Enhancing User Ratings of Restaurant

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2020CD21011

PDBACZG539

Exploratory Data Analysis

- Data has around 22 different variables.
- Out of these some variables are not taken into consideration during visualization.
  1. url, fax– many values of this field are empty.
  2. Country – Data available is only for 1 country (Mexico)
- Here the dependent variable is '**User Rating'**
- Our goal is to **increase the average rating** of a restaurant. This is achieved by studying and analyzing different variables that may lead to increase in ratings.

Initial Assumptions

- Before visualizing any data, we consider the following assumptions,

The rating of a restaurant is dependent on all the following parameters,

1.   Price
2.   Ambience
3.   Alcohol
4.   Smoking
5.   Dress Code
6.   Accessibility
7.   City
8.   State
9.   Number of user ratings
10.   Zipcode
11.   Franchise
12.   Other services

Price, Alcohol, Ambience and Smoking area effects on Average Ratings

Price, Alcohol, Ambience and Smoking area effects on Average Ratings
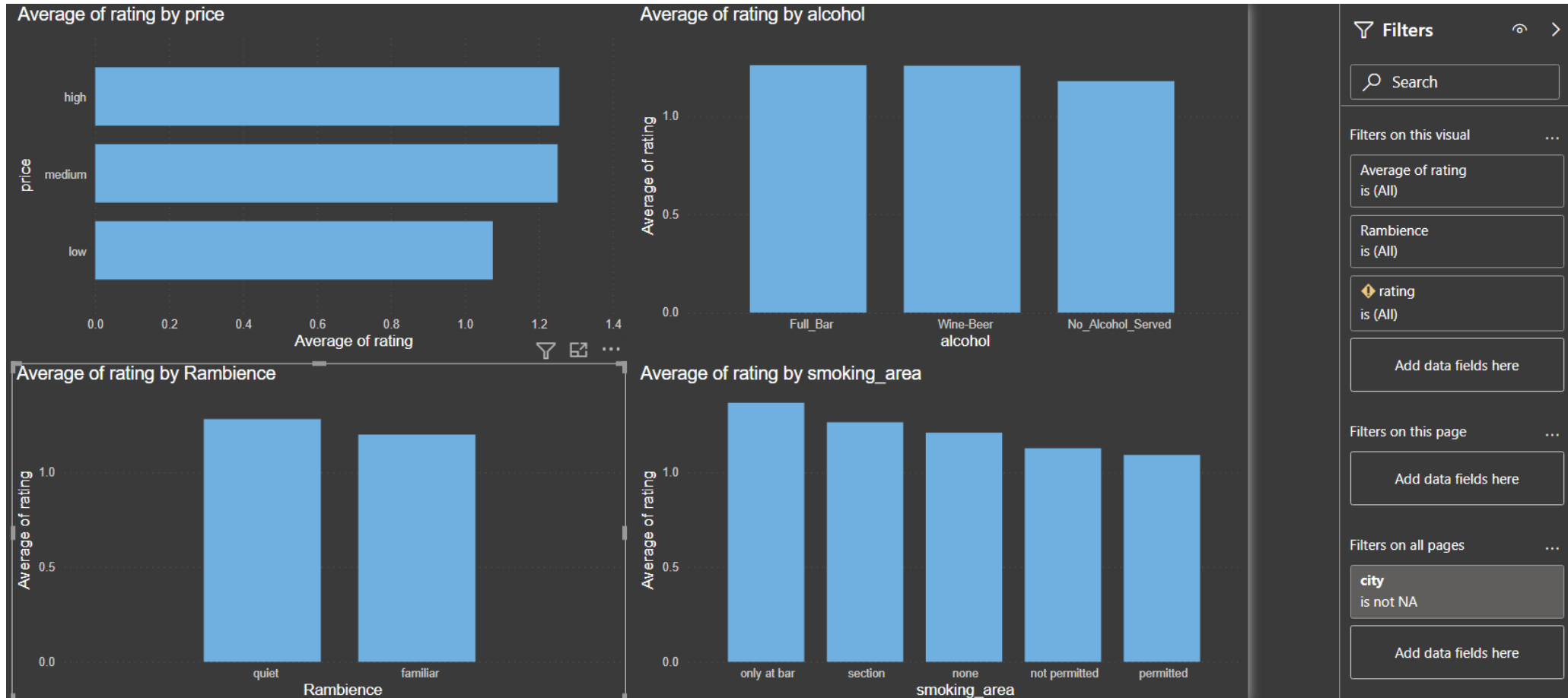
Observations

