

Theme - Livability

Sub Theme - Health & Nutrition

Indicator - Food Deserts

Food deserts are correlated with low-income neighborhoods, health and nutrition deficiencies, and fast food restaurants. According to the Centers for Disease Control and Prevention (CDC), food deserts are defined as 'areas that lack access to affordable fruits, vegetables, whole grains, lowfat milk, and other foods that make up the full range of a healthy diet' (Centers for Disease Control and Prevention, 2012). The CDC also states that there is no standard definition of food desert, however the US Department of Agriculture (USDA) defines a food desert as a census tract more than 1 mile from a supermarket with at least \$2 million in annual sales (urban definition), and that at least 20% of the people living there are poor (US Department of Agriculture, 2012). This report uses the definition of any area more than 1 mile from a grocery store selling fresh fruits and produce as being in a food desert. The reason is because some small stores also sell produce that meet the CDC's definition and also some areas that are not necessarily poor, but are not within a mile to supermarkets will not be covered by the USDA definition.

Texas has the lowest number of supermarkets per capita in comparison to other states in the country (Manon, Giang, & Treering, 2010). The economic model that finds it strategic to locate a fast food store in a food desert is clearly different from the model that is used to locate grocery stores. Low income persons have to shop more frequently for retail items since they do not have enough stored wealth or storage space to stock up on consumer goods. Recently there has been an emergence of several Farmer's Markets across the city (Turner, 2012). The increase of Farmer's Markets suggests that there is a local demand, which traditional grocery stores are not meeting. There are also reportedly more than 125 community and school gardens across the city (Blackburn, 2011).

Sustainability Benefit: The Food Desert in Houston is getting smaller.

Sustainability Issue: More than 700,000 people in Houston do not live within a mile of a grocery store selling fresh fruits and vegetables.

Indicator Groups: Food deserts among Super Neighborhoods in Houston was measured by a comparison of the Percentage of population in food deserts in each Super Neighborhood. This metric is part of the second most significant group of indicators in the study. This group of indicators is titled 'Inner City Group' since it is composed of the following indicators: **Vehicle Miles Travelled, Street Intersection Density, Percent of open Space, Population close to parks, Housing units close to business centers, Poor Streets, High development land use, population close to bus stops, Population in food deserts (Vehicle miles travelled and Percent of open space are negatively related).**

The following metrics are used to measure the indicator *Food Deserts*:

Figure 19: Houston Food Desert 2010

Figure 18: Percent of population in food desert

Ranking of Super Neighborhoods by the percentage of persons living in a food desert			
1	SETTEGAST	45	MEDICAL CENTER AREA
2	MINNETEX	46	SPRING BRANCH WEST
3	FONDREN GARDENS	47	WILLOW MEADOWS / WILLOWBEND AREA
4	KINGWOOD AREA	48	GREATER HEIGHTS
5	HUNTERWOOD	49	GREATER UPTOWN
6	IAH / AIRPORT AREA	50	BRAYS OAKS
7	HIDDEN VALLEY	51	SPRING BRANCH EAST
8	EL DORADO / OATES PRAIRIE	52	NORTHSORE
9	CLINTON PARK TRI-COMMUNITY	53	NORTHSIDE/NORTHLINE
10	ACRES HOME	54	KASHMERE GARDENS
11	LAKE HOUSTON	55	UNIVERSITY PLACE
12	ADDICKS PARK TEN	56	BRAEBURN
13	WESTBRANCH	57	MEMORIAL
14	CENTRAL SOUTHWEST	58	LAZY BROOK / TIMBERGROVE
15	GREATER HOBBY AREA	59	WILLOWBROOK
16	MACGREGOR	60	FAIRBANKS / NORTHWEST CROSSING
17	GREATER INWOOD	61	EASTEX - JENSEN AREA
18	WASHINGTON AVENUE COALITION / MEMORIAL PARK	62	SPRING BRANCH CENTRAL
19	SOUTH ACRES / CRESTMONT PARK	63	GULFTON
20	ELDRIDGE / WEST OAKS	64	ALIEF
21	SUNNYSIDE	65	LAWNDALE / WAYSIDE
22	EAST LITTLE YORK / HOMESTEAD	66	INDEPENDENCE HEIGHTS
23	EAST HOUSTON	67	CENTRAL NORTHWEST
24	DENVER HARBOR / PORT HOUSTON	68	OST / SOUTH UNION
25	FORT BEND / HOUSTON	69	WESTCHASE
26	WESTBURY	70	DOWNTOWN
27	SHARPSTOWN	71	AFTON OAKS / RIVER OAKS AREA
28	HARRISBURG / MANCHESTER	72	WESTWOOD
29	CLEAR LAKE	73	GULFGATE RIVERVIEW / PINE VALLEY
30	GREATER THIRD WARD	74	PARK PLACE
31	SOUTH BELT / ELLINGTON	75	BRIARFOREST AREA
32	TRINITY / HOUSTON GARDENS	76	GREATER EASTWOOD
33	MEADOWBROOK / ALLENDALE	77	FOURTH WARD
34	NORTHSIDE VILLAGE	78	MEYERLAND AREA
35	CARVERDALE	79	SPRING BRANCH NORTH
36	GREATER FIFTH WARD	80	MUSEUM PARK
37	GREATER GREENSPOINT	81	NEARTOWN - MONTROSE
38	MAGNOLIA PARK	82	PECAN PARK
39	SOUTH MAIN	83	MID WEST
40	LANGWOOD	84	EDGEBROOK AREA
41	PLEASANTVILLE AREA	85	BRAESWOOD PLACE
42	GOLFCREST / BELLFORT / REVEILLE	86	ASTRODOME AREA
43	SOUTH PARK	87	Greenway/ Upper Kirby Area
44	SECOND WARD	88	Midtown



