

Examine the Feasibility of Using GIS Data to Catalog a Representative Sample of Food Deserts and Characteristics of the SNAP Households Residing There

Client: U.S. Department of Agriculture, Food and Nutrition Service

Project Overview

The purpose of this study was to identify and evaluate various data sources and geographic information system (GIS) tools that potentially could be used as inputs for identifying a representative sample of food deserts. The findings from this study helped the Food and Nutrition Service (FNS) to better meet the needs of Supplemental Nutrition Assistance Program (SNAP) households by improving access to a variety of high-quality, affordable food retailers. Such access often is compromised in low-income areas where corner stores, convenience stores, and fast-food restaurants may outnumber or take the place of supermarkets and other food retailers that offer a greater variety of healthy foods.



The research questions addressed by this study included:

- What sources of data are available on SNAP households (e.g., addresses, household characteristics, and food-shopping patterns)? What are their key features?
- What sources of data are available on food outlets (e.g., address, store type, SNAP retailer, and other characteristics)? What are their key features?
- What tools are available to link the relevant data sources and identify food deserts (with or without GIS)? What are their key features?
- What resources and procedures will be needed to access and use these data and tools as inputs for an ongoing catalog of food deserts for SNAP? How do they compare in terms of format requirements, accuracy, detail level, cost, and maintenance effort?
- What are the advantages, limitations, and uncertainties involved with each alternative?



The project included 5 components: 1) develop a detailed understanding of project needs and requirements; 2) conduct an environmental scan of extant data sources (for identifying addresses and characteristics of SNAP households and food stores); 3) conduct an environmental scan of GIS options for geocoding, distance calculations, and data linkage; 4) prepare a detailed assessment of the advantages and limitations of identified data sources and GIS options, both as stand-alone resources and used in combination with other resources; and 5) deliver a final report that describes the identified resources, provides the results of the analyses, and provides recommendations based on our research.

Core Activities

Literature Reviews and Environmental Scans; GIS Mapping; Report Development and Presentation; Developing/Synthesizing Recommendations

Products

The final report is entitled “Examine the Feasibility of Using GIS Data to Catalog a Representative Sample of Food Deserts and Characteristics of The SNAP Households Residing There.” (February 2012)