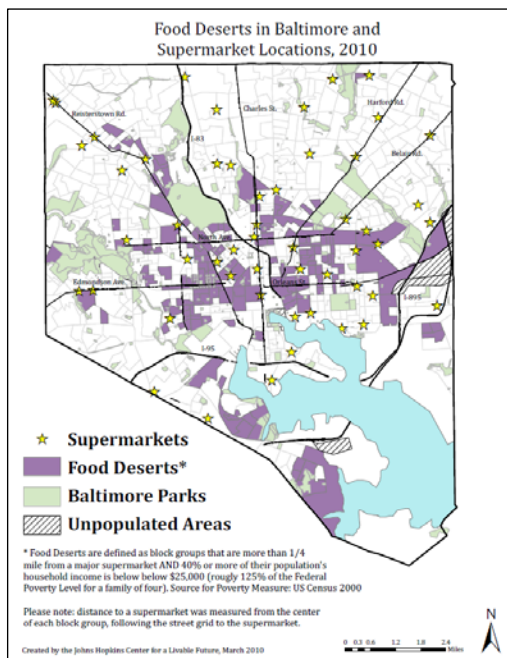


CLF's Maryland Food System Mapping Project

Food Deserts in Baltimore

The term “food desert” has been increasingly utilized in the past three to four years to describe areas that do not have easy access (within walking distance in cities or a reasonable driving distance in rural areas) to healthy foods, typically in the form of a supermarket. This map is our first attempt at identifying and illustrating food deserts in Baltimore.

In urban areas, “food desert” also implies that the area is low income, such that the residents do not own or have easy access to a vehicle and so access to healthy foods must be within reasonable walking distance. Our definition of a “food desert” applies both the walking distance criteria and whether the area is low income, as is noted on the map.



The typical walking distance that is considered is one mile, however, we believe one mile is actually too far. In the planning field, the distance most often cited as acceptable walking distance to public transportation is 1/4 mile. Bearing this in mind, if people are typically willing to walk only 1/4 mile to public transit, would they walk further for a supermarket, considering that they will have to walk home with bags of groceries? Thus, we chose to use 1/4 mile as our walking distance measure.

As a proxy for lack of vehicle ownership and to identify low income areas, we used household income at or below \$25,000 ([2000 US Census](#)). The Census does provide information on vehicle ownership, however, we chose to use income because we feel that it is a more accurate measure of food insecurity. In addition, there may be wealthy city dwellers that

choose not to own a car, skewing the statistics of vehicle ownership, making them a poor proxy for low income areas.

The distance measure to supermarkets was calculated using a Network Analysis in ArcInfo ([ESRI mapping software](#)). The analysis measured the distance from the center of each block group to the nearest supermarket, along the street grid. This provides a fairly accurate measurement by using the street grid, to take into account how people actually travel (even if walking). Without using the street grid, the measurement would have been a straight line from A to B, through buildings or across highways. Taking this into consideration and the fact that the center of a block group does not represent all locations within the group, our map shows supermarkets that appear to be within a block group. As a result, this might actually be the case, but the center of the block group was found to be more than 1/4 mile from the supermarket. Thus, parts of the block group are in fact farther than a 1/4 mile, while other parts are closer.

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NOTE: This is our first attempt at defining and illustrating food deserts in Baltimore. We feel that the total food environment should be considered, including convenience stores, corner stores, fast food restaurants, farmers markets, and community gardens. We have collected data on these locations in our mapping project, but are still working on developing a more complex definition of a food desert that takes them into account. A new term has been introduced that points out the fact that it is not only the lack of healthy food options, but the overabundance of unhealthy food options – “food swamps.” Considering the concentration of low quality food stores found in our previous map (see “Baltimore Food Stores and Poverty”), there may in fact also be food swamps in Baltimore. We will continue to explore this phenomenon.