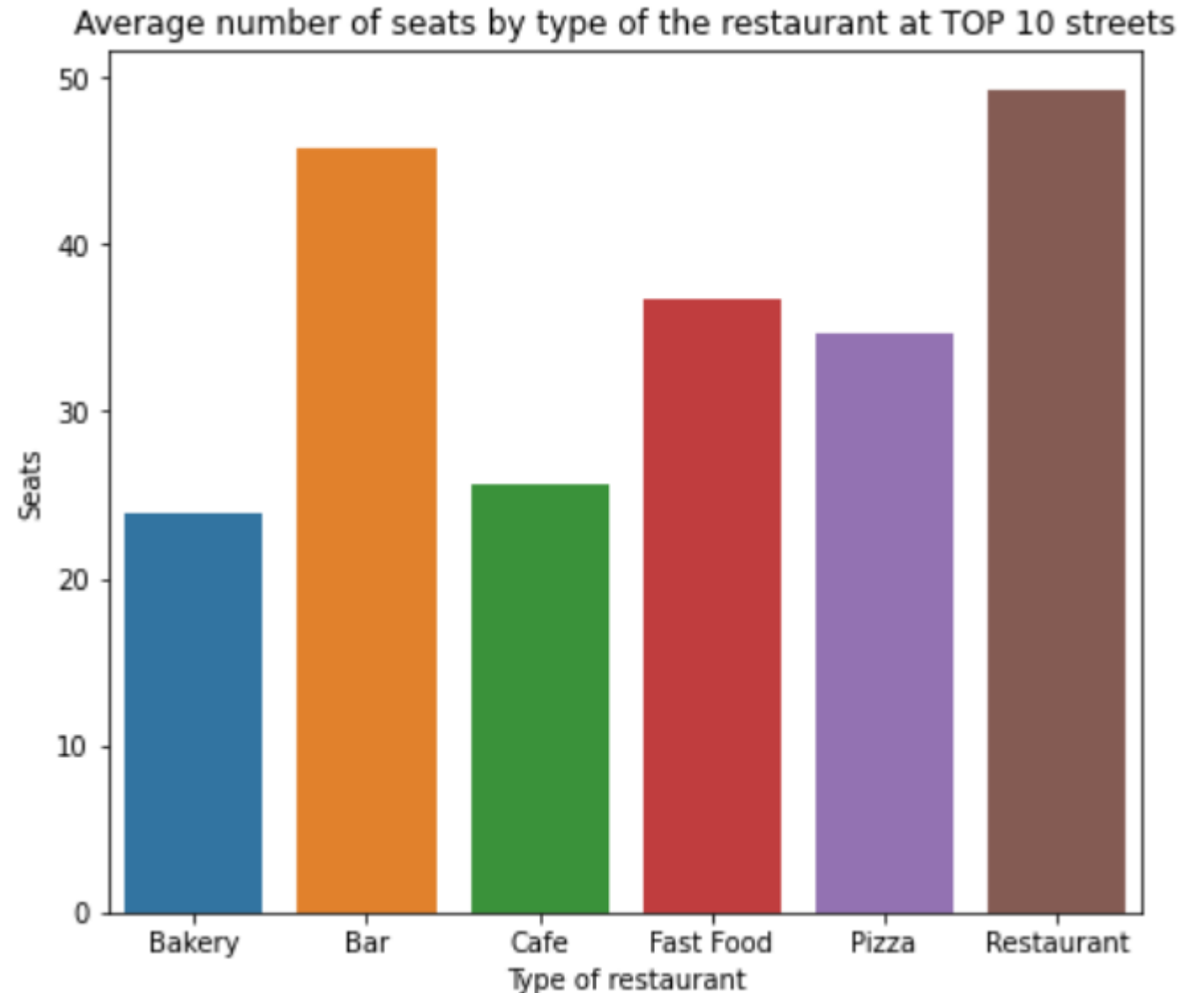


## 8. Distribution of the number of seats for streets with many restaurants

### Average number of seats by type of the restaurant at TOP 10 streets:

- Still, restaurants on average have greater number of seats (49), with bars just a little behind (46). Bakeries have the least number of seats (~24), and cafes are just a little above them (26). Fast-food and pizza places are in the middle (37 and 35).
- Notice: the average number of seats is higher at the top ten streets, comparing to the original data. For Fast-food and Pizza places, the difference is significant (32 vs 37 and 29 vs 35, respectively).

