The Political Implications of “Food Desert” Mapping
A Case Study Comparing the Political and Social Implications of USDA Versus Local “Food Desert” Definitions in the State of Maryland and City of Baltimore

Introduction
In assessing a community’s access to healthy food and risk for diet-related diseases, the classification of a “food desert” has become the standard method of analysis. The USDA’s Food Access Research Atlas classifies US communities at the census tract level as qualifying “food deserts” based on income and supermarket accessibility measures, a seemingly objective qualification that has come to hold significant political implications for the actual people living in these tracts. Since 2010, USDA-defined food desert areas have received support to improve their food environments through the nation-wide Healthy Food Financing Initiative. However, academics and localities have begun to critique the USDA’s methods for defining food deserts. In 2012, the U.S. Conference of Mayors Food Policy Task Force asserted that the USDA’s definition “does not capture the reality of limited access we have found in many of our cities.” Local leaders such as those in the Baltimore Food Policy Initiative have proposed alternative methodologies they argue are more accurate in mapping low healthy food access and high diet-related disease risk areas within their communities. While the controversy between methodologies has been widely discussed, the political and social implications for the resulting different maps have not been assessed. This analysis utilizes both USDA and local definitions of “food desert” areas to compare the resulting demographic profiles of “food desert” populations, investigate a local definition’s ability to account for its community’s health patterns, and explore the political implications for communities with the highest diet-related disease rates that are or are not accounted for in these contrasting definitions of low healthy food access.

Methodology
The state of Maryland and city of Baltimore were chosen as the case study areas for this analysis to allow for both rural and urban analysis as well as usage of a local methodology determined by its own policy makers. For the USDA definition, classification of tracts as food deserts or not food deserts was downloaded from the USDA Food Access Research Atlas. American Community Survey data was downloaded for block group and census tract demographics. Layers for each component of the local definition were created by selecting for the attribute benchmark detailed in the chart below, followed by the intersection of these three layers. The benchmarks for each attribute were chosen based on review of urban planning literature and the Baltimore Food Policy Initiative’s chosen mapping benchmarks appropriate to their local reality. An intersect was performed between the USDA and locally-defined food desert layers to identify block groups included in both definitions, only the USDA definition, or only the local definition. For each definition, demographic profiles of the populations classified as living in food deserts were constructed, shown in the large results table. The two definitions’ food desert classifications were then overlaid onto state and city demographics and diabetes rates. For Baltimore, the Baltimore community-level social health indicators were used against the percentage of that community’s population living in a locally-defined food desert block group.

Results
The significant demographic differences between USDA and locally-defined food desert populations show how large the political and social implications of these definitions are. As shown by the racial and health indicator overlays as well as substantial food justice literature, the populations facing the highest diet-related disease rates and lowest healthy food access (nationally as well as in this study area) are black, Hispanic, and low socioeconomic status communities. As shown in Johns Hopkins 2013 study (graphic below), race supersedes income, place, and food store type in determining access to healthy food. The substantial under-inclusivity of minority and urban low income residents in USDA-defined food desert therefore means that the very populations with the greatest need for food access support are being politically prevented from qualifying for such support. Action must be taken both to accurately map food access based on locally-determined measures and to allow these on-the-ground definitions to have the political power to bring resources to those populations most needing them.

Conclusions

Food Desert Definition Overlays On Racial and Health Data