

## **ABSTRACT**

Adequate access to healthy food is often considered a basic human right and ensuring that all communities have equal access to healthy food options has emerged as a focus of environmental justice activists and public policy in the United States. Increased attention and interest in locating food deserts over the last decade has resulted in many attempts at identifying areas with insufficient access to healthy foods. Many researchers and agencies have developed specific measures of food access, but these measures and indicators have not been compared methodically in terms of food desert locations identified or populations affected. This study examines and compares how varying the definition of ‘food desert’ impacts the extent of food desert geographies using three of the most common food desert methodologies centered around proximity, variety and competition. The results illustrate that the areas of the Phoenix-Mesa Urban Area that are classified as food desert differ depending on the methodology being used. This study shows that anywhere from 6% - 80% of the 562 low income block groups in the Phoenix-Mesa Urban Area can be designated as food deserts and the population residing in these areas with poor access to healthy food is estimated to be anywhere from 25,000 to 233,000 residents. In spite of this wide range, the geographic overlap was high with all three methodologies. The findings illustrate a need for clearer definitions regarding conceptual differences when measuring food access.