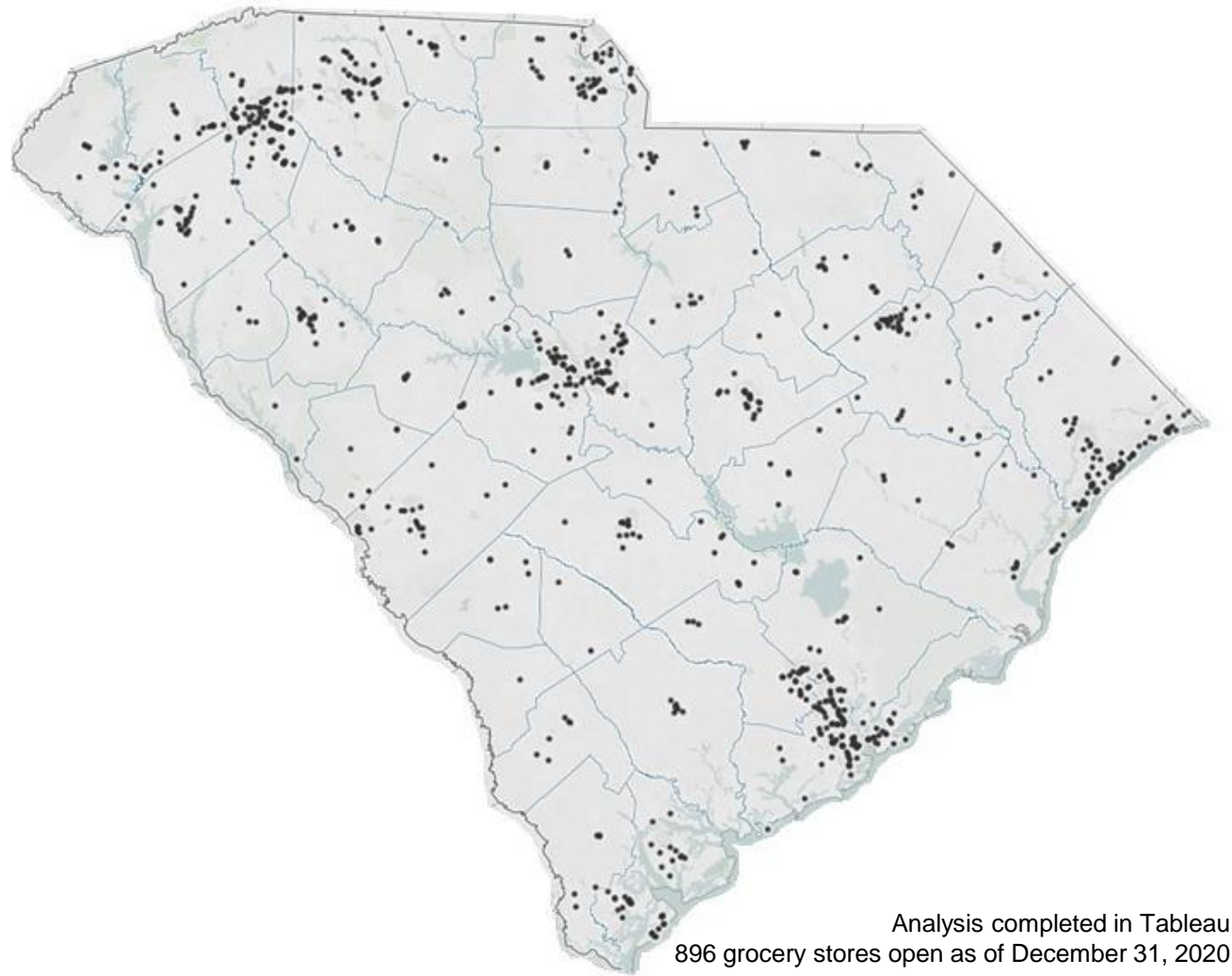


# Examining Racial and Ethnic Group Composition and Availability of Grocery Store Outlets by Geography in South Carolina

By: Allyson Malbouf &  
Melinda A. Merrell, PhD, MPH



Analysis completed in Tableau  
896 grocery stores open as of December 31, 2020

UNIVERSITY OF  
**South Carolina**

Arnold School of Public Health

# METHODS

- Analysis of grocery stores: Data Axle Solutions
  - Included: supermarkets, warehouse clubs, superettes, ethnic food stores, organic options
  - Excluded: convenience stores, gas stations, meat markets, fruit & vegetable markets, wholesalers
- Demographic data: American Community Survey (ACS) 2015-2019
- Rural-Urban Commuting Area (RUCA) Codes to define geography

# RESULTS

Table 1

Demographic Characteristics	South Carolina
Number of Census Tracts	1091
Number of Grocery Stores	896
Racial/Ethnic Composition	
White	67.2%
Black/African American	26.8%
Hispanic or Latino	5.7%

\* $p < 0.05$

Table 2

Number of Grocery stores in Census Tract	No Stores (n=564 tracts)	Very Few (1) (n=305)	Some (2-4) (n=207)	High (5-7) (n=15)
% white population	65.8%	65.7%	64.1%	71.0%
% Black/African American population	28.8%	28.5%	29.7%	20.9%
% Hispanic/Latino population *	5.2%	5.3%	6.0%	9.5%
Urban	41.2%	22.0%	15.0%	1.4%
Large Rural	7.3%	4.1%	2.6%	0%
Small Rural	1.4%	1.6%	0.8%	0%
Isolated	1.0%	0.3%	0.6%	0%

\* $p < 0.05$

# RESULTS

Table 3

Tracts with Zero Stores*	
Urban	81.2%
Large Rural	14.2%
Small Rural	2.7%
Isolated	2.0%

\* $p < 0.05$

Table 2

Number of Grocery stores in Census Tract	No Stores (n=564 tracts)	Very Few (1) (n=305)	Some (2-4) (n=207)	High (5-7) (n=15)
% white population	65.8%	65.7%	64.1%	71.0%
% Black/African American population	28.8%	28.5%	29.7%	20.9%
% Hispanic/Latino population *	5.2%	5.3%	6.0%	9.5%
Urban	41.2%	22.0%	15.0%	1.4%
Large Rural	7.3%	4.1%	2.6%	0%
Small Rural	1.4%	1.6%	0.8%	0%
Isolated	1.0%	0.3%	0.6%	0%

\* $p < 0.05$

# DISCUSSION

- A high number of grocery stores by Census tract is associated with a higher percentage of Hispanic and Latino racial/ethnic composition compared to Census tracts with fewer stores.
- There are more urban census tracts that have zero grocery stores across the state.

# THANKS!

Allyson Malbouf  
HSPM Candidate 2021  
amalbouf@email.sc.edu

Melinda A. Merrell, PhD, MPH  
Research Assistant Professor  
mmerrell@mailbox.sc.edu



**Arnold School of  
Public Health**