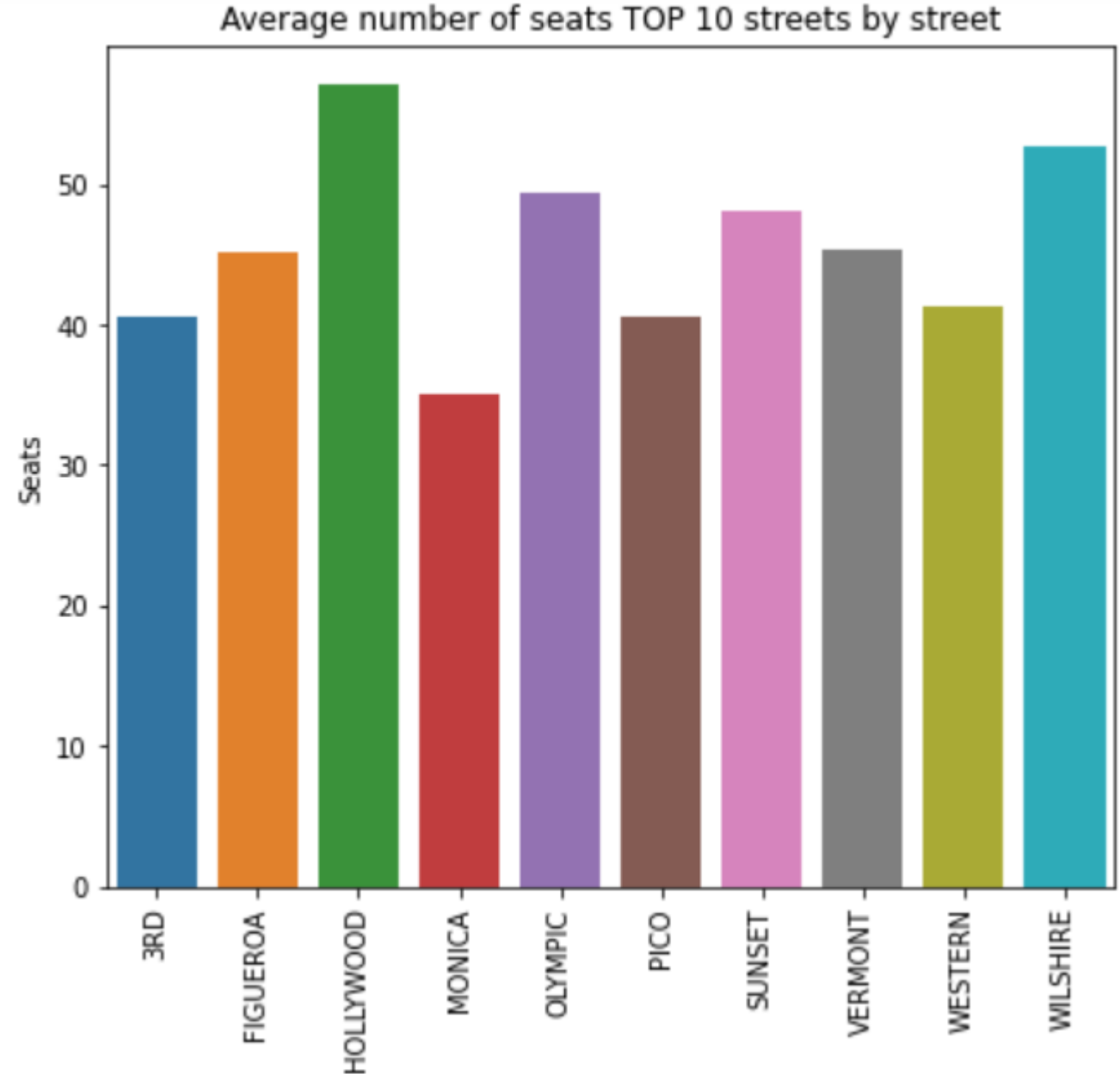
Source: open-source on restaurants in LA



