USA RESTAURANT MANIA

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OUTLINE

- Problem Statement

- Data Acquisition

- Results and Discussion

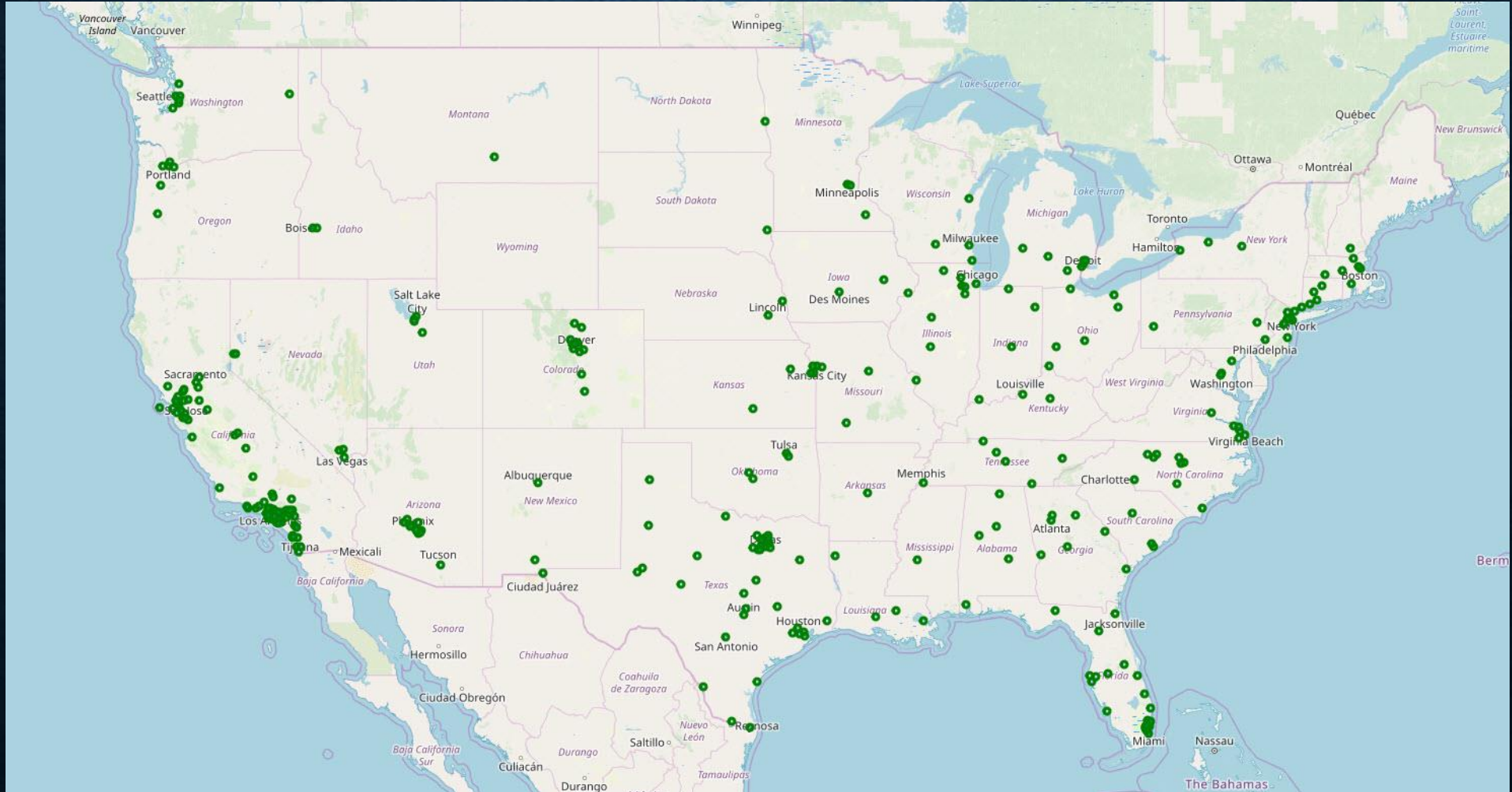- Recommendation

PROBLEM STATEMENT

- A restaurant investment firm is wanting to open a new chain of restaurants somewhere within the United States. Knowledge on strategic locations and what cuisine would be invaluable for making the right decision.

DATA ACQUISITION

- The top US cities based upon population size was scraped from the Wikipedia URL listed below:
    - https://en.wikipedia.org/wiki/List_of_United_States_cities_by_population

- An interactive map was produced displaying the distribution of 300+ cities spread across the United States.

