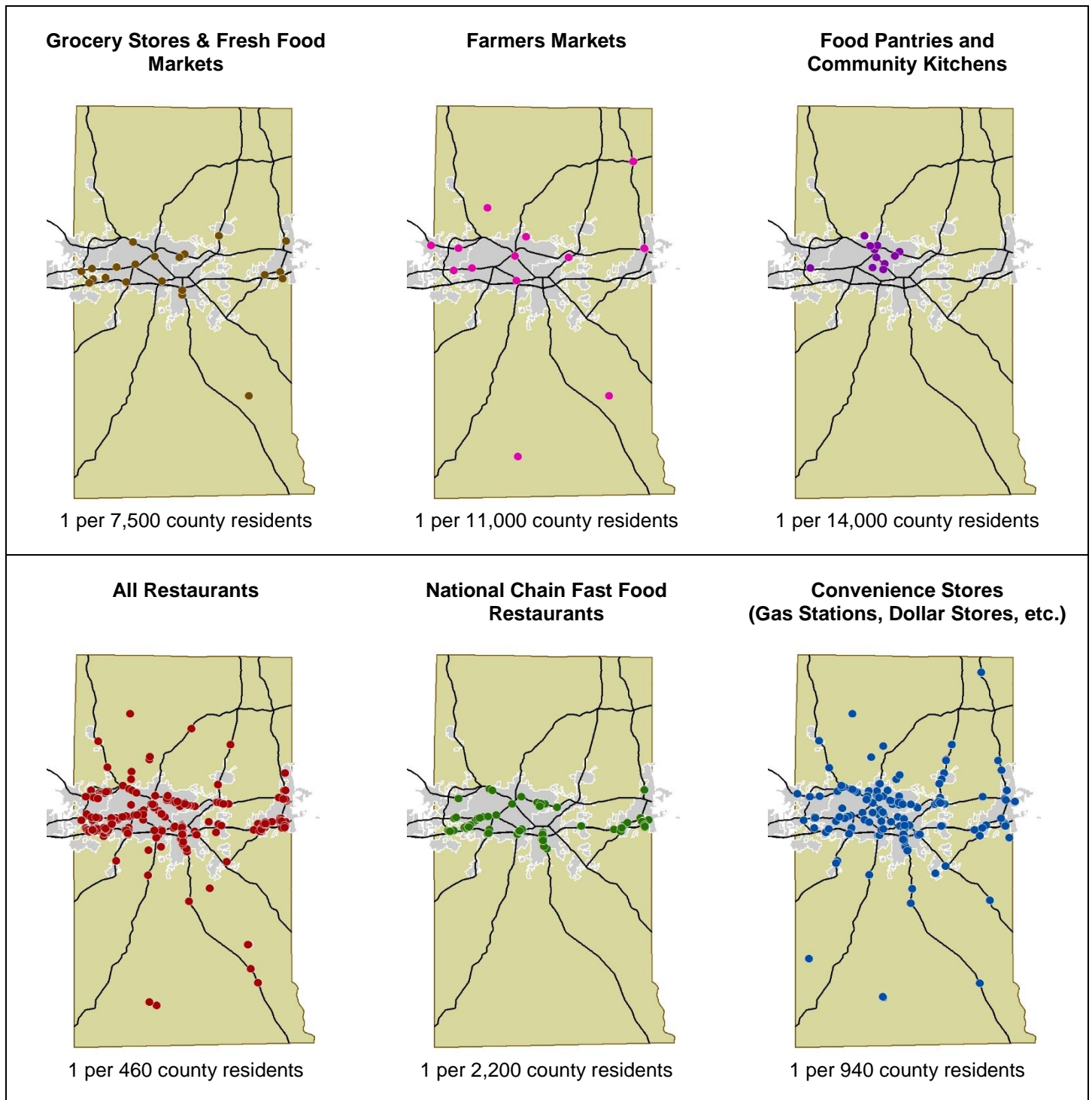


Alamance County Food Accessibility Inventory

Elon University students in a Fall 2016 course titled GIS and Environmental Health compiled a geographic database of food options within the county and analyzed the food accessibility patterns. This document summarizes central results.



Notes: Restaurants were identified via sanitation inspection records over the previous 12 months. All other data layers compiled manually by Elon students from various public sources and aerial imagery provided by Google and the State of North Carolina. Per capita rates are based on 2016 County Population and identified food sources from this study. If you see any needed updates or corrections, please contact Ryan Kirk at rkirk2@elon.edu.