## 8. Distribution of the number of seats for streets with many restaurants

### Average number of seats at TOP 10 streets by street:

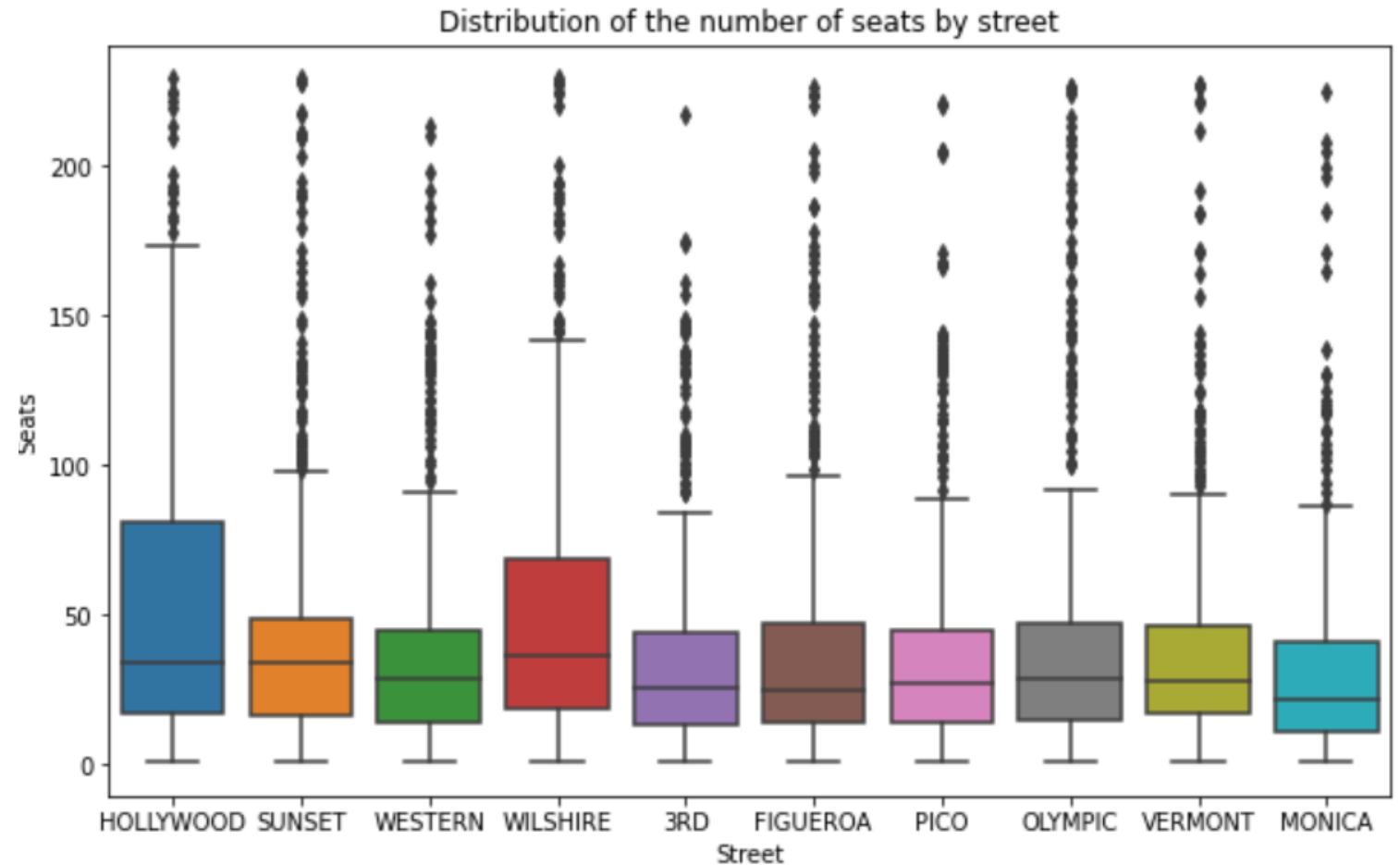
- The largest average number of seats at top 10 streets is at Hollywood Ave (57), Wilshire Blvd (53), Olympic Ave (49), Sunset Blvd (48), Figueroa St and Vermont Ave (45 at each), Pico Blvd, 3rd and Western Ave with 40-41 seats on average, and Santa Monica Blvd has the least seats on average (35).



## 8. Distribution of the number of seats for streets with many restaurants

Distribution of establishments by number of seats at TOP 10 streets by street:

- At all streets, there's concentration of relatively restaurants with under 50 seats. From the visualization above it's visible that Hollywood Ave and Wilshire Blvd have dense concentration of larger restaurants with above 50 seats (150-175).



# Recommendations – part 1:

From the data analysis it looks like the most financially justified option is to start by a small non-chain cafe somewhere just off one of the top 10 streets. There's also an option of opening a small chain restaurant, a fast-food restaurant, with about 29-32 seats in a location not far from one of the top 10 most popular streets. It seems that the streets with many restaurants and eating establishments already have quite a competition.

## Recommendations – part 2:

In addition, the restaurant market is overloaded with restaurant type establishments, and the competition is rather high. However, small and intimate places like cafes, take rather small market share and don't have a lot of competition.

Within the chain places the fast-food establishments are at the 2nd place after restaurants, and their share is rather low as well. Such a novelty as a robot-run cafe will attract a large crowd in a market which is scarce in the small cafe in the first place. And being off the noisy large streets, but just around the corner from them, looks like a winning location.

Thank you!