- The green dots on the following slide represent the cities
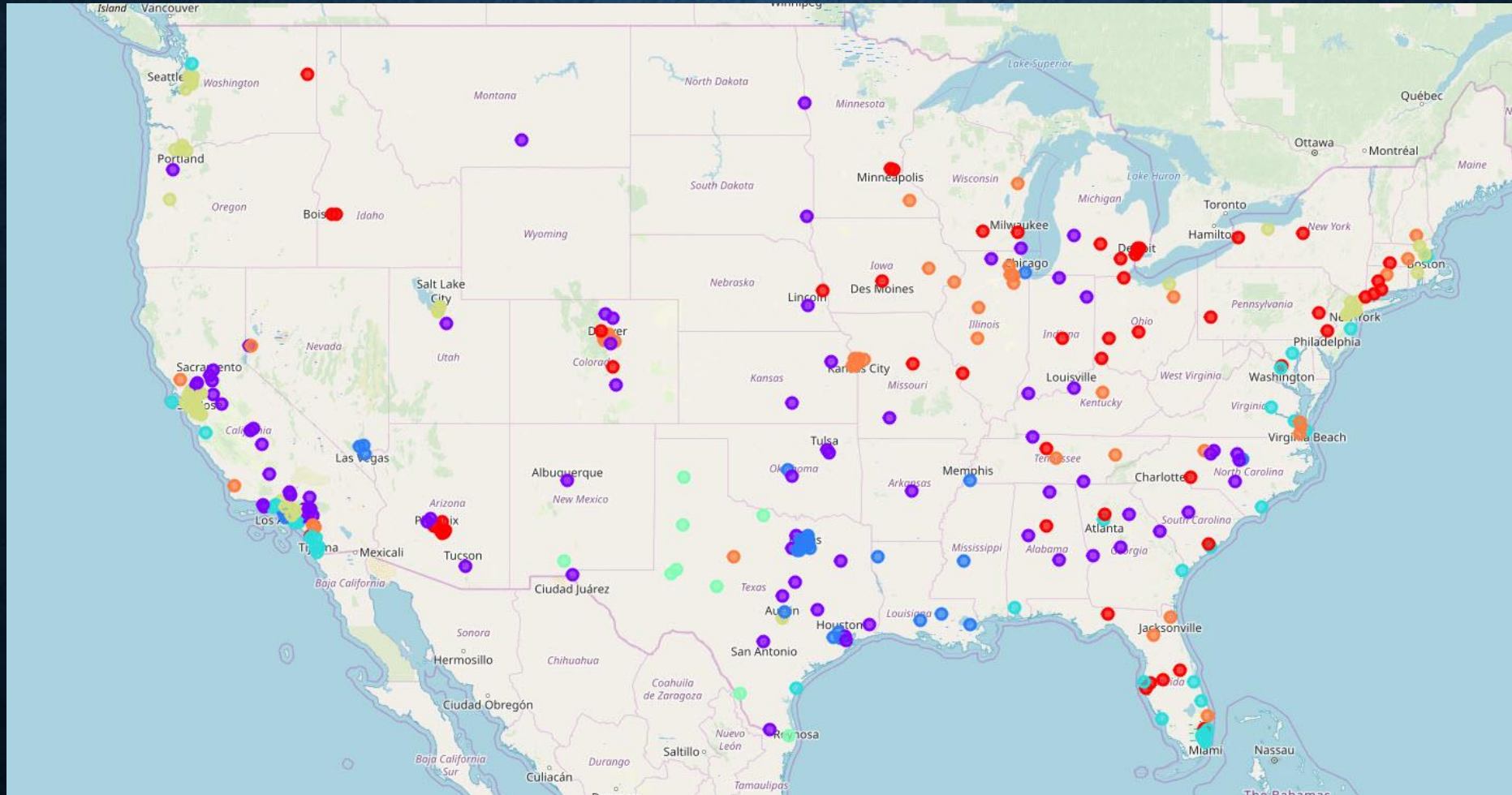
MAP OF THE UNITED STATES

DATA ACQUISITION (CON'T)

- For each City, 100 restaurants and their respected types were acquired by leveraging the Foursquare API

- K-Means Clustering analysis was then performed in order to pair like cities together based upon the restaurant type frequencies for each city.

