

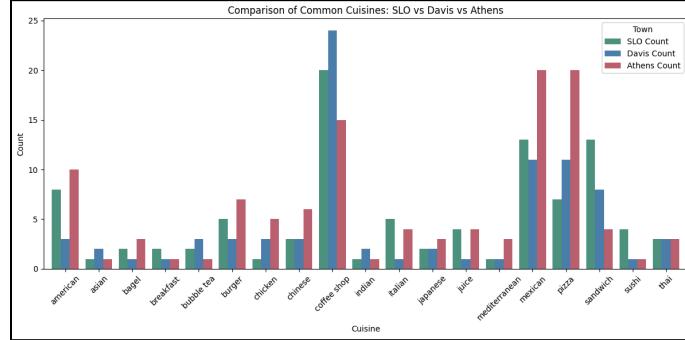
How Does San Luis Obispo's Food Distribution Compare to Other College Towns?

College towns often have distinct food landscapes shaped by student preferences, urban planning, and local culture. This report compares the distribution of food from similar college towns like San Luis Obispo (Cal Poly), Davis (UC Davis), and Athens (University of Georgia). By analyzing cuisine diversity, food amenities, clustering patterns, and distances, we explore how these towns accommodate student needs.

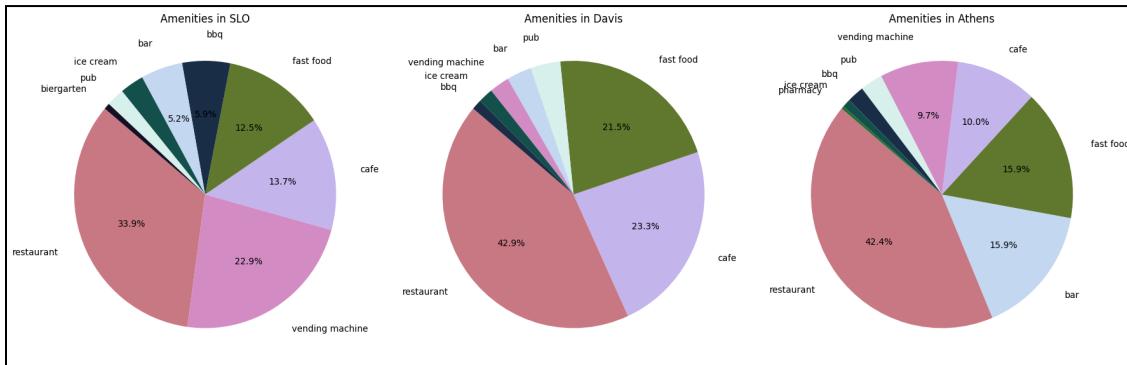
Food Type Comparisons & Distributions

The bar chart compares different cuisines that appear in each town, showing that while most cuisines have similar counts across all three towns, some differences emerge.

Certain cuisines, such as coffee shops, Mexican, pizza, and sandwich, are consistently high across all locations, while others show regional variations. Athens tends to outnumber both San Luis Obispo and Davis in almost all cuisines, especially in the cuisines with high counts, almost doubling the number of places in SLO or Davis. This could be due to Athens' larger student population and its urbanized location in the South, where these cuisines are more prevalent, which I will talk about later. Additionally, SLO and Davis have pretty comparable counts with an occasional contrast for some cuisines.

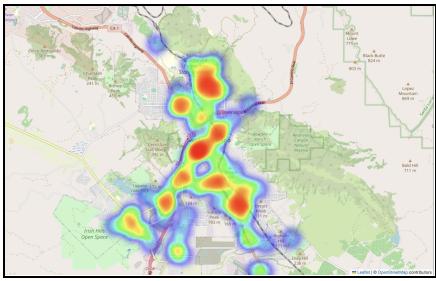


Each town also differs in the types of food establishments available. The three pie charts show the proportion of fast food, sit-down restaurants, cafes, and other food venues. Davis and Athens have a similar distribution where about 80% of their amenities consists of restaurants, cafes, fast food, and clubs/pubs. SLO, the odd one out, has about 20% of vending machines out of all their amenities. With this unusual result, I found out that there are 62 vending machines in SLO with them densely located on campus or downtown on Higuera and Marsh Street. However, other than that, SLO has similar amenities as Davis and Athens like stated before, as well as ice cream shops, which make up for around 2% for all the towns.

