Dollar Stores: A Potential Threat to Independent Grocery Stores and Community Health

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Overview

With the rise of convenience stores, specialty food stores, warehouse clubs, and dollar stores, the food-retail industry is rapidly shifting across the United States. Rural and suburban America have seen many of these shifts, notably the rise of dollar stores and the decline of full-service grocery stores. These changes may have significant implications for the health and well-being of consumers and are especially relevant in Tompkins County, New York, where few full-service grocery stores remain.

This research aims to examine the competitive dynamics between dollar stores and independent, full-service, grocery stores in Tompkins County, and to provide insight into the implications of these dynamics for the health and well-being of Tompkins County residents. Through a combination of quantitative and qualitative methods, including literature review, data analysis, and interviews, we find that although dollar stores are not intended to serve as full-service grocery stores, they pose a significant source of competition. Ultimately, we conclude that dollar stores are not an adequate substitute for the social, economic, and nutritional benefits of full-service grocery stores. If they expand, they may threaten the economic viability of full service grocery stores and adversely affect the health and well-being of Tompkins County residents.

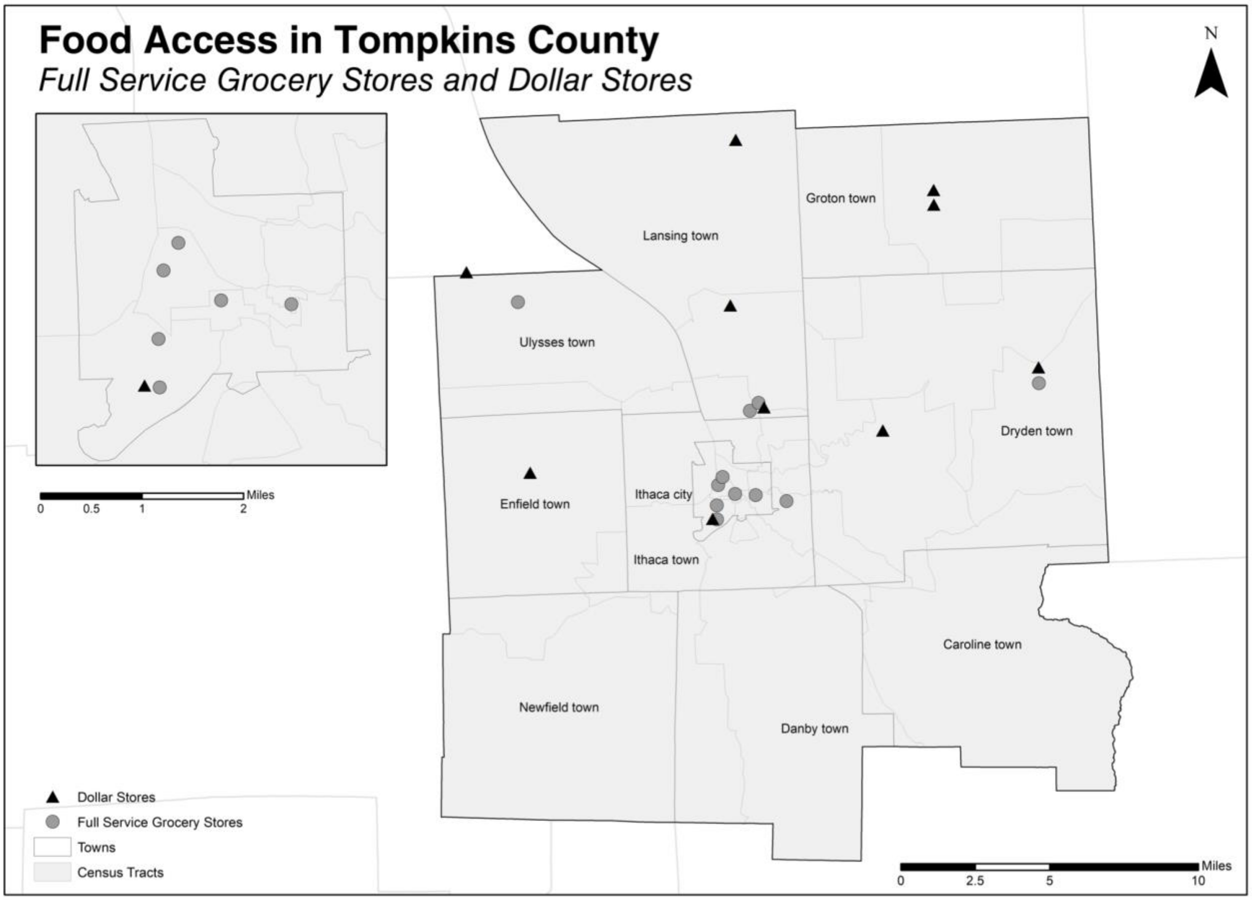
Background

In recent years, Tompkins County has experienced the loss of full-service grocery stores in several towns and hamlets. A full-service grocery store is defined as a retail store that specializes in selling a wide variety of food and household products. This includes fresh produce, meats, dairy, bakery goods, and non-perishable items. Full-service grocery stores are often larger than other types of food retail businesses, such as convenience stores or discount stores. Compared to other food retailers, full-service grocery stores offer a wider selection of products and brands, as well as more variety within each product category.

Currently, there are dollar stores in nearly every municipality of Tompkins County, but only two full-service grocery stores outside of Ithaca: the Trumansburg Shursave and the Dryden Food Market (Clarks Food Mart). These businesses are independent, full-service, grocery stores that provide both brand-name products and locally sourced goods. Through what was previously known as the Olean Wholesale Grocery Cooperative, now known as C&S Wholesale, these stores have the purchasing power to offer customers brand-name products **(1)**. In addition to the branded products supplied through C&S, the stores are also supplied by local and regional vendors, including Byrne Dairy, Trinity Farms, and Grisamore Farms.

While independent, full-service, grocery stores play a large role in the food retail landscape of Tompkins County, the expansion of dollar stores may threaten their economic competitiveness. Tompkins

