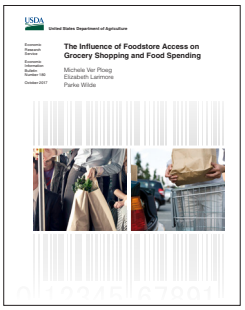
United States Department of Agriculture

A report summary from the Economic Research Service October 2017



The Influence of Foodstore Access on Grocery Shopping and Food Spending

Michele Ver Ploeg, Elizabeth Larimore, and Parke Wilde

What Is the Issue?

Researchers have hypothesized that poor access to food retailers that sell a wide range of healthy and affordable foods results in poorer diet and diet-related health problems. Lack of access to stores such as supermarkets may mean that households rely more heavily on nearby retailers, such as convenience stores or fast-food restaurants, which do not typically offer a wide variety of healthful foods.

Existing studies often use measures of neighborhood-level access to a healthy food retailer (or "presumed access"), assuming that households are limited to retailers in their neighborhoods. USDA's National Household Food Acquisition and Purchase Survey (FoodAPS) contains abundant information on the food retail environment of neighborhoods where sampled households live and on household resources, such as vehicle ownership and income, that facilitate access to food retailers. These data enable a new analysis of how the local food environment and household resources are related to where households acquire food and how much of their food budget is spent at various types of retailers.

What Did the Study Find?

Six percent of U.S. households are access-burdened: they do not use their own vehicle to travel to the store for groceries and live more than 0.5 mile from the nearest SNAP-authorized supermarket or superstore (SM/SS), which we use to proxy the nearest source of healthy and affordable food. Further analysis showed that:

- Seventy-seven percent of access-burdened households reported a shopping event at a supermarket, superstore, large grocery store, or warehouse store during the survey week compared to 87 percent for households with sufficient access. Of those who visited these large stores during the survey week, sufficient-access households had 2.8 shopping events at such a store, while access-burdened households averaged 2.4 shopping events.
- Although they average fewer trips, access-burdened households spend almost the same percentage of their weekly food expenditures at large stores as households with sufficient access—57 percent of total spending for access-burdened households and 58 percent for sufficient-access households.
- The per capita spending of access-burdened households at such stores is slightly lower—$28.77 on average for the survey week compared with $29.97 for households

ERS is a primary source of economic research and analysis from the U.S. Department of Agriculture, providing timely information on economic and policy issues related to agriculture, food, the environment, and rural America.

with sufficient access. These findings suggest that access-burdened households overcome limited food retail options to spend similarly to sufficient-access households at large stores.

Access-burdened households have a median monthly income of $1,240 compared to $4,388 for sufficient-access households, which may account for some of the differences in spending patterns at restaurants and other types of stores. The analysis showed that:

- Access-burdened households are less likely to acquire food from a restaurant than households with sufficient access (69.5 percent compared with 85.8 percent).
- Access-burdened households spent less per capita ($9.90) during the survey week at restaurants compared to households with sufficient access ($19.56). Their spending was also a smaller percentage of their food expenditures (27 percent compared to 37 percent).
- Access-burdened and sufficient-access households are equally likely to visit convenience stores, dollar stores, or pharmacies to acquire food, although there are differences in their levels of spending at these locations.
- Access-burdened households spent $1.32 more per capita during the survey week at convenience stores, dollar stores and pharmacies than those with sufficient access.

We conducted two additional, separate analyses to further interpret our findings. The first compared burdened-access and sufficient-access households in a subsample of SNAP and low-income nonparticipating households (households with income at or below 185 percent of Federal poverty guidelines for family size). We found the food acquisition patterns of this subsample similar to the patterns of access-burdened and sufficient-access households in the full sample.

The second analysis used an access measure based solely on distance to the nearest SNAP-authorized SM/SS, a typical measure of access in the literature, with our full sample. In this analysis, we found few differences in food acquisition patterns by distance to the nearest SNAP-authorized SM/SS, with one exception: households at least 10 miles from the nearest SNAP-authorized SM/SS are less likely to buy food at large stores and restaurants but more likely to buy at small grocery, ethnic, or specialty stores and convenience, dollar, and pharmacy stores than households within 0.5 miles of the nearest SNAP-authorized SM/SS.

How Was the Study Conducted?

This report uses data from the USDA's FoodAPS (conducted between April 2012 and January 2013) and the FoodAPS Geography Component (FoodAPS-GC). FoodAPS, a nationally representative USDA survey of U.S. households, collected detailed information about foods and beverages obtained over a 7-day period. Respondents reported where they obtained foods and how much they spent, along with information on their usual food shopping locations and typical travel mode. We appended data about the food retail environment, such as store proximity, indicators of limited foodstore access, and other food- and diet-related measures to the survey data. Our report uses measures of foodstore access to understand where access-burdened households acquire food and how much they spend at each food source (per capita and as a percentage of their total food expenditures) compared to households with sufficient access.

This analysis shows descriptive cross-tabulations and means, weighted to represent the national U.S. population. Standard errors and hypothesis tests are corrected for the complex survey design using the Taylor Series expansion method. Results reported are statistically significant at an alpha of 0.10.