Since 1970, the amount of farmers markets has increased over 2000%. Farmers markets reduce the use of fossil fuels, increase access to fresh produce, boost local economies, and enhance the degree of social interaction through shopping (3). The National Farmers Market Summit Report in 2008 stated that farmers markets “most increase consumer access in low-income areas”, suggesting that farmers markets do not adequately serve low-income citizens (4). This is problematic because low socioeconomic areas tend to buy cheaper, less healthy foods (3). However, between 1975 and 2015, the number of farmer’s markets in urban neighborhoods has risen from 340 to over 8000 (3).

Research Questions:
- Are farmers markets predominantly located in counties of a certain income or population density bracket?
- What is the accessibility of California farmers markets to people relying on public transportation?
- Does the distribution of farmers markets in Los Angeles County completely serve communities of low socioeconomic status?

Introduction

The study area encompasses the state of California with a focus on Los Angeles County farmers markets for spatial analysis. The county data and transportation information was found through the California Census Bureau.

METHODS

Farmer market service areas were assessed using a buffer operation of all farmers market not within a 1 mile proximity of a bus stop was considered inaccessible. Increasing distance values of 1 through 10 (1 = 0.25 miles 10 = 2.5 miles) Any farmers classified each increment into 0.25 miles. Each increment was reclassified into

After completing a euclidean distance operation on the farmers market locations, we used the distance from Metro Bus stops and farmers market locations.

To determine the accessibility of farmers markets for low socioeconomic people in Los Angeles, we used the distance from Metro Bus stops and farmers market locations. An increase in the distance from public transportation to farmers market locations can be an indicator of accessibility.

Figure 2: The simple buffer results of the service areas of LA farmers markets are shown here on top of a layer of income by city. The gap of service area in South-Central LA in particular is in a low income, highly dense area. Low-income was established by using the definition of low-income from the Housing Authority of the county of Los Angeles. Low-income = $48650 for 1 individual (1).

There is a stronger positive relationship between population density and farmers market locations.
- Population density better explains the variability of farmers markets in each county.
- Most inaccessible farmers markets occur more often in areas of mid-income and moderately-dense population.
- Service areas don’t serve LA county well, notably for low-income, highly populated areas.
- Our available data limited our study area for accessibility as public transportation networks were unreachable for extended areas of LA.
- Finding the number of vendors per farmer’s market and the range of number of vendors across all California farmers markets proved difficult and limited the analysis possible on farmers market sizes and their respective differences in relation to socioeconomic relationships.
- Future research could compare the accessibility of farmer’s markets in areas of high and low number of farmer’s markets to determine if accessibility is possibly a variable that affects the number of farmers markets in a location.
- Additionally, the spatial relationship between participating farms and farmers market location could also be investigated to see if the proximity of farms is a variable that affects the number of farmers markets in a location.

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