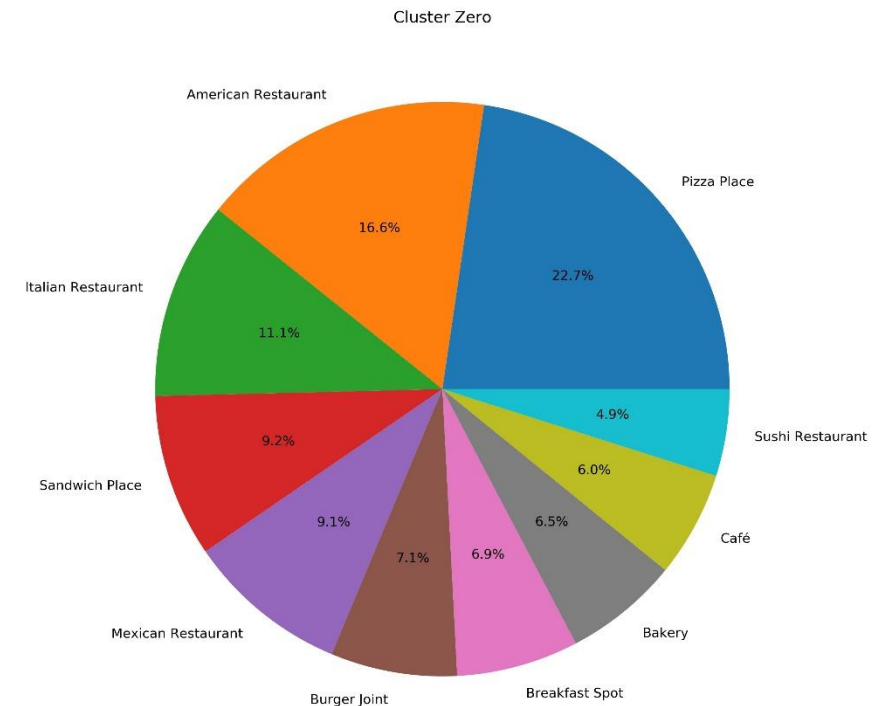- The following Map shows the city memberships to a given cluster based upon colors

US MAP OF CITY CLUSTERS
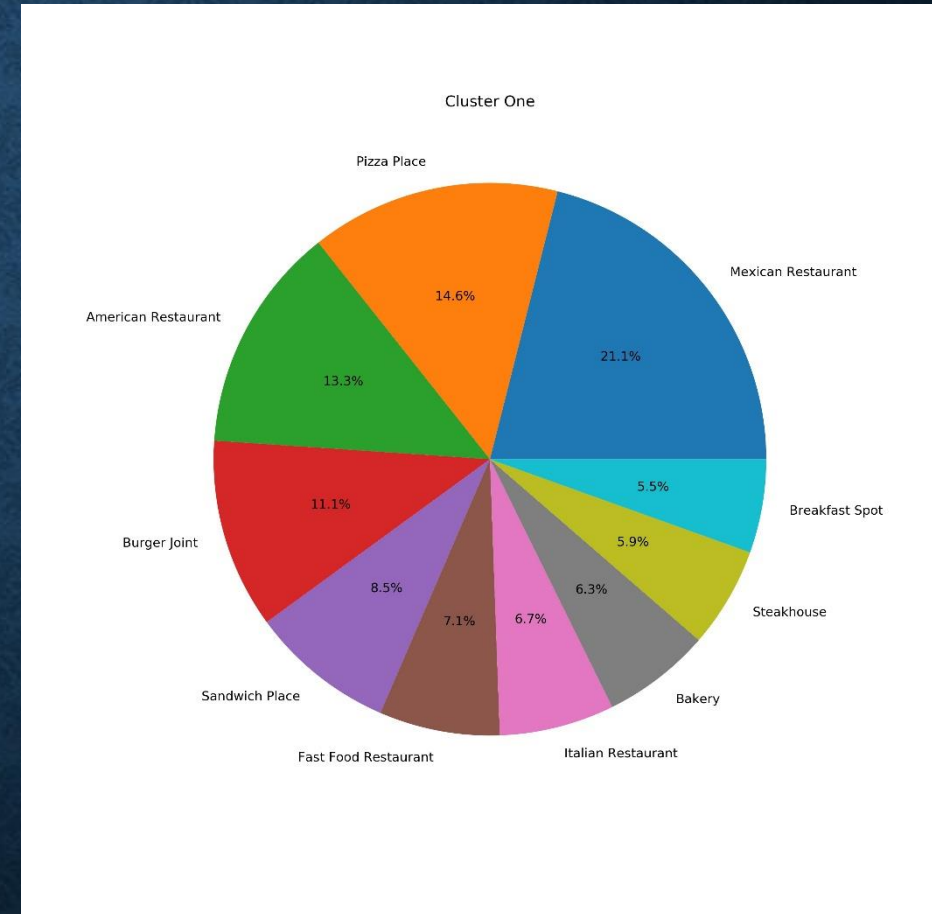
RESULTS AND DISCUSSION

