

Assessing Healthy Food Access in Brooklyn Park



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Students in FDSY 4101: Holistic Approaches to Improving Food Systems Sustainability
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Prepared on Behalf of

City of Brooklyn Park
Police Department

Spring 2017



Resilient Communities Project

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The project on which this report is based was completed in collaboration with the City of Brooklyn Park as part of the 2016–2017 Resilient Communities Project (RCP) partnership. RCP is a program at the University of Minnesota’s Center for Urban and Regional Affairs (CURA) that connects University faculty and students with Minnesota communities to address strategic projects that advance local resilience and sustainability.

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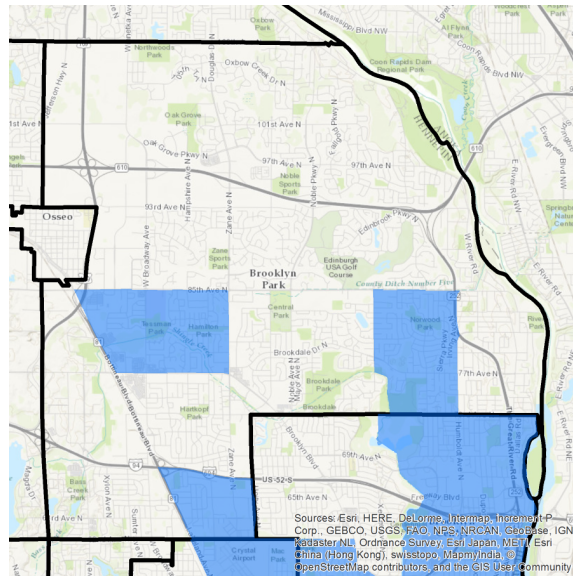
Introduction

The purpose of the project is to understand the barriers that exist between the communities in Brooklyn Park and a consistent source of nutritious food. By understanding the challenges that households have in accessing healthy food, we will be able to work towards finding solutions. Specifically, we decided to focus on grocery store access and pricing.

The specific objectives of this project were to:

- 1) Understand the implications of the variety, price, and quality of products in Brooklyn Park grocery stores on healthy food access.
- 2) Understand the challenges Brooklyn Park grocery store managers face to provide nutritious food to their customers so the City of Brooklyn Park can better serve them.
- 3) Increase the City of Brooklyn Park's overall understanding of residents' grocery shopping trends and challenges they face in accessing healthy food.

Previous work has shown a significant presence of food deserts within Brooklyn Park, but we aimed to put a magnifying glass on some of these issues to better understand the dynamics of food access.



A map of food deserts, represented in blue, from a previous RCP project with Brooklyn Park

Surveying Methods

To study grocery store quality and pricing, we implemented a project casing most of the grocery stores in Brooklyn Park. We used the following template to survey each grocery store. When possible, we'd interview customers, staff members or owners. This wasn't always possible, but we did summarize what we could find in the Qualitative Analysis portion. We did most of our surveying on the weekends and found that we were able to access people to interview than a previous researcher had encountered. Rachel Wood and Jesus Cuadrado did all of the casing surveys while Kate Kuehl joined in for the qualitative surveys, particularly at the international grocery stores. She also did the statistical analysis, computer programming, and analysis of previous surveys.

Time -
Store Number -
Exterior 1 2 3 4 5
Interior 1 2 3 4 5
Produce 1 2 3 4 5
\$ yellow onions -
\$ fresh herbs -
\$ apples -
\$ milk -
\$ eggs -
\$ flour -
\$ white rice -

Deli 1 2 3 4 5
Selection:
Deli \$ range -
International 1 2 3 4 5
Regions:
register open -
customers -

Notes:

The results of our data were entered into a [Google Sheets document](#).

Qualitative Observations

Grocery Store Observations

Through conversations with shop owners, customers and staff, we learned a lot about the operation and challenges they faced. One common theme we observed is that many of the small international markets do not meet the full grocery needs of their consumers. Often, consumers will shop at a store like Cub or Sun Foods to get the large staples they need, then get supplementary food from the small international markets that they are not able to find in the bigger stores.