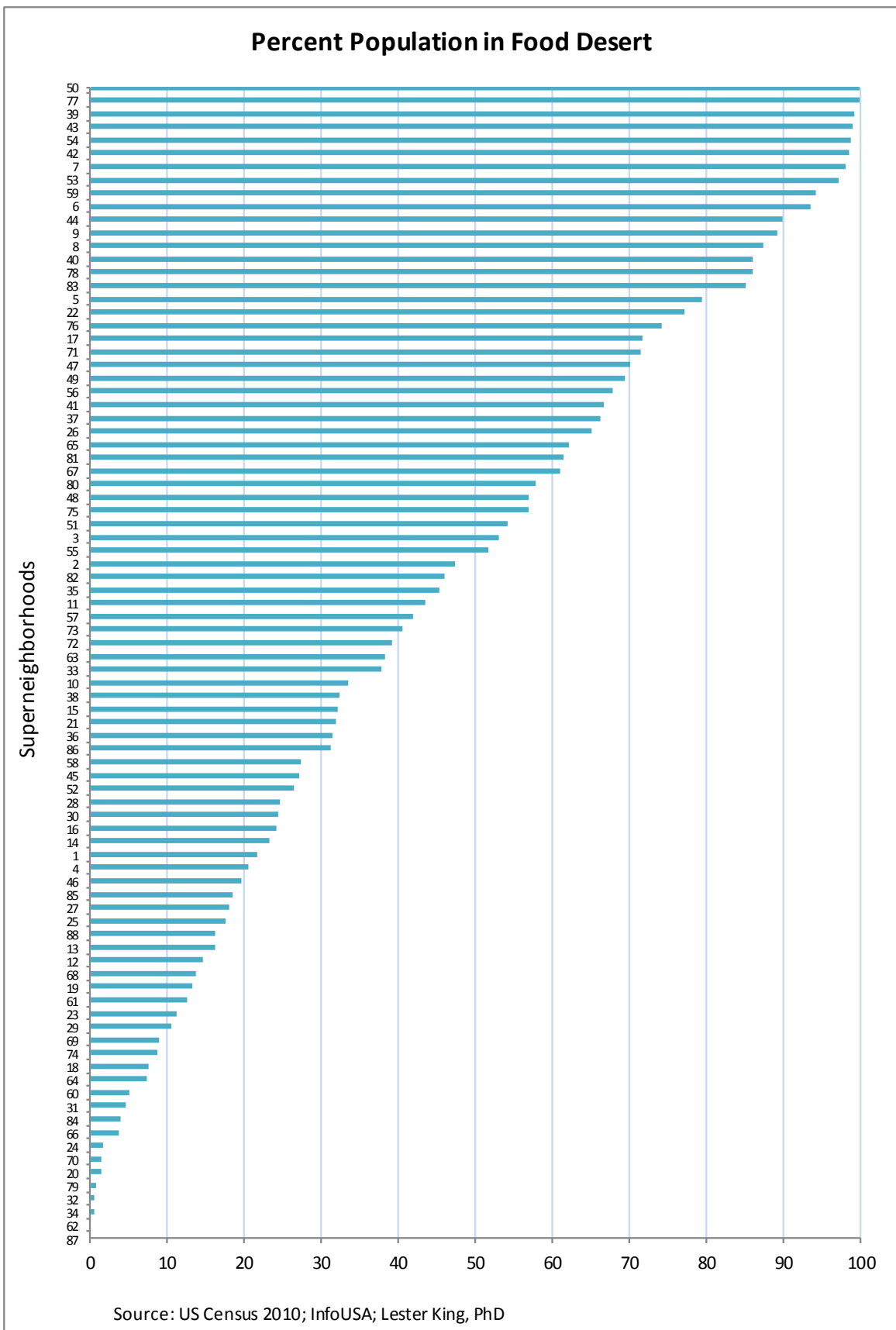
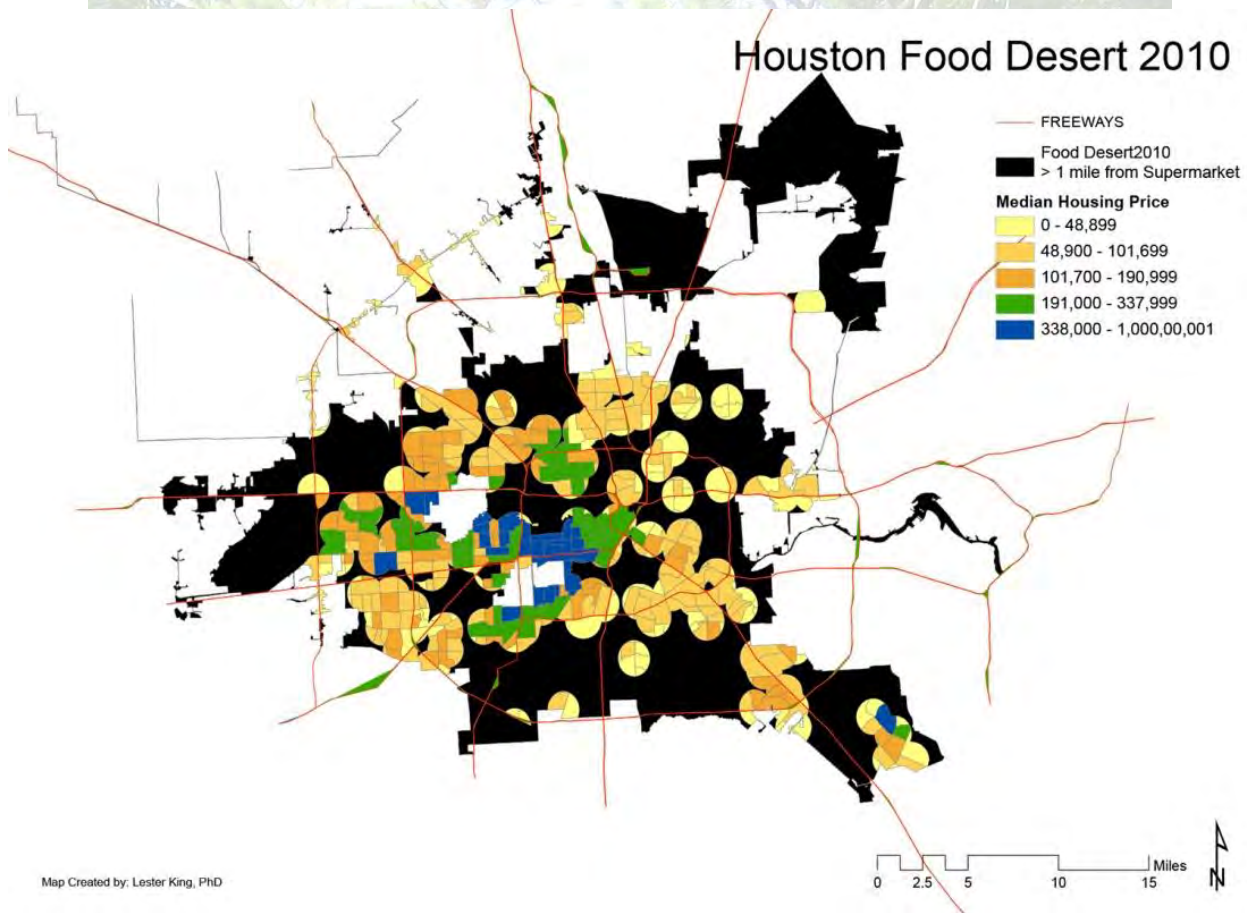


Figure 18: Percent of population in food desert

- The figure above shows that neighborhoods in Houston affected by food deserts range from 0% affected in Greenway/ Upper Kirby Area and the Midtown Super Neighborhood communities to more than 95% of the population being in food deserts in the neighborhoods of El Dorado/ Oates Prairie, Hidden Valley, Airport Area, Hunterwood, Kingwood, Fondren Gardens, Minnetex and Settegast.



Source: Highways, City outline by City of Houston. Address locations of supermarkets by InfoUsa. Calculation of Food Desert by author.

Figure 19: Houston Food Desert 2010

- In 2010 there were about 750,000 persons living in a food desert accounting for 36% of the population. This is a big decrease in the number of food deserts compared to previous years.
- In the south central portion of the city, between Highway 288 and Interstate 45-South, the food desert continues to exist when comparing data from 1990 to 2010. This area is known as the Greater Third Ward neighborhood and is home to University of Houston and Texas Southern University.
- Some of the 1-mile regions around supermarkets show that the median housing value is under \$50,000, therefore the food deserts in Houston cannot be explained by lower income levels alone.