1. Price
   - Restaurants with medium price have the highest number of '2' rating, it also has highest number of '0' rating
   - Average rating is low, for restaurants with low price
2. Alcohol
   - Restaurants providing alcohol have higher average ratings.
   - Restaurants not providing alcohol have high number of users and high number of '2' rating
3. Ambience
   - Restaurants with Quiet ambience have average higher rating.
   - Restaurants with familiar ambience have higher number of users and higher number of '2' rating
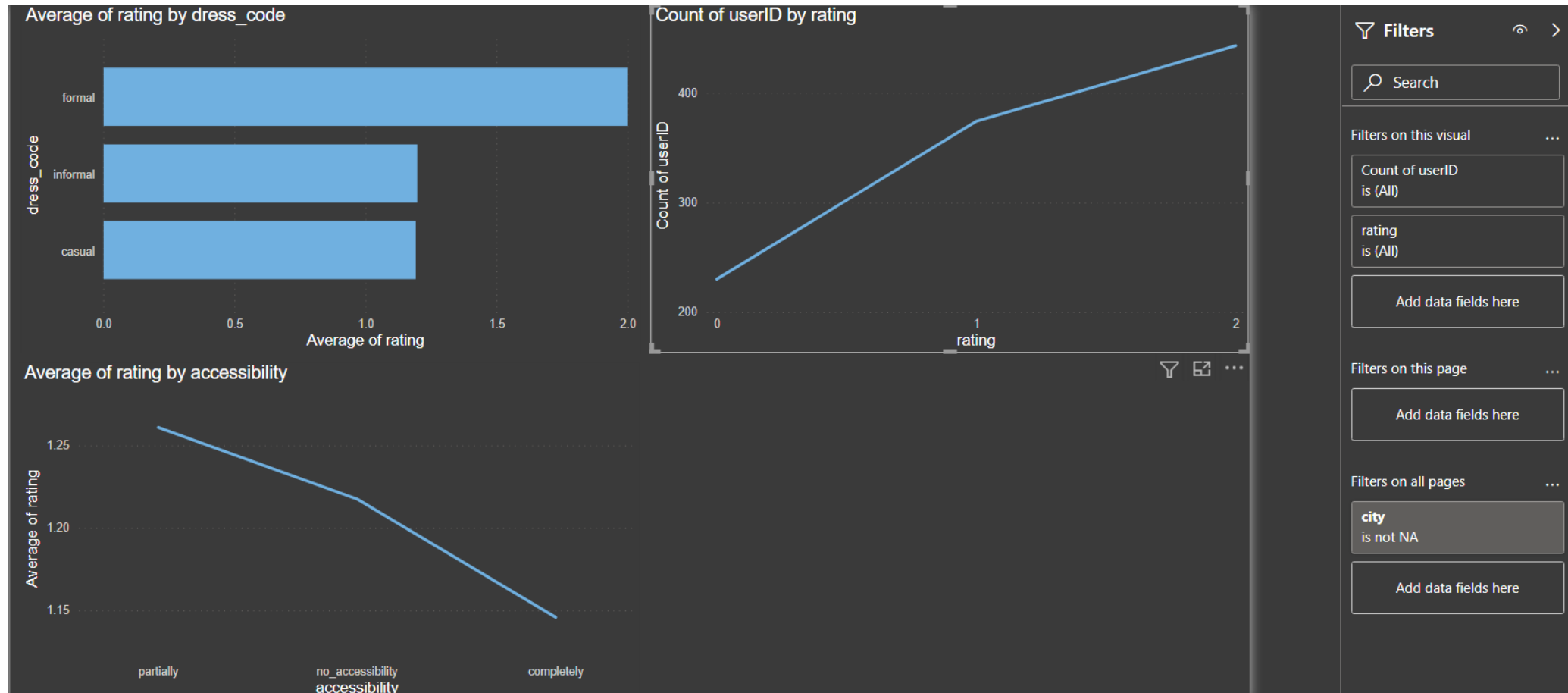4. Smoking Area
   - There is no clear relation between allowing smoking and not allowing smoking at a restaurant and its effects on rating.

