

+ AAG 2015 Chicago







Assessing the Impact of Small-Format Retailers on the Food Desert Landscape of Dallas, Texas

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+ Introduction

- Contemporary health challenges often relate to the availability of healthy food, especially in large urban areas
- Gaps in healthy food coverage = "food deserts"




+ Introduction

- Food deserts have a large literature, but the literature has important gaps
 - 1. Needs to consider small-format retailers more seriously
 - Important gap due to recent shifts in food retailing industry
 - 2. Typically does not look at product selection within stores
 - Do small stores actually provide a good selection of healthy food items?




+ Introduction



- Research is needed to examine the degree to which small-format retailers can play an important role in addressing food deserts
 - Small-format store geographic distribution
 - Small-format store food product offerings




+ Dallas Case Study

+ Dallas

- Dallas is suitable for this research because it is home to one of the largest food desert clusters in the United States (USDA)

+ Dallas Study Area

- City of Dallas, Texas (portion within Dallas County)
- 23% of the city's population lives below the US poverty level

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- City of Dallas, Texas (portion within Dallas County)
- 23% of the city's population lives below the US poverty level
- The southern sector of Dallas is particularly characterized by poverty

+ USDA-Defined Food Deserts

- 63 census tracts (22.5% of city) meet the USDA food desert criteria
- About 276,300 persons (22.6% of city pop.) live in these USDA food deserts

Methodology & Research Design:

+ Data, Research Questions

+ Data Used

- Store address and type data (City of Dallas)
- Field survey data (collected by Regan)
 - Products sold, by store
- Food product price data (USDA)
- Community data (American Community Survey, Synergos Technologies)
 - Census tract incomes, Neighborhood types (11 major geodemographic segments)

+ Basic Dallas Store Data

Store Types and Number of Stores in Dallas Study Area

Store Type	Number of Stores
Supercenters & Large Supermarkets	108
Small Grocers	49
Convenience Stores	189
Gas Stations	308
Drug Stores	63
Dollar Stores	71

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+ Fieldwork: Sampling

- Given 680 small-format food retailers, sampling was necessary
 - Selected 5 small-format stores located in each of 11 major neighborhood types (geodemographic segments) present in Dallas
 - 3 neighborhood types had < 4 stores
 - 5 stores declined to be surveyed (with no alternatives to survey in their neighborhood type)
 - **Final store sample: 40 small-format stores** (sample data applied to all store locations in Dallas)

+ Research Questions

- Do small-format grocery retailers provide for an affordable and balanced diet (based on the Thrifty Food Plan)?
- Do small-format grocery retailers make a difference in the geographic extent of food deserts?

+ Small-Format Stores: Food Product Affordability, Variety

- Looking for three conditions in small-format stores
 - **Food Affordability:** Price of sampled food is less than or equal to average national pricing
 - **Food Variety:** At least 3 products in each food category type offered.
 - **Combination:** Meeting both affordability and variety criteria

+ Small-Format Stores: Food Product Healthfulness

- Food Health Ratio (healthy:non-healthy)
Range for Each "Health Ratio" Category

Category	Ratio Range
1	0.75 and above
2	0.50 to 0.74
3	0.25 to 0.49
4	0.24 and below

+ Small-Format Stores: Food Product Healthfulness

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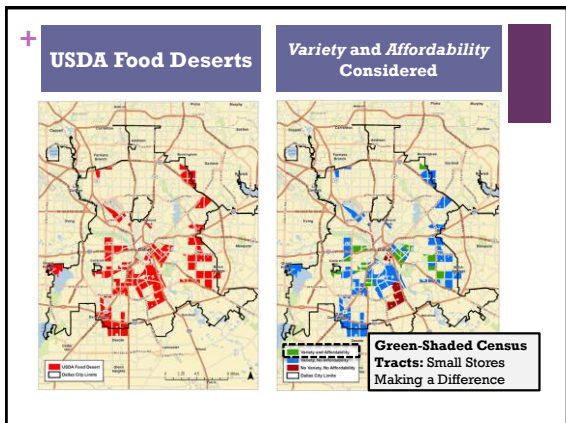
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4	0.24 and below

Category 4 = Unhealthy food store

+ Results

+ Sources of Affordable & Balanced Diets

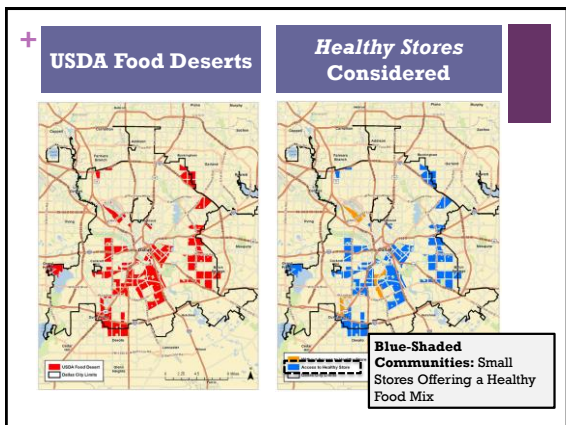
- Most stores carried a variety of food categories
- Key limitation is affordability



+ Sources of Healthy Foods

Distribution of Health Ratio Store Categories in the Major Neighborhood (Geodemographic) Types in Dallas

Neighborhood Type	Category 1	Category 2	Category 3	Category 4	Total
Crème de la Crème			46		46
Urban Cliff Climbers	3			4	7
Urban Cliff Dwellers	1			2	3
Thriving Alone	13			58	71
Going It Alone	5			8	13
Single in the Suburbs		6		12	18
Married in the Suburbs				2	2
Retired in the Suburbs			1		1
Harlem Gateway			37	108	145
Española		14	88	246	348
Specialties	2		9	15	26
Total	2	14	208	456	680



+ Discussion & Conclusion

+ Overall Points

- Small-format stores make a difference in Dallas' food deserts
- These stores are not enough to completely address the food desert issue, but they help
- Food deserts represent complex challenges, but this research is a step toward partial solutions

+ Applications

- **Public policy:** small, community retailers need to be in the food desert discussion along with large, national players
 - This study indicates these retailers can play a role in food desert alleviation
- **Business strategy:** national and global retailers should re-examine their store placement strategies
 - There may be profitable opportunities for more small-format store chains to provide healthful food options in inner-city communities

+ Thanks for
listening