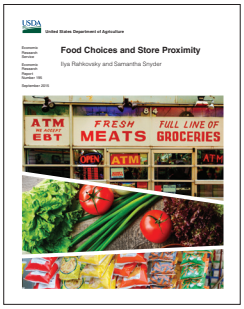
United States Department of Agriculture

A report summary from the Economic Research Service

September 2015



Find the full report at *www.ers.usda.gov/publications/err-economic-research-report/err195*

Food Choices and Store Proximity

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What Is the Issue?

In 2010, 9.7 percent of the U.S. population lived in low-income areas more than 1 mile from the nearest supermarket. The diet quality of these consumers may be compromised by their food environment. Some may be unable to reach supermarkets regularly or without effort, instead buying food from nearer stores that offer less healthy food products. Retailers may be discouraged from locating in low-income areas due to insufficient demand, and poverty can prevent the residents of these areas from obtaining lower priced and better quality products far (over 1 mile for urban consumers, 10 miles for rural) from their homes.

Understanding how access to supermarkets affects the healthfulness of food purchases may help policymakers determine the value of attracting supermarkets to underserved areas. USDA's Economic Research Service conducted two large-scale studies to define low-food-access areas and to identify the population living in those areas. This report investigates the correlation between living in low-income, low-access (LILA) areas and the purchase of 14 major food groups in order to estimate the effect on diet quality of living in LILA areas. The researchers accounted for the prices consumers face and their demographic characteristics.

What Did the Study Find?

Living in a LILA area has only a modest negative effect on the healthfulness of food purchases—a difference too small to explain much of the national disparities in diet quality and obesity—and this effect is only slightly alleviated when LILA consumers travel farther from their homes to purchase food. Even after traveling to stores farther from their home, LILA area consumers tend to buy less healthy food. Thus, as the effect of living in LILA areas on diets is modest, improvements in dietary quality are likely only with a multi-pronged policy approach that addresses hardwired shopping and eating habits in addition to retail coverage. Among the report's findings:

- Food prices paid by LILA and non-LILA consumers were very similar. There is no evidence that LILA consumers are paying more for healthful foods.
- Consumers living in LILA areas bought 4.5 percent less fruit, 2.7 percent fewer vegetables, and 10.8 percent fewer low-fat milk products than consumers not residing in LILA areas. At the same time, they bought 8.9 percent more red meat, 5.0 percent more diet (soda) drinks, and 3.3 percent more nondiet drinks.

- LILA consumers travel slightly farther from home to purchase their food. Almost all LILA households traveled to stores more than 1 mile from their home, the distance commonly used to delineate low food access. Thus, of the 7.7 percent of households in the Homescan sample who lived in LILA areas, very few limited their food purchases to the LILA areas.
- LILA consumers who travel farther to buy food purchase more fruits, vegetables, fish, and poultry and fewer drinks (diet and nondiet), but the magnitudes of these effects are small and they cannot explain large nutritional disparities observed in the population.
- Separating the LILA measure into low-access areas and low-income areas shows that low income is more strongly associated with the purchases of unhealthful food than is living in an area with limited access to supermarkets.

The study has several limitations. First, the survey, which measures consumer food purchases, underrepresents poor consumers. Similarly, the data on store locations lack some small independent stores, which are prevalent in poor areas. Third, we disregard food choices in schools and restaurants, so results pertain only to food purchased at grocery stores and other purchases for at-home consumption. Given these limitations, the results of this study may not apply to very poor households or to individuals who primarily eat away from home.

How Was the Study Conducted?

This report uses household food purchase and characteristics data from the 2010 Nielsen Homescan Panel Survey; food retail locations data from the TDLinx retail database; census tract locations and demographic data from the U.S. Census Bureau; and food-access data from the ERS Food Access Research Atlas. These data were used to estimate a demand model of 14 food groups, which cover most food products eaten at home. We selected groups with maximum nutritional differences to establish a measure of dietary quality and to measure consumer preferences for healthy foods.

The researchers estimated food product demand elasticities for consumers in LILA areas. With information on household and shopping locations, we calculate the distance traveled by each household on each shopping trip and the items purchased on that trip. With information on both residential location and shopping outlet location, we are able to determine whether there is a relationship between distance traveled for shopping and the healthfulness of the items purchased on a given shopping trip.