Dress code, Number of user and accessibility.
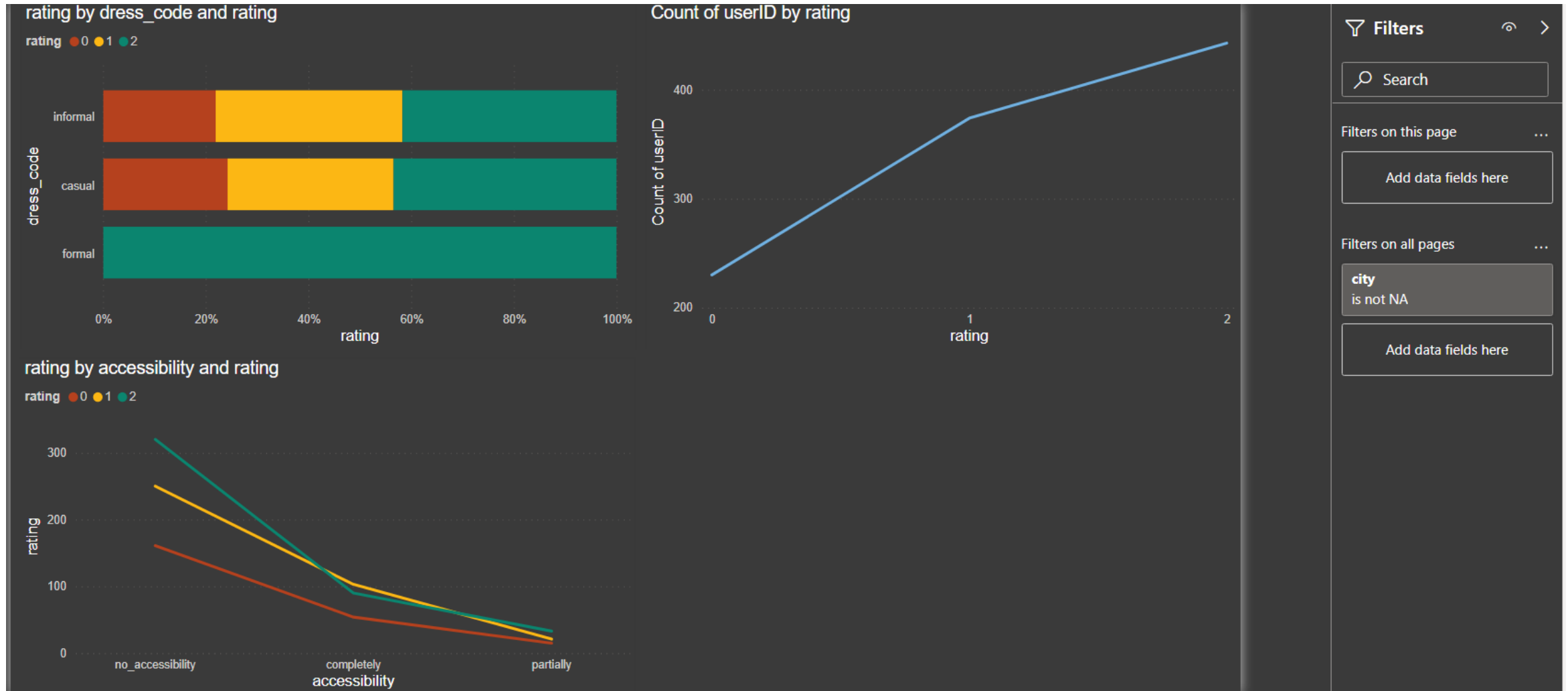
Dress code, Number of user and accessibility.