- Cluster Zero Pie Chart:
  - 33% Italian or Pizza Types
  - 17% Burger or Sandwich Types
  - 20% Breakfast, Café, or Bakery Types
  - 5% Sushi
- Suggestion:
  - Sushi Restaurant
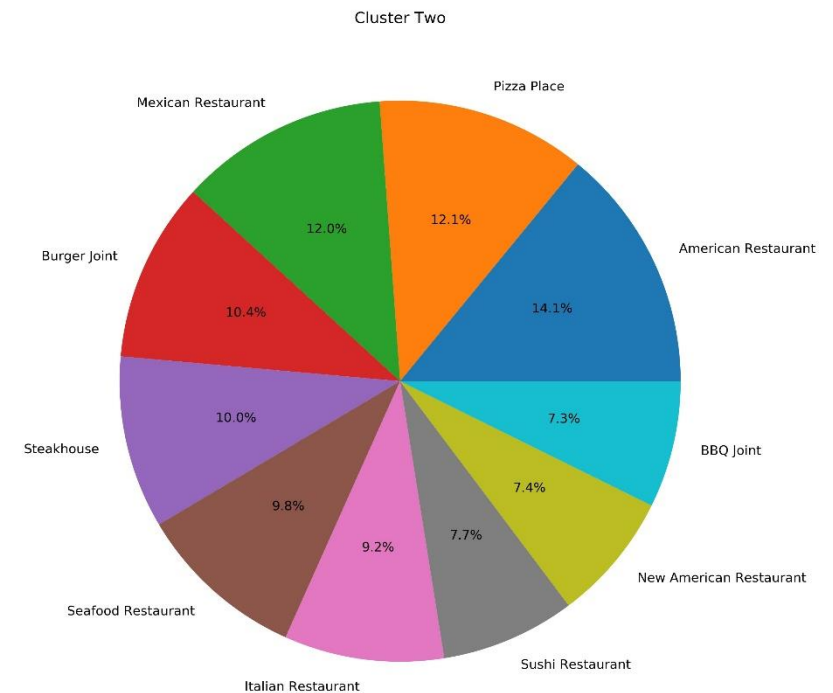 - Michigan, Arizona or Florida

RESULTS AND DISCUSSION

- Cluster One Pie Chart:
  - 22% Italian or Pizza Types
  - 20% Burger or Sandwich Types
  - 12% Breakfast, Café, or Bakery Types
  - 6% Steakhouse