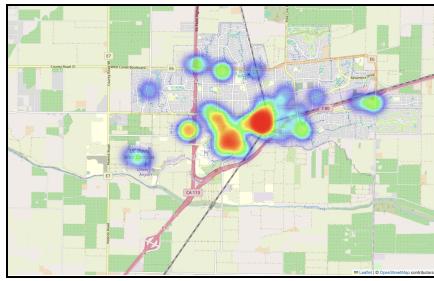


Map Visualizations of Clustering and Distance Analysis

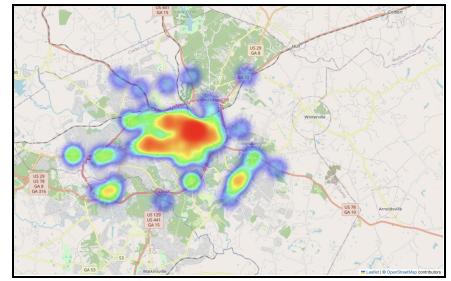
The heat maps (below) reveal how food locations are distributed across each town. In [San Luis Obispo](#) (SLO), food places are concentrated in the downtown area, with a strong presence within a 30-minute walking distance of Cal Poly. The distribution stretches north and south, with more rural areas to the east and west. [Davis](#) shows a more dispersed pattern, with food clusters near both the university and residential areas, stretching along the east-west axis. [Athens](#), similar to SLO, has food places concentrated around the university campus, but in a more compact area. All three towns have food concentrated in urban areas, particularly near downtown and university campuses, with different geographic alignments influencing the clustering.



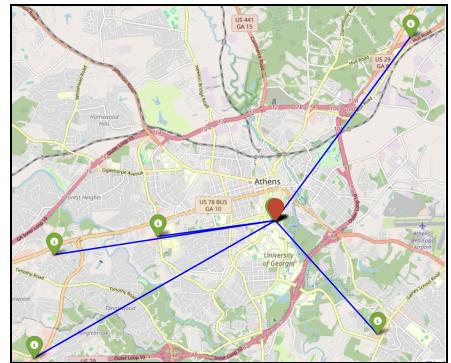
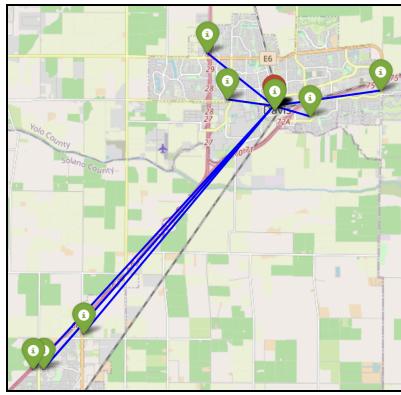
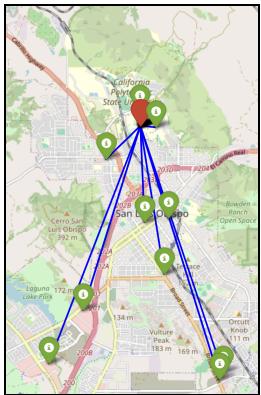
San Luis Obispo



Davis



Athens



During my exploratory analysis, I found out that Starbucks is the most prevalent brand across the three campuses. The visual below maps the distance from campus to all nearby [Starbucks](#) in each town. San Luis Obispo, with a total of 10 Starbucks, has many Starbucks on campus, with several clustered south, downtown, indicating a high foot traffic area. Davis, similarly, has many near campus, but with a few in the nearby city of Dixon, reflecting the town's spread-out nature. Athens' Starbucks locations, in contrast, are farther from main food clusters, suggesting a more suburban layout and different patterns of commercial zoning compared to SLO and Davis. This difference in location patterns hints at variations in student behaviors, foot traffic, and the urban design of each town.

After performing K-Means Clustering (to the right, in order of towns by bullet points), the food location patterns around the universities reveal distinct spatial trends:

- **San Luis Obispo:** The clusters are concentrated on and near the campus, with a high prevalence of vending machines and fast food outlets. More diverse dining options are farther from campus, particularly in areas like downtown, Madonna, and Broad Street.
- **Davis:** Similar to San Luis Obispo, Davis also shows clustering around and near the campus and downtown. Additionally, a few food centers appear farther out, suggesting the presence of food hubs in peripheral areas.
- **Athens:** The clustering pattern in Athens appears more organized, with clusters evenly distributed from west to east. There are food centers concentrated in the western part, residential areas, and the campus/downtown area as a unified cluster. Sparse vending machines are seen, and shopping centers dominate the eastern region.

Overall, my analysis confirms that food locations are more densely concentrated near university campuses, with distinct patterns emerging in each city. While San Luis Obispo and Davis show a mix of fast food and diverse dining options near campus, Athens displays more evenly spread clusters, reflecting different patterns of urban planning and food accessibility.

