

Find the full report at www.ers.usda.gov/publications

Low-Income and Low-Supermarket-Access Census Tracts, 2010-2015

Alana Rhone, Michele Ver Ploeg, Chris Dicken, Ryan Williams and Vince Breneman

What Is the Issue?

Limited access to supermarkets, supercenters, grocery stores, or other sources of healthy and affordable food may impede the ability of some Americans to achieve a healthy diet. The Food Access Research Atlas (FARA) is a Web-based mapping tool that allows users to investigate access to food stores at the census-tract level. The FARA is utilized by Federal, State, and local governments, community planners, public health officials, and researchers to understand food store access in communities—as well as the consequences for food shopping, diet, and dietary health—and to target interventions to improve access. Previous estimates of low-income (LI) and low-access (LA) census tracts use data that are now more than 5 years old and do not reflect recent changes in the locations of stores nor broad changes in economic conditions. This report updates estimates of food store access using more recent data.

What Did the Study Find?

Low-income (LI) and low-access (LA) status of census tracts are measured separately, with the overlap of tracts that are both LI and LA comprising LILA tracts. Our findings first discuss these two components separately, and then jointly.

LI status is determined by poverty rates (at least 20 percent) or median family income (at or below 80 percent of the metropolitan area or State median income) in each census tract.

- The number of census tracts classified as LI increased from 29,285 in 2010 to 30,870 in 2015, or 5.41 percent

LA status of a tract is measured four ways. Three of these measures are based solely on proximity to the nearest store, demarcated by the use of different distance thresholds (0.5 and 1 mile in urban areas; 10 and 20 miles in rural areas). The fourth measure is based on the number of households without a vehicle that are more than 0.5 mile from the nearest store and the number and share of people more than 20 miles from the nearest store.

- The number of tracts that are classified as low access (LA) based solely on proximity decreased across all three measures from 2010 to 2015. These estimates show improvements in the proximity of supermarkets for the total population (regardless of income).

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.

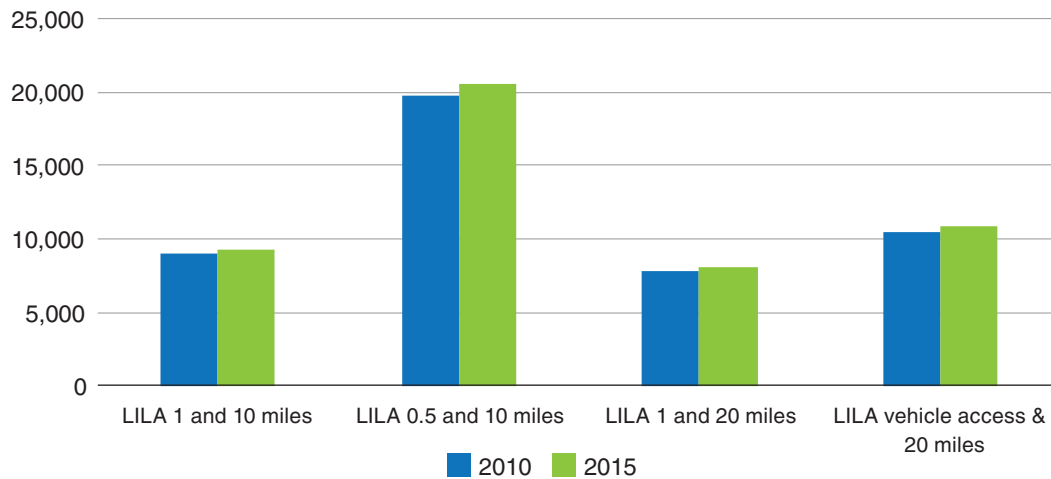
- In contrast, the fourth measure of low-access tracts increased between 2010 and 2015. This increase reflects an increase in the number of households without vehicles that are more than 0.5 mile from the nearest store.

Even if the LA status of tracts did not change between 2010 and 2015, there would have been an increase in the number of LILA tracts because more tracts were low-income tracts due to the Great Recession's effects.

Combining LI and LA tracts results in increases in the number of LILA tracts across all four measures.

- Using the 1- and 10-mile definition, there was a net increase of 286 LILA tracts in 2015 (out of a total of 72,531 populated census tracts).
- Using the 0.5- and 10-mile definition, there was a net increase of 742 LILA tracts in 2015.
- Using the 1- and 20-mile definition, there was a net increase of 349 LILA tracts in 2015.
- Using the LILA Vehicle Access and 20-mile definition, there was a net increase of 412 new LILA tracts in 2015.

Number of low-income and low-access (LILA) census tracts, 2010 and 2015



Source: Calculated by USDA, Economic Research Service using 2010 Decennial Census data and the 2010-2014 American Community Survey data.

How Was the Study Conducted?

Updated estimates of LILA census tracts use a list of supermarkets, supercenters, and large grocery stores from 2015. This list is generated from two independent directories of stores—TDLinx (a proprietary source) and from stores authorized to accept Supplemental Nutrition Assistance Program (SNAP) benefits. Data on income and vehicle access are from the 2010-2014 American Community Survey. Population data are from the 2010 Decennial Census. Methods for estimating supermarket access for the U.S. population and aggregating these estimates to census tracts are similar to those used in Ver Ploeg et al. (2012) and as published in the Food Access Research Atlas (ERS, 2013). Because census tract boundaries in this report are similar to those used in the previous version of the FARA, the new 2015 estimates can be compared to 2010 estimates to understand which tracts changed low-income or low-access status or both between years. The FARA mapping tool has also been updated with the estimates of access used in this report and with contextual data on access for population subgroups by age, race, Hispanic ethnicity, income, and SNAP participation status.