- Suggestion:
  - Steakhouse Restaurant
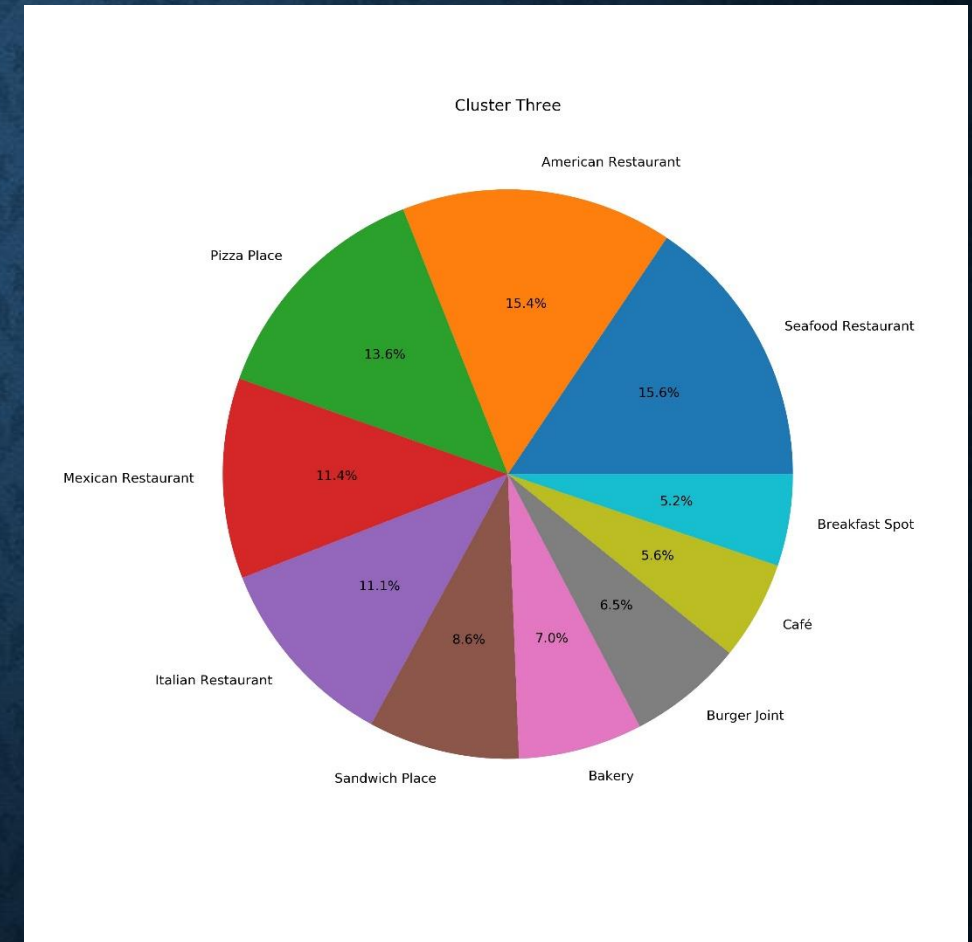 - California, Texas, or North Carolina

RESULTS AND DISCUSSION

- Cluster Two Pie Chart:
  - 21% Italian or Pizza Types
  - 10% Burger or Sandwich Types
  - 10% Seafood
- Suggestion:
  - Breakfast, Café, Bakery Style Restaurant
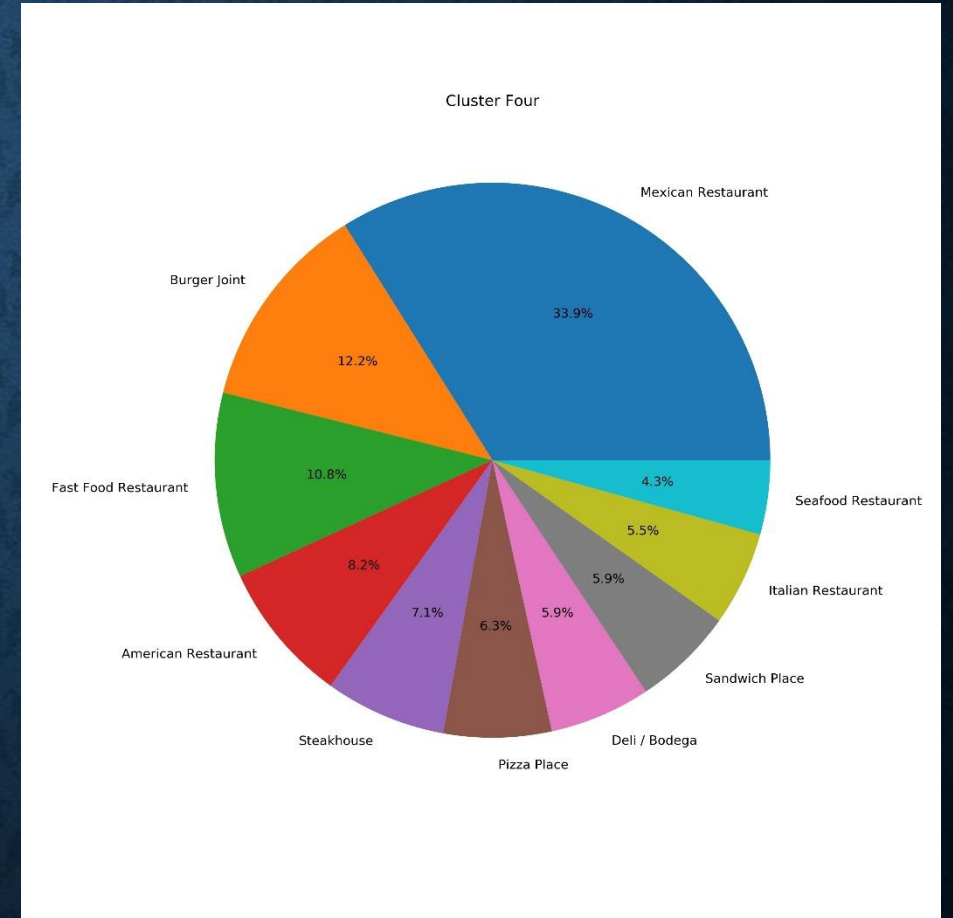 - Texas, Illinois, or California

