

Where Are the Grocery Stores?

BY EAMON O'KEEFE

According to the Centers for Disease Control and Prevention, more than one-third of all Americans are obese, costing the nation an estimated \$147 billion per year. Some research has linked obesity to poverty, perhaps because access to healthful foods is limited in many low-income communities. Often called food deserts, these areas contain few or no grocery stores, leaving residents with only fast-food restaurants and convenience stores.

To combat poor nutrition among low-income households, policymakers have implemented laws aimed at improving access to healthful food in these food deserts. The Agricultural Act of 2014 included \$125 million per year to be spent on increasing access in underserved communities, and states have taken similar actions. But is improving access an effective approach to improving nutrition among low-income households?

In a new National Bureau of Economic Research working paper, Jessie Handbury of the Wharton School at the University of Pennsylvania, Ilya Rahkovsky of the Economic Research Service of the U.S. Department of Agriculture, and Molly Schnell of Princeton University take a closer look at whether food deserts are indeed driving poor nutrition in low-income communities. They find that access is responsible for very little of the socioeconomic disparities in the nutritional value of household purchases. As a result, improving access will not necessarily increase the healthfulness of the purchases made by the lower-income and less-educated residents of these neighborhoods.

The researchers begin by combining data from market research firms Nielsen, Gladson, and IRI to create a data set of grocery store purchases of more than 100,000 households in 52 U.S. markets between 2006 and 2011. By comparing purchase data to Food and Drug Administration (FDA) nutrition guidelines, the researchers find that households with lower incomes and less education made less healthful purchasing decisions than their higher-income and better-educated counterparts. The top third of households based on income and education were 40 percent closer to FDA nutrition guidelines than households in the bottom third of the income and education distributions.

Not surprisingly, Handbury and her co-authors find that access to high-quality nutritious food is much greater in high-income neighborhoods. Using data from 30,000 U.S. food retailers, they identify a small but statistically

significant relationship between the income and education levels of a community and access to more nutritious foods, in terms of both the number of stores in a given area and the products offered at those stores.

But is limited access driving unhealthy food purchasing decisions in food deserts or are retailers responding to a lack of local demand? As the authors suggest, if there is little demand for healthful food in poorer neighborhoods, supermarkets are unlikely to stock it. The researchers attempt to answer this question of causation by controlling for the location of food purchases. To do so, they compare purchases by consumers within both the same census tract and

the same store. They find that the majority of the socioeconomic disparities in food purchases remain after controlling for location.

The link between education and food purchases is much stronger than the link between income and food purchases. Controlling for location

reduces the association between income and the nutritional quality of food purchases by about half but reduces the association between education and food quality by only 10 percent.

The researchers also find that when new stores offering more healthful food options enter food deserts, people don't change their buying habits very much. Their research shows residents of food deserts are aware of new stores entering and even adjust where they shop, but they don't change what they buy. As a result, the gap in nutritional consumption between low-income and high-income consumers closes by only about 1 percent to 3 percent.

Although the authors don't provide a definitive explanation of why access to healthful food seems to play such a limited role, they do offer some ideas. They suggest these differences might be attributed to tastes and preferences, differences in price sensitivities, and budget constraints. In future research, the authors aim to determine which of these factors are most important.

The findings in this paper, if representative, may have important implications for policy. If a public policy goal is to improve the nutritional value of low-income households' food purchases, this research indicates that a focus on improving access may not yield meaningful results. As the authors conclude, "Our results provide strong evidence that policies which aim to reduce nutritional disparities by improving access to healthful foods will leave much of the disparity unresolved." **EF**

"What Drives Nutritional Disparities? Retail Access and Food Purchases Across the Socioeconomic Spectrum." Jessie Handbury, Ilya Rahkovsky, and Molly Schnell. National Bureau of Economic Research Working Paper No. 21126, April 2015