Food Environment

Level: Census Tract Level

Definition: The food environment is: 1) The physical presence of food that affects a person's diet; 2) A person's proximity to food store locations; 3) The distribution of food stores, food service, and any physical entity by which food may be obtained, or 4) A connected system that allows access to food. (Source: https://www.cdc.gov/healthyplaces/healthtopics/healthyfood/general.htm). Data included here concern: 1) Food access; and 2) Liquor access.

Dataset Version : 1.1

Dataset Release History: First published 2017

Initial Release : 01/03/2017

Data set Name: Neighborhood_Food_Environment_Census_Tract_Level.csv

Sources: Data Driven Detroit, Data Driven Detroit, Reference USA, State of Michigan, Centers for Disease Control and Prevention

Other Notes:
- Spatial Coverage for most data: 10-county Detroit-Warren-Ann Arbor Combined Statistical Area, Michigan, USA. See exception for grocery store data below.

Variables	Description	Year	Notes
Identifier			
GEOID10	Census Tract ID	2010	
CountyCode	County Code	2010	
CountyName	County Name		
Food Access			
Food_Desert_Tot_Pop	Number of people	2011	Downloaded from the United States Department of Agriculture (USDA), Economic Research Service-Food Access Research Atlas. Note: to qualify as a food desert tract, at least 33 percent of the tract's population or a minimum of 500 people in the tract must have low access to a supermarket or large grocery store. http://www.ers.usda.gov/dataFiles/Food_Access_Research_Atlas/Download_the_Data/Archived_Version/archived_documentation.pdf

Variables	Description	Year	Notes
			Spatial Extent: 10-county Detroit-Warren-Ann Arbor Combined Statistical Area. Note: Missing data are marked as "NULL". In this dataset, any census tract that has not been designated as a Food Desert tract has missing data and is marked as "NULL."
Food_Desert_Pct_Lowa_Pop	Percentage of people with low access to a supermarket or large grocery store	2011	
Food_Desert_lowa_Pop	Number of people with low access to a supermarket or large grocery store	2011	
Food_Desert_Pct_Lowi	Percentage of total population that is low-income and has low access to a supermarket or large grocery store	2011	
Food_Desert_Lowi	Number of low-income people with low access to a supermarket or large grocery store	2011	
Food_Desert_Pct_Hunv	Percentage of housing units without a vehicle with low access to a supermarket or large grocery store	2011	
Food_Desert_Hunv	Number of housing units without a vehicle with low access to a supermarket or large grocery store	2011	
Food_Desert_Pct_Kids	Percentage of children age 0-17 with low access to a supermarket or large grocery store	2011	
Food_Desert_Kids	Number of children age 0-17 with low access to a supermarket or large grocery store	2011	
Food_Desert_Pct_Seniors	Percentage of people age 65+ with low access to a supermarket or large grocery store	2011	
Food_Desert_Seniors	Number of people age 65+ with low access to a supermarket or large grocery store	2011	
Food_Desert_mrfei	Modified Retail Food Environmental Index = (# Healthy Food Retailers/(# Healthy Food Retailers + # of Unhealthy Food Retailers))	2011	Downloaded from the Centers for Disease Control and Prevention. For more information on this indicator, see: ftp://ftp.cdc.gov/pub/Publications/dnpao/census-tract-level-state-maps-mrfei_TAG508.pdf Spatial Extent: 10-county Detroit-Warren-Ann Arbor Combined Statistical Area.
Spatial_Measures_grocerystore_Density	Full-Line Grocery stores - Kernel Density by census tract	2016	Full-line grocery stores are stores "selling fresh produce, fresh meat, fresh bread, and fresh dairy" (Michigan Department of Agriculture & Rural Development, 2012). This measure was based on on a list of grocery stores that was compiled based on a Michigan Department of Agriculture & Rural Development (MDARD) FOIA request for information about all stores licensed to sell food in the

Variables	Description	Year	Notes
			7-county area. This list was then verified using a procedure for verification using Google Streetview and telephoning of a subset of stores. Calculated using ArcMap software's Kernel Density Tool using Zonal Statistics. Radius setting =1320 feet. Spatial extent: Livingston, Macomb, Monroe, Oakland, St. Clair, Washtenaw, and Wayne counties.

