Abstract
The USDA defines a food desert as “a low income-census tract where either a substantial number or share of residents has low access to a supermarket or large grocery store.” This is the case with South Los Angeles, where grocery stores are scarce, magnifying the dependency on corner and convenience stores, and fast food restaurants. Government and advocacy organizations recognize this as an issue of inequity, yet the problem persists. Meanwhile, the data that is available is not comprehensive and is quickly becoming outdated. The aim of this study is to develop a detailed, current map of where fresh, healthy food is unavailable in South Los Angeles, and whether this is correlated with population demographics. This project will illuminate persisting inaccessibility of fresh, local, organic produce in South Los Angeles and provide data for residents and political activists fighting to bring healthy food back into this food desert.

Introduction
• Background:
  - Nearly 1 million Californians live in food deserts and 45% of those affected are low income.
  - 13% of residents, and 20% of low income residents, in LA county don’t have access to fruits and vegetables in their neighborhood.
  - In the 1960s, as the white middle and upper-class population moved from the city of LA into the surrounding suburbs, grocery stores followed.
  - A study from 2001-2011 examining access to healthy food in LA found that grocery stores in South LA had fewer healthy options and that healthy food options were more expensive in South LA than in other communities.
  - Among South LA residents 33% were found to be obese, 10% were diabetic, and 30% suffered from hypertension.
• Research Questions:
  - Where are grocery stores, corner and convenience stores, fast food restaurants, and bakeries located in South LA?
  - Where is fresh, local, organic produce unavailable in South Los Angeles?
• Hypothesis:
  - I expect to find a low density of grocery stores offering fresh, local, and organic produce, and a high density of bakeries, corner and convenience stores and fast food restaurants.

Methods
• Grocery stores, corner and convenience stores, fast food restaurants, and bakeries were located using Google Maps Street View and mapped using My Maps.
• Grocery stores were surveyed on whether they offered fresh, local, or organic produce, and the price of apples.

Data

Figure 1. Store locations and type and median household income in South LA

Figure 2. Grocery stores in South LA

Figure 3. Convenience and corner stores in South LA

Figure 4. Fast food restaurants in South LA

Figure 5. Ethnicity in South LA

Figure 6. Median household income in South LA

Figure 7. Frequency of store type in South LA

Table 1. Demographics of South LA

<table>
<thead>
<tr>
<th>Neighborhoods</th>
<th>Population</th>
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<tbody>
<tr>
<td>South LA</td>
<td>792,642</td>
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Results & Implications
• A low density of grocery stores, and a high density of corner and convenience stores and fast food restaurants was found.
• 94% of food retail outlets in South LA were found to be convenience stores, which is consistent with the CHC study conducted 8 years ago, indicating that while the population in South Los Angeles continues to grow, the accessibility to fresh food does not.
• 12.5 times more fast food restaurants were found than grocery stores.
• Fresh produce was available at 100% of the 19 grocery stores that responded.
• Local produce was available at 100% of the 16 grocery stores that responded.
• Organic produce was available at 8 of the 16 grocery stores that responded.
• The price of apples ranged from $0.50/lb - $1.29/lb.
• The inaccessibility of fresh healthy food in South LA is a persistent problem.
• Fewer healthy options leads to comparatively higher rates of obesity, diabetes, and hypertension. And higher death rates attributed to diabetes and coronary heart disease.
• More statistical analysis is needed to determine the correlation between population demographics and the frequency of different types of stores.
• In future studies, data will be collected in more affluent neighborhoods in LA for comparison.

Literature Cited

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