One staff member from a small international market commented that the reason why consumers choose to shop at his store is that they can get foods from Africa through connections that the bigger stores are unable to get. As surveyors, we highly doubt these foods had gone through any regulatory inspection and met standards. However, the risk seemed fairly low due to adequate package and storage. One concern of ours is that if you started cracking down on these imports than the food would be produced in residents homes and exasperate the problem the city is already having with that issue. The analogy we choose is that if one day the government closed down every pizza shop in the US, there would very quickly be a black market for pizza; no one is going to stop eating pizza.

When we asked the owner of African Int'L Market Llc what the city could do to help him, he struggled to find an answer. Eventually, he said that he'd like to be able to put out more signs, but the city wouldn't allow him. While marketing is definitely important to his business, it seems like this was mentioned because it is his only real interaction with the city. An interesting aspect of this store was that they were more of a restaurant that served Ghanaian street food and the grocery store was a minority of their business. Some customers said they had traveled as far as 45 minutes to get this food. A few customers that came in filled large bags full of food from the restaurant that they would later freeze. There was a TV going with African news and many young men hanging

around the tables hanging out. This store seems to not just be a grocery store, or any old restaurant but serves as a community center for the Ghanaian community.

While talking to a staff member at Sun Foods, he remarked that only about 5% of their customers are white. Their customers that were POC tended to come into the store and out quickly; they knew what they wanted, and they just got what they needed at left. White customers, on the other hand, tended to wander throughout the isles looking for foods they've never tried before; they perhaps viewed the store more as an experience.

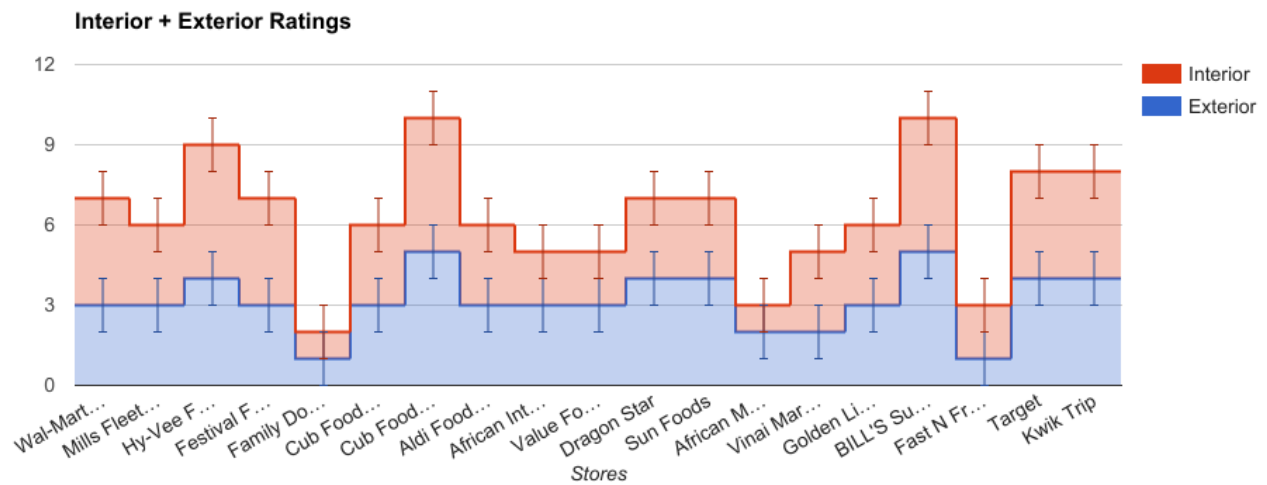
Outside Analysis

Using information from the [Hennepin County GIS Open Data Portal](#) we are able to make some interesting observations, such as that the current location of the farmers market is not close to any grocery stores. This might hit an unmet need, but from our qualitative observations, we saw that many immigrant families already had to travel to several grocery stores to get their groceries. Having a location that is separate from where they already go might introduce an additional burden. Further diving into the shopping patterns of immigrant communities and the customers of the grocery stores might yield useful insights into food access.