Spatial_Measures_fastfood_density	Fast food stores- Kernel Density by census tract	2015	Average distance computed based on 2015 Reference USA Data. Organizations selected if they had either a:
			
			• Primary NAICS Code of one of:
			  • 722211 Limited-service restaurants
			  • 722513 Limited-Service Restaurants
			  • 722515 Snack and Nonalcoholic Beverage Bars
			  • 722213 Snack and nonalcoholic beverage bars
			
			Or
			
			• Primary SIC Code of one of:
			  • 581205 – Hamburger and Hot Dog Stands
			  • 581206 – Foods, Carry-out
			  • 581209 – Delis
			  • 581213 – Cafeterias
			  • 581214 – Cafes
			  • 58215 - Box Lunches
			  • 581219 - Sandwiches
			  • 581222 - Pizza
			  • 581228 – Coffee shops
			  • 581203 Ice Cream Parlors
			  • 581218 Soda Fountain Shops
			  • 581221 Refreshment Stands
			
			The following keywords were also used to identify establishments:
			
			  • Coney Island
			  • Pizzeria
			  • Pizza

Variables	Description	Year	Notes
			- Cafe
			- Burgers
			- Subs
			- Donuts
			- Espresso
			- Coffee
			- 7-Eleven
			- A&W
			- America's Taco Shop
			- Arby's
			- Au Bon Pain
			- Auntie Anne's
			- Back Yard Burgers
			- Baja Fresh
			- Baja Fresh Mexican Grill
			- Baker's Drive-Thru
			- Baskin Robbins
			- Ben & Jerry's
			- Benihana
			- Blimpie
			- Boca Grande
			- Bojangles'
			- Boston Market
			- Box Lunch
			- Braum's
			- Brown's Chicken & Pasta
			- Burger King
			- Burgerfi
			- Burgerville
			- Byron's
			- Captain D's
			- Carl's Jr.
			- Carney's
			- Carvel
			- Checkers / Rally's
			- Cheeburger Cheeburger
			- Chicken Express
			- Chick-Fil-A
			- China Express
			- Chipotle
			- Chipotle Mexican Grill

Variables	Description	Year	Notes
			- Church's Chicken - Cinnabon - Clarke's Standard - Cold Stone Creamery - Cosi Sandwiches - Cousins Subs - Cracker Barrel - Culver's - Cupid's Hot Dogs - Dairy Queen - Del Taco - Der Wienerschnitzel - Dickey's BBQ Pit - Domino's Pizza - Dominos Pizza - Duchess - Dunkin' Donuts - Einstein Bros. Bagels - El Pollo Loco - Elevation Burger - Farmer Boys - Fatburger - Filiberto's - Firehose Subs - Five Guys - Five Guys Burgers and Fries - Fosters Freeze - Freddy's - Freddy's Frozen Custard & Steakburgers - Friendly's - Fuddruckers - Godfather's Pizza - Gold Coast - Golden Chick - Golden Corral H. Salt Fish & Chips - Hard Rock Cafe - Hardee's - Hardees - Hong Kong Express - Hungry Howie's

Variables	Description	Year	Notes
			- Imo's Pizza - In-N-Out - In-N-Out Burger - Jack in the Box - Jamba Juice - Jason's Deli - Jersey Mike's Subs - Jet's Pizza - Jimmy John's - Joe's Crab Shack - Johnny Carino's - Johnny Rockets - Kentucky Fried Chicken - KFC - Kneaders Bakery & Cafe - Kona Ice - Koo Koo Roo - Krispy Kreme - Krystal - La Salsa - Lee's Famous Recipe Chicken - Lenny's Burger - Lion's Choice - Little Caesars - Logan's Roadhouse - Long John Silver's - LongHorn Steakhouse - Marble Slab - Marble Slab Creamery - Marco's Pizza - McAlister's Deli - McDonald's - Menchie's Frozen Yogurt - Mighty Taco - Moe's Southwest Grill - Nathan's Hot Dogs - Noodles & Company - Ono Hawaiian BBQ - Pals Sudden Service - Panda Express - Panera Bread