County, similar to many other parts of America, has seen the rapid growth of dollar stores. A study by the United States Department of Agriculture has revealed that over the past two decades, while the share of grocery stores has decreased, the share of dollar stores grew by 150% **(2)**. Today, there are dollar stores in Ithaca, Trumansburg, Lansing, Freeville, Groton, and Dryden, with more locations expected to open.



Source: Google Maps, Open Street Map | Date: February 2023
Coordinate System: NAD 1983 StatePlane New York Central FIPS 3102 Feet | Projection: Transverse Mercator | Datum: North American 1983 False Easting: 820,208.3333 | False Northing: 0.0000 | Central Meridian: -76.5833 | Scale Factor: 0.9999 | Latitude Of Origin: 40.0000 | Units: Foot US

Figure 1: Full-Service Grocery Stores and Dollar Stores in Tompkins County ***(3)***

The figure above depicts the locations of full-service grocery stores and dollar stores in Tompkins County. While there are multiple full-service grocery stores in Ithaca, only two full-service grocery stores remain open in other municipalities. However, in these municipalities, dollar stores have opened in close proximity and represent a source of competition. In Trumansburg, the Dollar General store is only 2 miles away from the Trumansburg ShurSave, and in Dryden, a Dollar General is only 0.5 miles away from the Dryden Food Market.

The dramatic expansion of the dollar store industry is largely attributed to the successful business model behind two of the largest dollar store chains: Dollar Tree and Dollar General. The general business model of Dollar Tree and Dollar General is to offer a wide range of products at low prices. They market towards cost-conscious consumers, who typically make $40,000 a year or less. To reach this demographic, these stores tend to target areas with small populations, where big box retailers are not available within 15-20 miles. In 2021, over 75% of Dollar General stores were found in towns with fewer than 20,000 people **(4)**. By strategically appealing to cost-conscious consumers and targeting areas with few options, these Dollar Stores aim to serve as a one-stop shopping destination for a wide variety of products.

Despite not carrying fresh produce in most locations, Dollar Tree and Dollar General are competitive with local, independent, grocery stores because they offer a more convenient, low-cost, one-stop, shopping experience. Dollar stores are able to provide a one-stop shopping experience by investing in technology and logistics systems that allow them to offer online shopping, home delivery, and in-store pickup options. Dollar stores are also able to offer greater convenience because they tend to be open for more days a week and offer extended hours. In addition to a convenient, one-stop, shopping experience, dollar stores are also able to offer a low-cost shopping experience because they have greater purchasing power, allowing them to negotiate prices with suppliers. Since dollar stores tend to be smaller in size than full-service grocery stores and employ fewer workers, they also have lower operating costs. On average, Dollar General stores are 7,400 square feet, while full-service grocery stores are on average 40,000 square feet **(4)**. Combined, the purchasing power of dollar store chains and lower operating costs allows dollar stores to offer a wider range of products at lower prices. This can be highly attractive to cost-conscious consumers.