Observations

1. Dress Code
   - It is observed that the number of users and average rating is significantly higher for places where the dress code is formal.
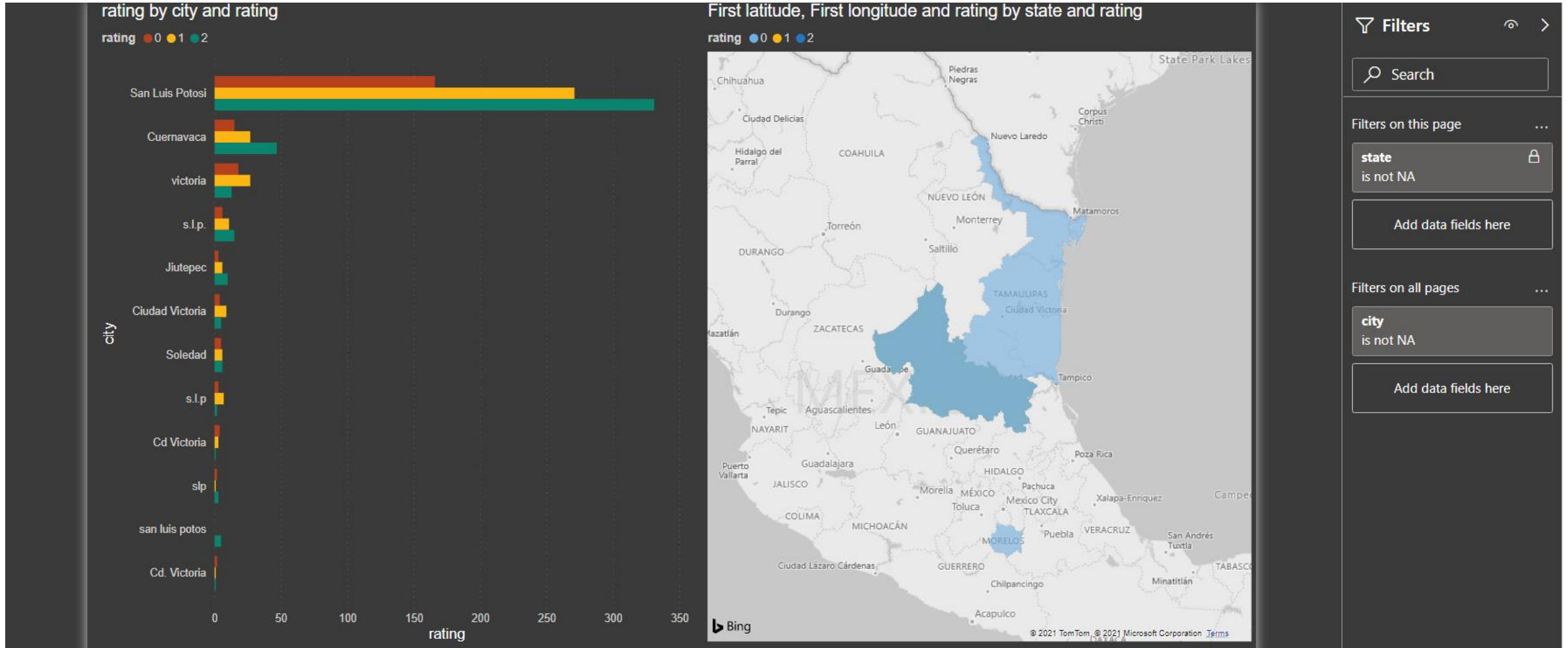
2. Number of Users
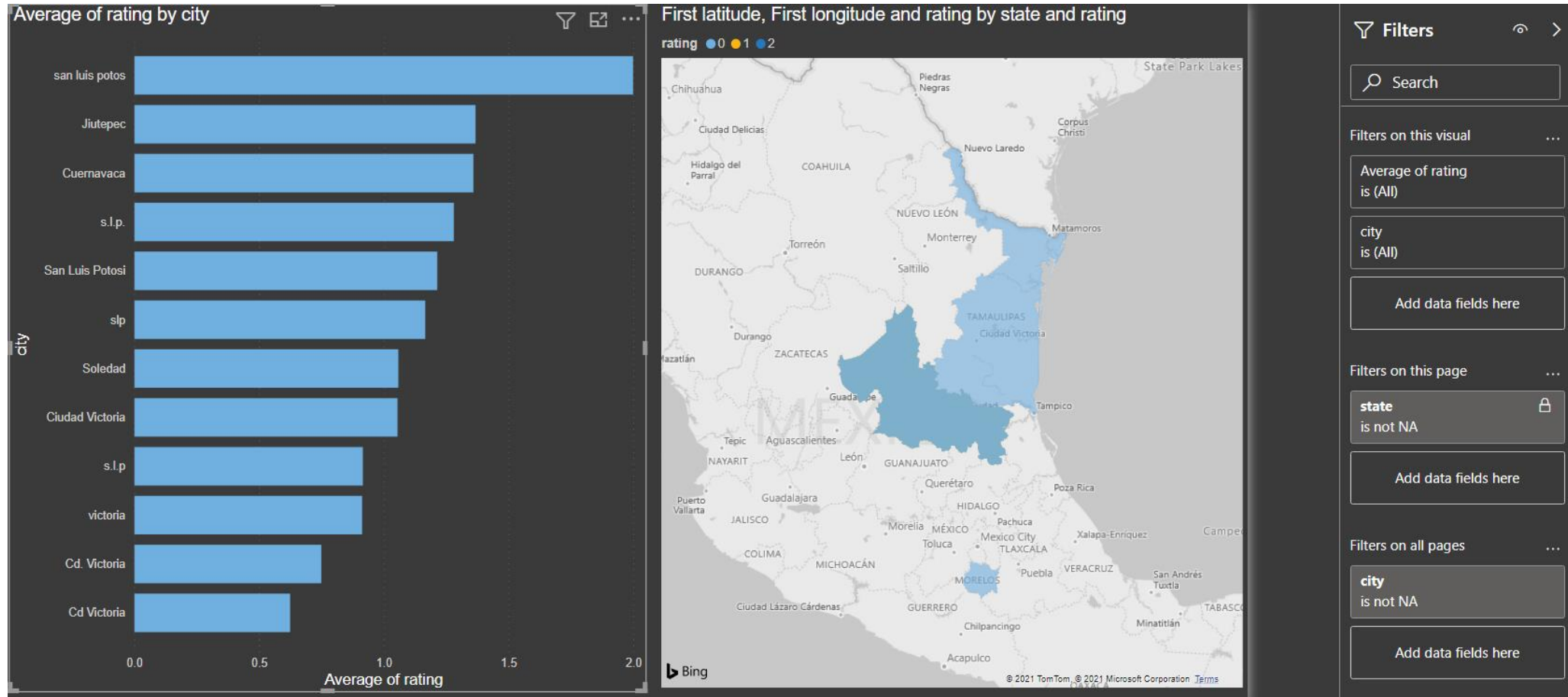   - The number of users that have given a higher rating is high