Parcel-level analysis

Closest Food Sources by Household location and Types of food.

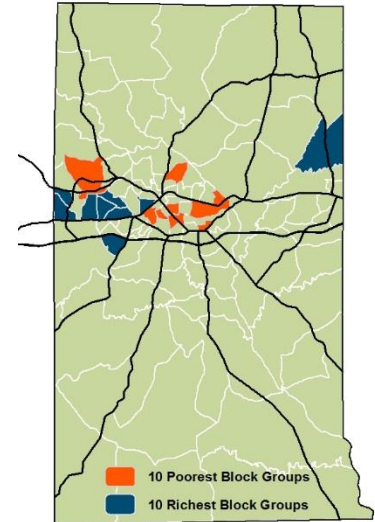
All households averaged by jurisdiction	Estimated Number of Households*	Average Household Distance to Nearest 3 Convenience Stores or Fast Food Restaurant	Average Household Distance to Nearest 3 Grocery Stores or Farmers Market
Within municipalities	36,900	0.5 miles	1.2 miles
Within Extraterritorial Jurisdictions (ETJs)	5,400	1.0 miles	1.8 miles
Outside of municipalities or ETJs	16,600	2.8 miles	5.0 miles
Countywide average	59,000	1.3 miles	2.4 miles

* We estimate number of households per residential parcel based on county Parcel Use Description. Our method results in 11% fewer households than the US Census Bureau countywide household tally. We likely underestimated the number of apartment units, which are more concentrated in municipalities or ETJs.

Block-Group Level Analysis

Average Accessibility for Poorest and Richest Block Groups based on Average Per Capita Income

	Average Household Distance to Nearest 3 Convenience Stores or Fast Food Restaurant	Average Household Distance to Nearest 3 Grocery Stores or Farmers Market
10 Poorest Block Groups	0.4 miles	1.1 miles
10 Richest Block Groups	0.6 miles	0.9 miles

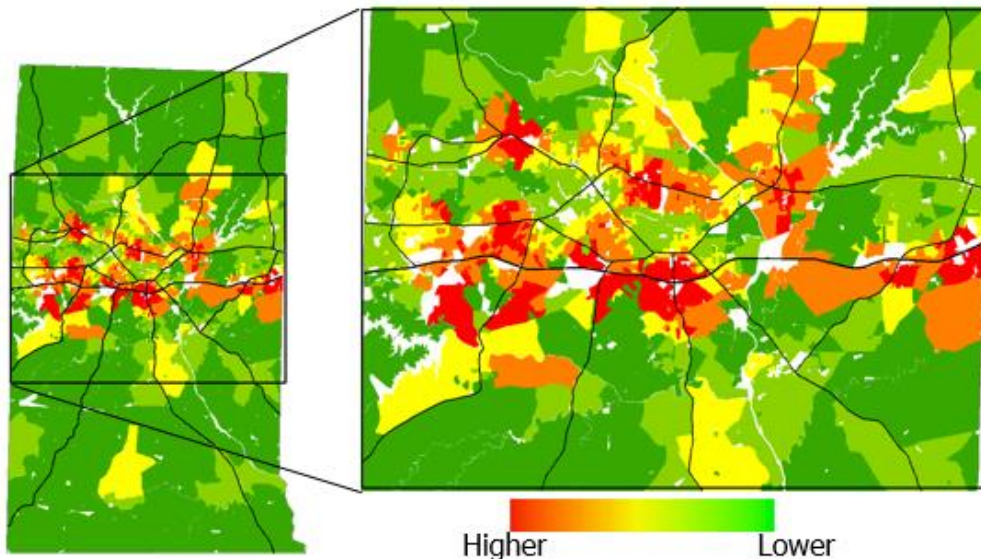


Mapping Swamps and Oases

Swamps (unhealthy amenities): Gas Station/Convenience Stores + Fast Food

Oases (healthy amenities): Fresh Food Groceries + sidewalks + recreation features

Ratio Map of Swamps to Oases highlights inconsistencies in access:



Future Goals

We hope to continue developing these data and make them actionable in the following ways:

- Develop a neighborhood classification to identify patterns at sub-Census Block level.
- Develop a Block level and neighborhood-level social inequality index. This will combine access to food with access to other healthy living amenities (sidewalks, greenspaces) that can be used to target specific initiatives.

Ideas for collaborations? Contact Ryan Kirk, rkirk2@elon.edu