Variables	Description	Year	Notes
			- Papa John's - Papa John's Pizza - Papa Murphy's Take-n-Bake Pizza - Perkins Restaurant & Bakery - Pioneer Chicken - Pizza Hut - Pizza Man - Pollo Campero - Pollo Tropical - Popeyes - Popeye's Chicken - Popeye's Chicken & Biscuits - Port of Subs - Portillos - Pot Belly's Subs Enstein - Potbelly Sandwich Shop - Pretzel Peddler - Qdoba - Quiznos - Rainforest Cafe - Raising Canes - Red Robin Gourmet Burgers - Riley's Roast Beef - Romano's Macaroni Grill - Round Table Pizza - Rubio's - Rubio's Fresh Mexican Grill - Ruby Tuesday - Schlotzsky's - Sidney's Chicken - Skippers Seafood & Chowder - Skyline Chili - Someburros - Sonic - SONIC Drive-Ins - Spangles - Steak 'n Shake - Subway - Subway - Taco Bell - Taco Bueno

Variables	Description	Year	Notes
			- Tacos Mexico - Ted's Hot Dogs - The Cheesecake Factory - The Green Burrito - The Habit Burger Grill - The Original - Tim Horton's - Tim Hortons - Togos - Togo's Eatery - Tommy's - Varsity - Waffle House - Wendy's - Whataburger - Which Wich - White Castle - Wienerschnitzel - Winchell's Donuts - Wingstop - Yoshinoya - Zankou - Zaxby's Reference USA data downloaded from on November 15, 2015. Calculated using ArcMap software's Kernel Density Tool using Zonal Statistics. Radius setting =1320 feet. Spatial Extent: 10-county Detroit-Warren-Ann Arbor Combined Statistical Area.
Spatial_Measures_grocerystore_Distance	Full-Line Grocery stores - Average Distance by census tract	2016	Full-line grocery stores are stores "selling fresh produce, fresh meat, fresh bread, and fresh dairy" (Michigan Department of Agriculture & Rural Development, 2012). This measure was based on on a list of grocery stores that was compiled based on a Michigan Department of Agriculture & Rural Development (MDARD) FOIA request for information about all stores licensed to sell food in the 7-county area. This list was then verified using a procedure

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			for verification using Google Streetview and telephoning of a subset of stores. Calculated using ArcMap software's Euclidean Distance Tool using Zonal Statistics. Radius setting =1320 feet. Spatial extent: Livingston, Macomb, Monroe, Oakland, St. Clair, Washtenaw, and Wayne counties.
Spatial_Measures_fastfood_Distance	Fast food stores - Average Distance by census tract	2015	Kernel Density computed based on 2015 Reference USA Data. Data were selected based on the same NAICS codes, SIC codes and keywords as above. Reference USA data downloaded from on November 15, 2015. Calculated using ArcMap software's Euclidean Distance Tool using Zonal Statistics. Radius setting =1320 feet. Spatial Extent: 10-county Detroit-Warren-Ann Arbor Combined Statistical Area.
Liquor			
Spatial_Measures_Liquor_Density	Liquor Licenses - Kernel Density by census tract	2015	Kernel Density computed based on 2015 Active Liquor Licenses data from the State of Michigan, Department of Licensing and Regulatory Affairs (LARA). Michigan Liquor Control Commission (MLCC). Data obtained in June 2015. Calculated using ArcMap software's Kernel Density Tool using Zonal Statistics. Radius setting =1320 feet. Spatial Extent: 10-county Detroit-Warren-Ann Arbor Combined Statistical Area.
Spatial_Measures_Liquor_Distance	Liquor Licenses - Average Distance by census tract	2015	Average distance by census tract computed based on 2015 Active Liquor Licenses data from the State of Michigan, Department of Licensing and Regulatory Affairs (LARA). Michigan Liquor Control Commission (MLCC). Data obtained in June 2015. Calculated using ArcMap software's Euclidean Distance Tool using Zonal Statistics. Radius setting =1320 feet.

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