Ultimately, these enticing low prices are a challenge for independent, full-service grocery stores, because the dry goods, household products, and daily essentials that dollar stores offer at low prices are often also the highest-margin items for grocery stores **(5)**. These small, independent grocery stores are already operating at thin profit margins, and with competition from dollar stores, these smaller grocery stores are pressured to lower the prices to unsustainable levels.

The trend of dollar store expansion does not seem to be slowing down soon, with Dollar General and Dollar Tree planning to open a combined additional 24,000 locations in upcoming years (**5)**. This is a concern, as the expansion of dollar stores would further threaten the remaining independent, full-service grocery stores and drive many to close their doors. This may have significant implications and consequences for the communities that these full-service grocery stores serve. Studies have found that once dollar stores enter a food desert, that area is more likely to remain without access to a grocery store **(6)**. This means that if dollar stores are to compete with local full-service grocery stores and displace them, consumers would have to rely on dollar stores as their primary source of food.

This is concerning, as dollar stores do not offer the same range of products as grocery stores. Specifically, many of these dollar stores lack the same selection of fresh produce, meats, dairy, and bakery goods as traditional grocery stores. In 2019, only 3% of Dollar General locations sold fresh produce **(7)**. Instead, dollar stores primarily offer non-perishable, processed, and unhealthy food options such as canned foods, packaged snacks, sweetened beverages, packaged and processed meats, and sweets, all of which are associated with negative health outcomes. One study found that foods purchased at small and non-traditional food stores, such as dollar stores, are associated with poor health outcomes, including depression, decreased immune function, greater healthcare expenditure, and longer hospital stays. **(7, 8, 9).**

The replacement of local, full-service, grocery stores with dollar stores would have profound impacts, as many of these grocery stores play an important role in rural communities. Beyond offering healthy foods and supporting community nutrition, they often serve as anchor institutions, providing a place for social interaction and community engagement. Independent grocery stores are important to the multiplier effect, which describes a growing chain of economic activity. Local independent grocery stores are important to the multiplier effect because they generate economic activity in the community by providing employment opportunities, purchasing products from local suppliers and vendors, and helping attract other businesses to the area **(10)**. A study of several small, rural communities in Maine found that a "multiplier effect" exists among local independent grocery stores, with 48% of each purchase made at local independent businesses recirculated locally **(11).** For comparison, the same study found that only 14% of each purchase made at big box retailers was recirculated locally. Ultimately, the loss of a local, independent, full-service grocery store can have profound social and economic implications for a community.

Methods

To understand the competitive dynamics between dollar stores and the independent, full-service, grocery stores in Tompkins County, the owners of the Dryden Food Market and the Trumansburg ShurSave were contacted for interviews. The owner of the Lansing Market, a previously locally-owned, independent, full-service grocery store that closed in December of 2022, was also contacted for an interview.

Then, to understand the nutritional implications of the dollar store food offerings, the food offerings of dollar stores in Trumansburg and Dryden were analyzed by visiting both dollar stores. Foods were sorted into categories outlined by the United States Department of Agriculture's "What We Eat in America" food categories. Then, the abundance and average cost of each food category were determined. These findings were then presented to the Tompkins County Age Friendly Center for Excellence Steering Committee for feedback and additional perspectives.

Findings

While the Trumansburg ShurSave and Dryden Food Market were unable to comment, Eric Eisenhut, a partner in the ownership team of Lansing Food Market was able to provide insight into how the grocery store operated, challenges that the store faced, and why the store closed. Though the Lansing Food Market has now closed, many of the challenges that the store faced and the consequences of the store closing could be applicable to the Trumansburg ShurSave and the Dryden Food market.