3. Accessibility
   - There is no such clear relationship that can be read from the graph

City and State

City and State
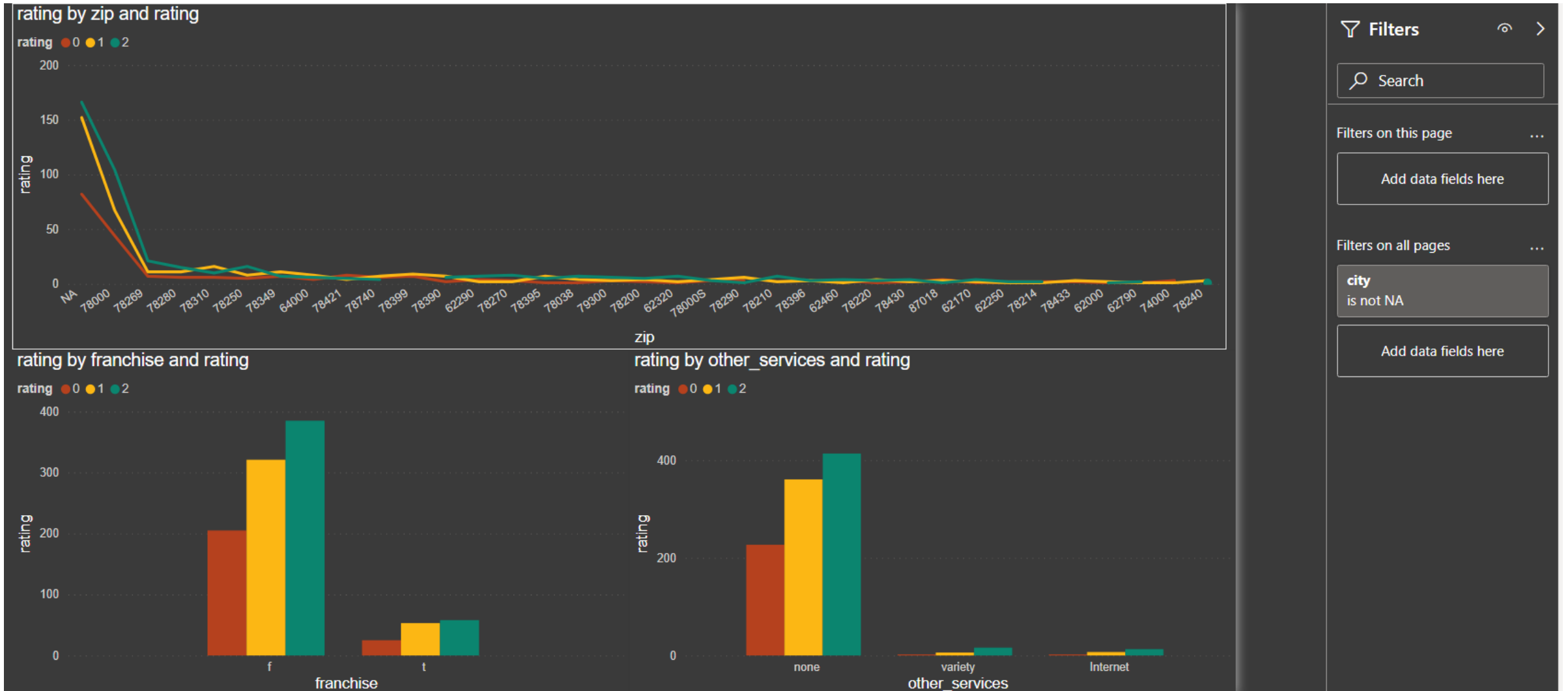
