

Segmenting and Clustering the School District Offices in the San Mateo County

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SMCOE

The San Mateo County Office of Education (SMCOE) supports local school districts in San Mateo County by providing services that can be done more efficiently and economically at the county level.

Address: 101 Twin Dolphin Dr, Redwood City,
CA 94065



23 School Districts

Bayshore Elementary

Belmont-Redwood Shores Elementary

Brisbane Elementary

Burlingame Elementary

Cabrillo Unified

Hillsborough City Elementary

Jefferson Elementary

Jefferson Union High

Pacifica

La Honda-Pescadero Unified

Las Lomas Elementary

Menlo Park City Elementary

Millbrae Elementary

Portola Valley Elementary

Ravenswood City Elementary

Redwood City Elementary

San Bruno Park Elementary

San Carlos Elementary

San Mateo-Foster City

San Mateo Union High

Sequoia Union High

South San Francisco Unified

Woodside Elementary



Background and Problem

Although the county office building is often used to host events and meetings for the districts, it is not always the best location for specific purposes.

The county office may seek opportunities to partner with the districts and hosts the events and meetings in the district offices.



Purpose

The purpose of this project is to leverage the Foursquare location data to help the county office leadership decide which district offices are most appropriate for hosting certain events.



Data Sources

1. The Foursquare location data:

<https://foursquare.com/>

2. The Public District List and Location:

<https://www.cde.ca.gov/ds/si/ds/pubschls.asp>



Methodology

1. Exploratory Data Analysis:

Display the top 10 venue categories for each district

2. k-Means Clustering:

Cluster the districts into 5 clusters



Results

Cluster 1: Belmont-Redwood Shores Elementary

Cluster 2: Bayshore Elementary, Brisbane Elementary, Burlingame Elementary, Cabrillo Unified, Jefferson Elementary, Jefferson Union High, Pacifica, Las Lomas Elementary, Millbrae Elementary, Ravenswood City Elementary, Redwood City Elementary, San Bruno Park Elementary, San Carlos Elementary, San Mateo County Office of Education, San Mateo-Foster City, San Mateo Union High, Sequoia Union High, South San Francisco Unified, Woodside Elementary, and San Mateo County ROP

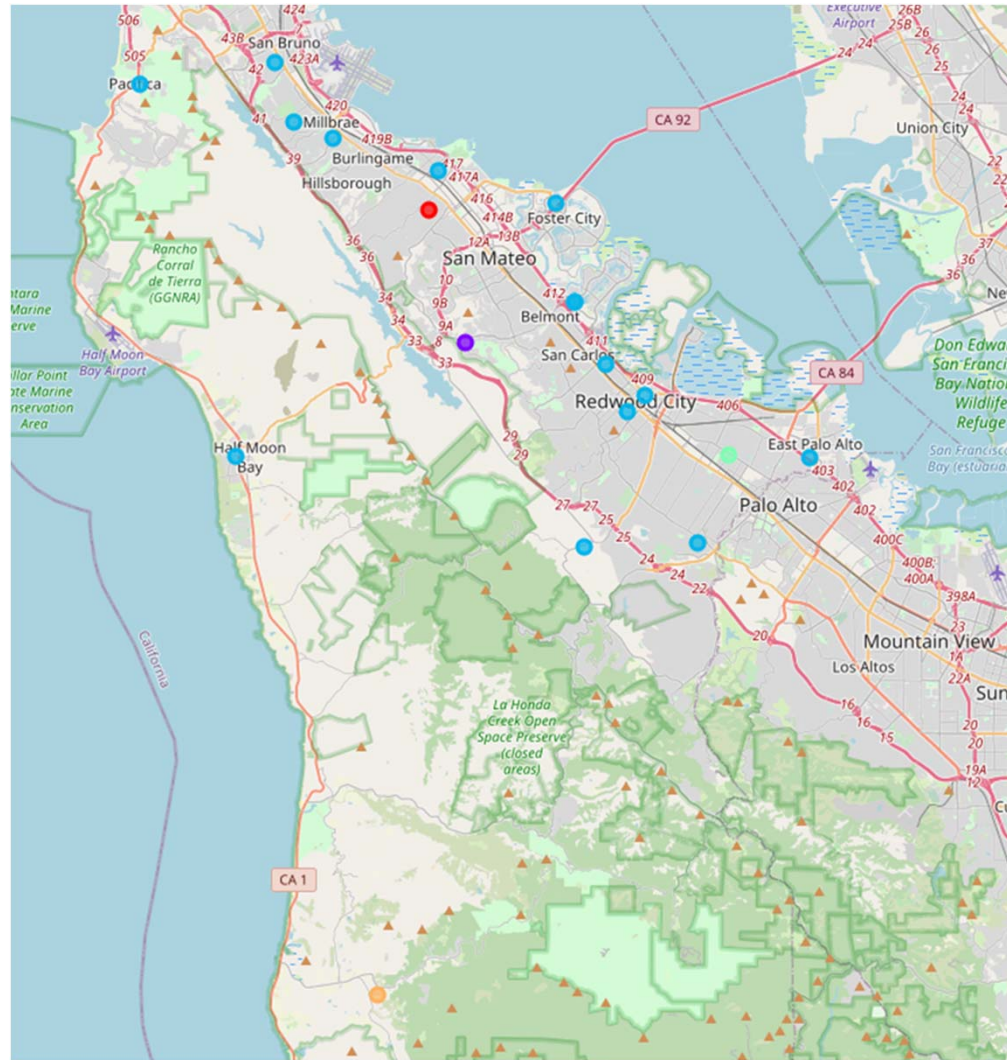
Cluster 3: Menlo Park City Elementary

Cluster 4: La Honda-Pescadero Unified

Cluster 5: Hillsborough City Elementary



See the Clusters in Map



Conclusion

If the county office needs to host a large gathering and the participants will have meals during the events, it would be best to partner with the districts in Cluster 2

Consider Hillsborough City Elementary School District for sport events and Belmont-Redwood Shores Elementary School District for outdoor education

