

Business Problem

A tourism company wants to build a museum guide package for their customers.

 Rather than a tour they want to provide all information so their customers can view the spots at their own pace and luxury.

Want to find city with the highest density of museums. Why?

Tourists may not have cars or even a license.
 The denser a city is with venues, tourists will have closer and more options.

Research Question

- Which US City has the highest density of museums:
 - New York, NY
 - o Chicago, IL
 - ∘ San Francisco, CA
 - \circ Los Angeles, CA
 - o Boston, MA

Data and Methodology



Using the FourSquare API, data on museums in these five cities (New York, Chicago, San Francisco, Los Angeles, and Boston) will be collected.



Number of museums will be collected, and the density will be appraised visually.



The average of the distance of the museums to the mean coordinates will be taken for each city.

RESULTS

Total Number of Museums in each City

∘New York: **121**

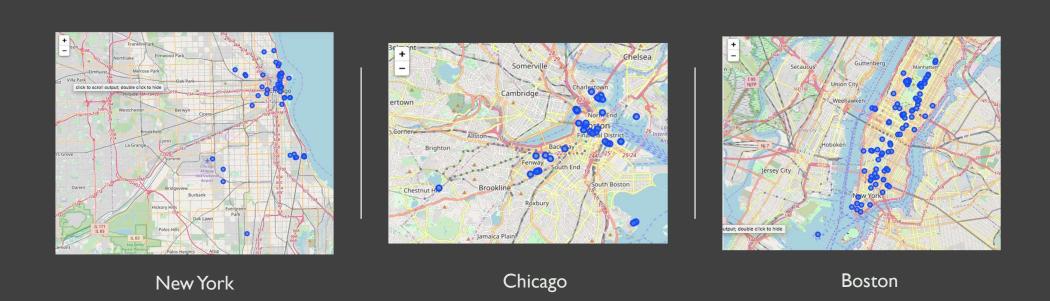
∘ Chicago: **62**

∘San Francisco: **54**

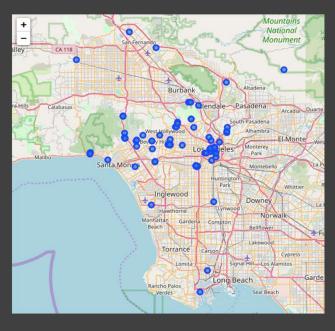
∘ Los Angeles: **94**

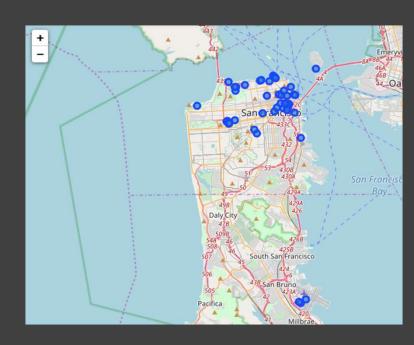
∘ Boston: **35**

- It can be seen that New York and Los Angeles have the highest number of museums among the five cities.
- However, the highest number doesn't always translate to the highest density.



VISUALIZATIONS





San Francisco

Los Angeles

VISUALIZATIONS

Mean
Distance
from Mean
coordinates
of each
City

New York: **0.027**

Chicago: **0.057**

San Francisco: 0.039

Los Angeles: 0.099

Boston: **0.022**

Discussion

- While we can see that the actual number of museums is high in Los Angeles, the distance of the museums poses a problem. We also must rationally think about how much the number of museums matters. In a given amount of time, a person can only visit so many museums and after that number, it doesn't matter.
- So since the number isn't as important, let's look at the mean distances from mean coordinates. We can see that New York has the highest number of museums and a low mean distance so it is the obvious first choice. But what about Los Angeles? While the number of museums is high, the mean distance is also high, making it difficult for tourists to access those museums. A city with a low mean distance is Boston but Boston also has the least amount of museums. But we decided earlier that after a number of museums it does not matter how many museums are there. While the exact threshold for what that number is is out of the scope of this project, we can reasonably conclude that Boston is still a great choice since there are 35 museums to see and they can all be accessed easily.

Conclusion





New York is the obvious first choice for the best museum city in the US

A reasonable second place is Boston