RESULTS AND DISCUSSION

- Cluster Three Pie Chart:
    - 25% Italian or Pizza Types
    - 15% Burger or Sandwich Types
    - 18% Breakfast, Café, or Bakery Types
    - 16% Seafood

- Suggestion:
    - Steakhouse Style Restaurant
    - Steakhouses pair well with Seafood
    - Most are coastal cities
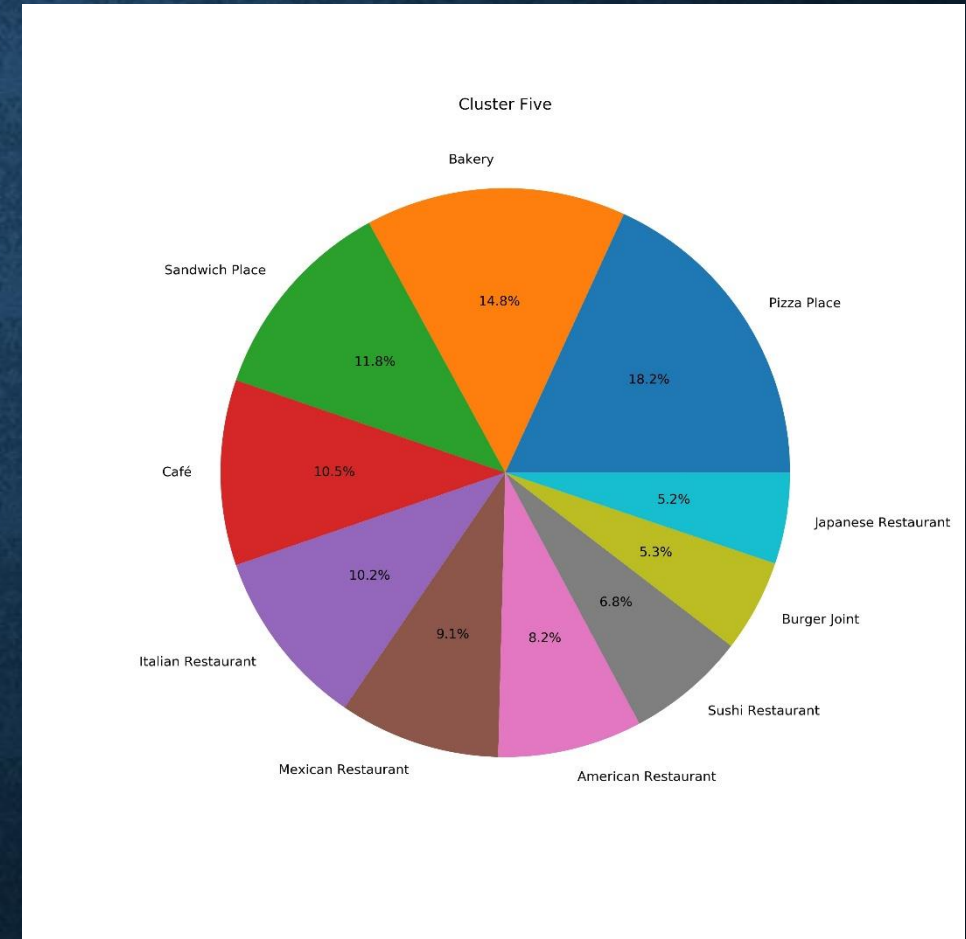
RESULTS AND DISCUSSION

- Cluster Four Pie Chart:
  - 34% Mexican Type
  - 18% Burger or Sandwich Types
  - 10% Fast food Type
  - 4% Seafood
- Suggestion:
  - Avoid these Cities
  - Low number of cities belong to cluster.
  - Overall population size is low.