Observations

1. City
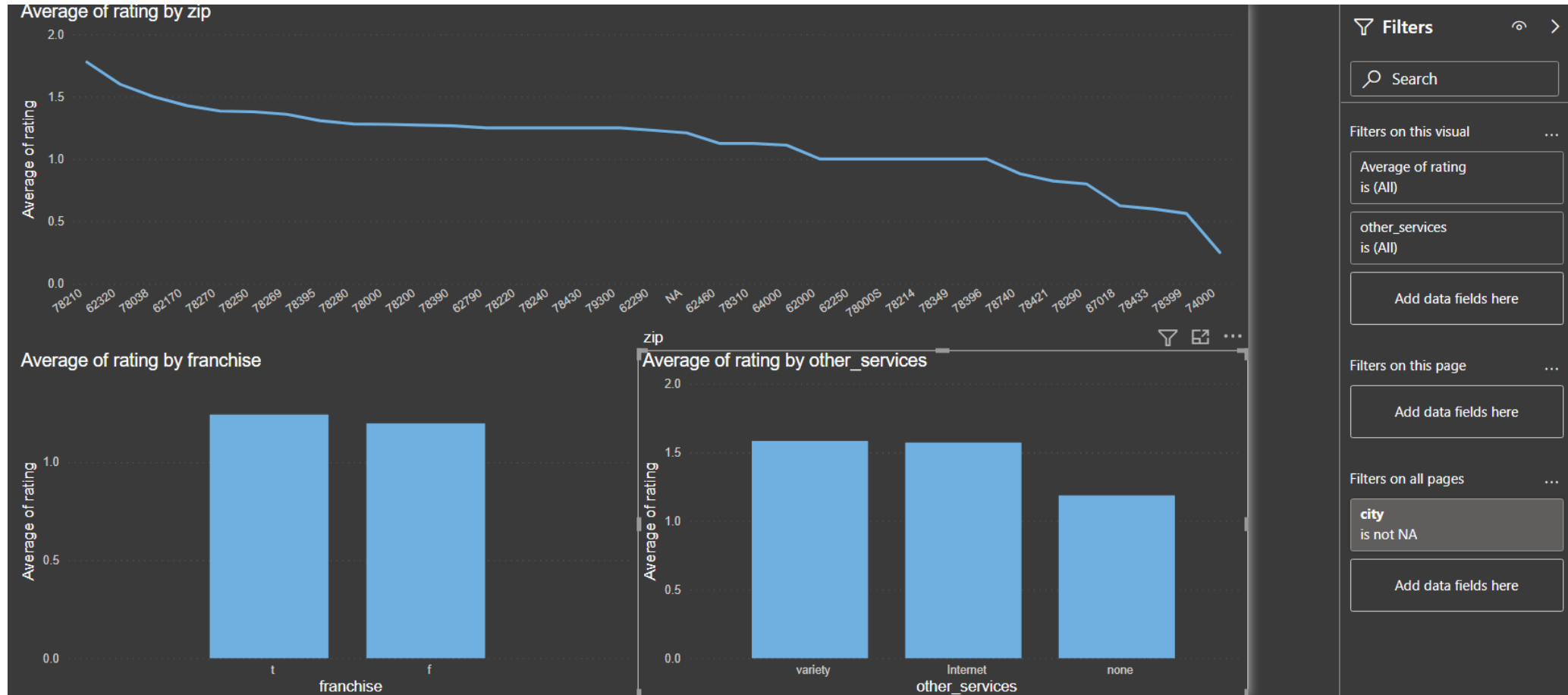   - The highest average rating and higher number of users with '2' rating are present in san louis potos.