Statistical Analysis

Appearance

For analysis, we combined the values of both the interior and exterior of the building to give one overall value for the appearance of the store, which ranged from 2 to 10 points. The mean difference of the big vs small stores was 2.05 points. Excluding any significant biases from our surveyors, we are 98.6% confident that larger stores truly have better appearances, and that this isn't merely a statistical anomaly. Similarly, the mean difference of the conventional vs international stores was 1.35 points. We are 91.2% confident that conventional stores truly have better appearances.

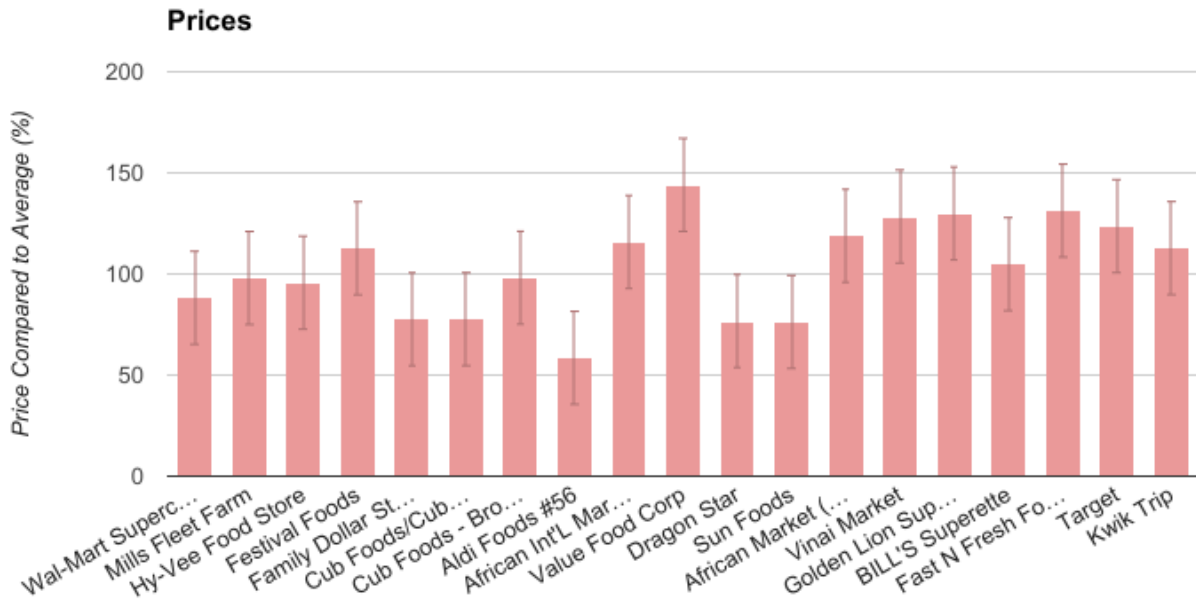


Prices

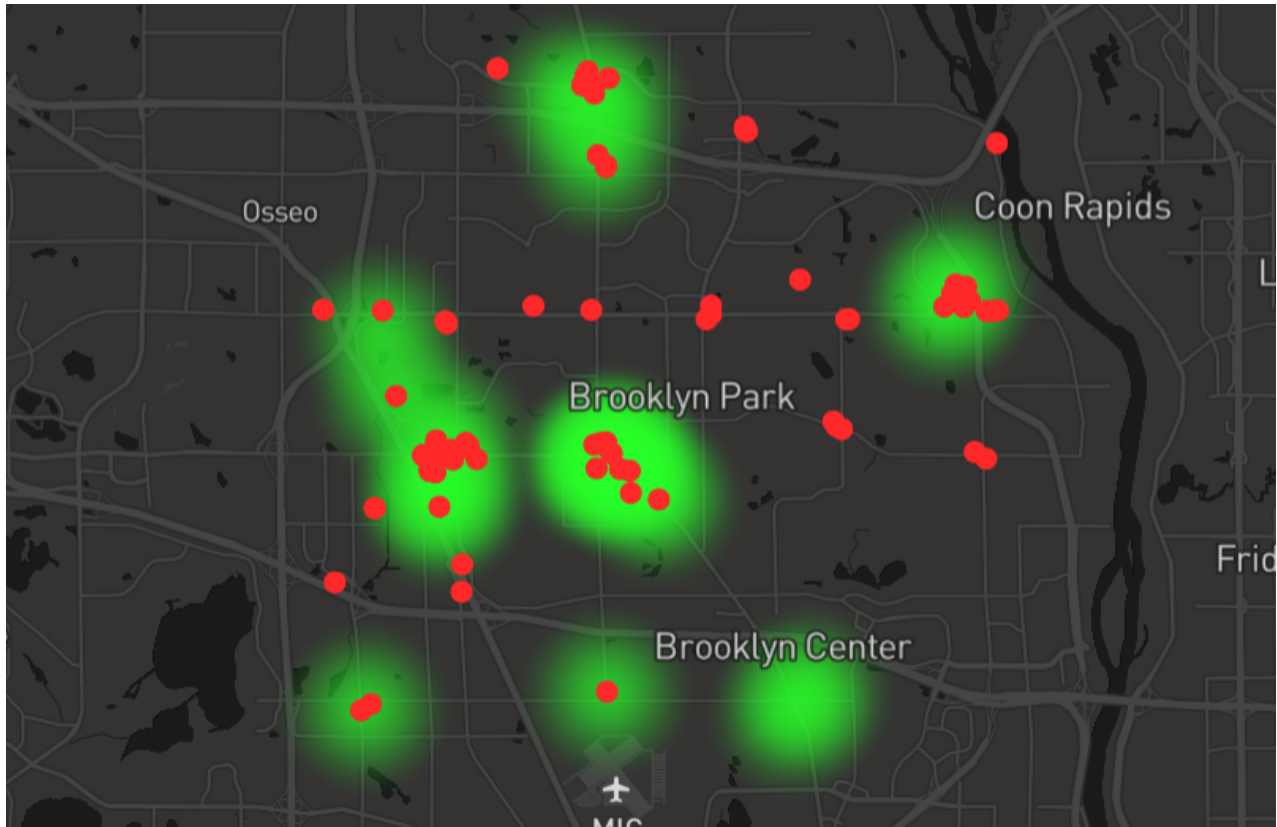
The data aggregated is less than clear when comparing international vs conventional, or large vs small stores. Given there were so few foods studied, we can say it is more likely than not that large grocery stores are cheaper than small grocery stores and that conventional stores are likely cheaper than international stores, but we can not say this with any statistical certainty. There was food on our sheets that were missing from the stores themselves even out of the few items we surveyed. For example, most smaller markets didn't sell any meat so it's hard to do a proper price analysis on these. In addition, the brands widely varied from store to store. To have a better idea of prices, we would have to do another survey with many more items if this information on big vs small, or international vs conventional, is particularly valuable.

However, here were some grocery stores that had prices that wildly varied from the mean store that can reveal some more interesting information that is statistically relevant. Aldi, for example, had about 40% lower prices on the items we surveyed. Ironically, a grocery store named Value Food Corp had prices that were over 40% of the average, but they did not have all the items on our list so that statistic is only for a few samples. Cub Foods, Dragon Star, and Sun Foods were 30% cheaper than the average. Fast N Fresh Foods and Golden Lion Supermarket similarly had prices that

were over 30% of the average. Granted, all these numbers are from very few items with brands that varied widely. Still, we can still assume these individual markets have prices that significantly are below or above the average, respectively.



Appendix



A website that was made to display the locations of the grocery stores (in green) and restaurants (in red).

<http://www.brooklynpark.com.s3-website-us-east-1.amazonaws.com/>