Cluster Four

Mexican Restaurant 33.9%

Burger Joint 12.2%

Fast Food Restaurant 10.8%

American Restaurant 8.2%

Steakhouse 7.1%

Pizza Place 6.3%

Deli / Bodega 5.9%

Sandwich Place 5.9%

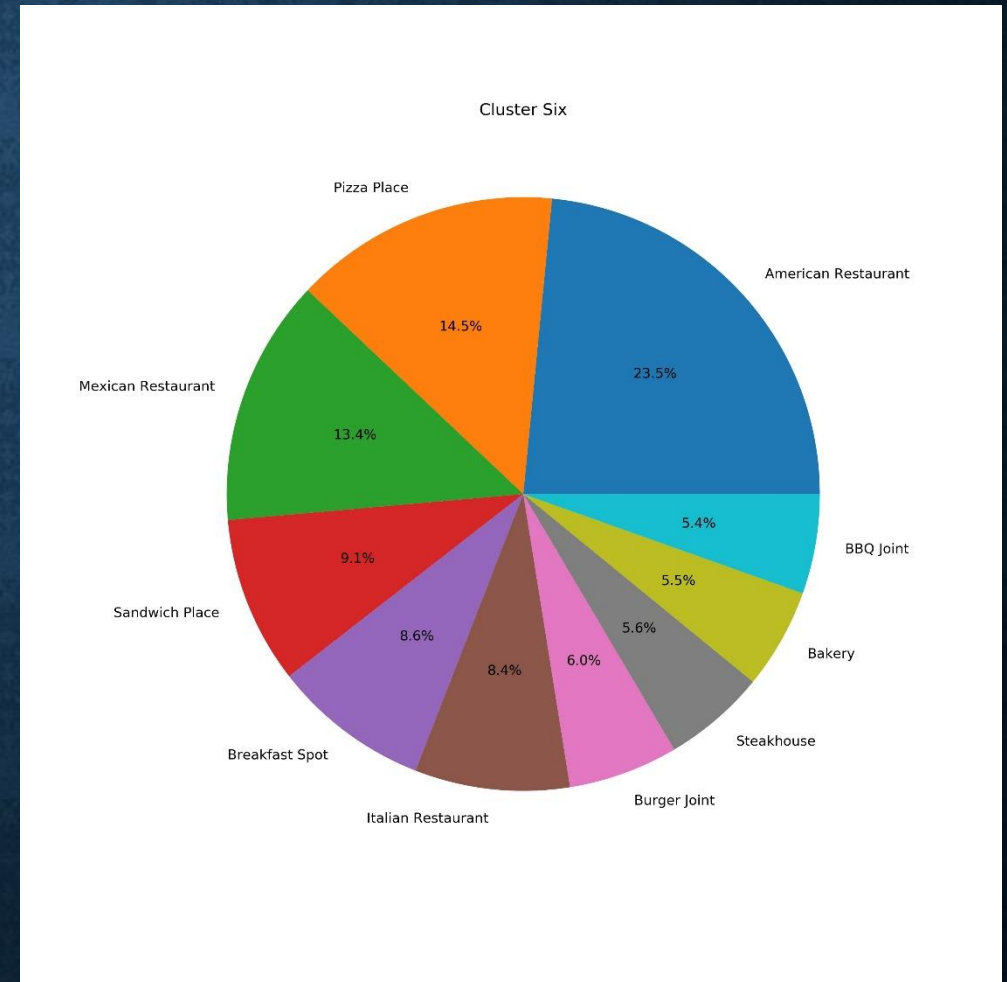Italian Restaurant 5.5%

Seafood Restaurant 4.3%

RESULTS AND DISCUSSION

- Cluster Five Pie Chart:
  - 28% Italian or Pizza Types
  - 25% Café or Bakery Types
  - 16% Burger or Sandwich Types

- Suggestion:
  - Japanese, Sushi, or Seafood Style Restaurant
  - Cluster dominated by California
  - New York City is also a member

RESULTS AND DISCUSSION

- Cluster Six Pie Chart:
  - 23% Italian or Pizza Types
  - 13% Breakfast or Bakery Types
  - 15% Burger or Sandwich Types
  - 23% American

- Suggestion:
  - Cafe Style Restaurant to compliment the Bakeries and breakfast type restaurants already available.
  - Illinois or Colorado for the locations

RECOMMENDATION

- Start a Café, Breakfast, and Bakery Chain in one of the three listed location to start:
  - Dallas and the surrounding cities
  - Houston and the surrounding cities
  - Chicago and the surrounding cities.
- Los Angeles could be the next expansion if successful in the areas listed above.