2. State
   - The highest average rating is present in SLR state.

Zip, Franchise and Other services

Zip, Franchise and Other services

Observation

1. Zip
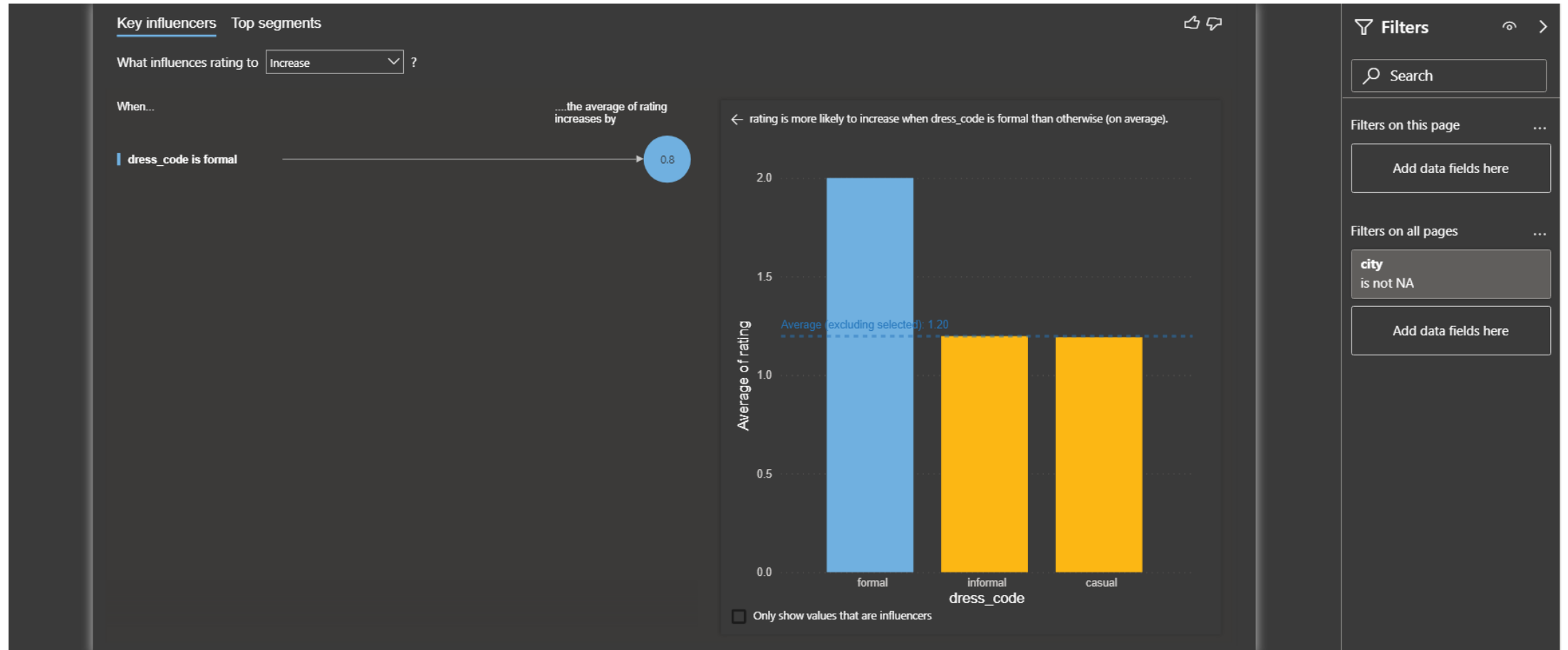   - There is not clear relationship between zip and user rating.

2. Franchise
   - There is not clear relationship between franchise and user ratings

3. Other services
   - The average rating is low for restaurants where no other services are provided

Key Influencers

Observation

- From the above visualization, we can say that, If a restaurant has a formal dress code, the average rating of that restaurant can go up by 0.8

Insights and Suggestions to increase user ratings

- One of the most important suggestion is to change the dress code at a restaurant. This change will not require any additional investment by the restaurant and hence is a plausible alternative.

- The restaurant can provide some basic 'other services' in case they do not provide any 'other services' currently.

- Restaurants which at present do not provide alcohol and have a lower price and work on providing alcohol and improving the price and quality of food offered, which can lead to an increase in user ratings.

- Restaurants can also try and provide a 'quiet' ambience to increase average user rating