When asked about the business model of Lansing Market, Eisenhut shared that the store previously employed around 40 people from a wide range of ages. These employees worked both part-time and full-time, and all lived near Lansing. Before closing, the Lansing Market used local radio groups to advertise and had insurance through Tompkins Insurance Agency. While some store products came from C&S Wholesale, the Lansing Market also sourced a variety of local products, including fruits, vegetables, dairy products, and brews from Grisamore Farms, Byrne Dairy, Trinity Farms, and Edwards Eggs.

Eisenhut spoke about Lansing Market's strong community ties, as all of the families that owned the Lansing market are from Lansing themselves. With these community ties, Lansing Market strove to give back to the community and supported Lansing's Girl Scout and Boy Scout troops, the Lansing Recreation Department athletic programs, the Community Recreation Center, the Lansing Central School District arts and athletics programs, as well as the Friends of Lansing Center Trails. The Lansing Market also offered sponsorships to community organizations, had accounts for local nonprofit organizations, and maintained close connections with the Lansing Food Pantry and the Salvation Army.

Eisenhut identified the nearby Dollar General as one of the challenges that Lansing Market faced and as one reason the Lansing Market closed. Eisenhut stated that as a small independent grocer, Lansing Market struggled to compete with national grocers and dollar stores. Lansing Market aimed to be a traditional full-service grocery store with fresh produce, fresh meats, and a bakery that people use as a "broad base shopping experience" instead of a "specialty niche." However, Dollar General took the "easy stuff," such as dry goods, without providing fresh produce, fresh meat, and fresh baked goods. When people shopped by price, they turned to Dollar General for dry goods, thereby "reducing Lansing Market's basket."

When asked how the closing of Lansing Market would affect the local community, Eisenhut spoke about his employees and the larger community. He shared that the loss of the Lansing Market would cost over 40 jobs. These jobs previously allowed people to work close to home and will force many to seek employment further away from home. Eisenhut suggested that this may be a challenge for some of his employees who lack transportation. He also shared that the loss of the Lansing Market would mean a loss of financial support for the many local programs and businesses that the Lansing market supported. The loss of the Lansing Market would also require customers to travel further away to purchase products not available at dollar stores. For those without transportation, most notably older adults, this travel may act as a barrier and could ultimately force them to become dependent on nearby dollar stores as their primary source of food.

To examine what this dependence on dollar stores would look like, food and beverage offerings were examined at the two dollar stores and categorized by the United States Department of Agriculture's "What We Eat in America," (WWEIA) food categories. The WWEIA food categories are used in the National Health and Nutrition Examination Survey, which is a nationally representative survey that collects data on the dietary habits and nutritional status of the American Population. Below is a figure depicting the different categories and the variety of specific foods and beverages within each category.

Figure 2: What We Eat in America Food Categories

MILK AND DAIRY

Milk
Milk, whole
Milk, reduced fat
Milk, lowfat
Milk, nonfat
Flavored Milk
Flavored milk, whole
Flavored milk, reduced fat
Flavored milk, lowfat
Flavored milk, nonfat
Dairy Drinks and Substitutes
Milk shakes and other dairy drinks
Milk substitutes
Cheese
Cheese
Cottage/ricotta cheese
Yogurt
Yogurt, regular
Yogurt, Greek

PROTEIN FOODS

Meats
Beef, excludes ground
Ground beef
Pork
Lamb, goat, game
Liver and organ meats
Poultry
Chicken, whole pieces
Chicken patties, nuggets and tenders
Turkey, duck, other poultry
Seafood
Fish
Shellfish
Eggs
Eggs and omelets
Cured Meats/Poultry
Cold cuts and cured meats
Bacon
Frankfurters
Sausages
Plant-based Protein Foods
Beans, peas, legumes
Nuts and seeds
Processed soy products

MIXED DISHES

Mixed Dishes - Meat, Poultry, Seafood
Meat mixed dishes
Poultry mixed dishes
Seafood mixed dishes
Mixed Dishes - Grain-based
Rice mixed dishes
Pasta dishes, excludes macaroni and cheese
Macaroni and cheese
Turnovers and other grain-based items
Mixed Dishes - Asian
Fried rice and lo/chow mein
Stir-fry and soy-based sauce mixtures
Egg rolls, dumplings, sushi
Mixed Dishes - Mexican
Burritos and tacos
Nachos
Other Mexican mixed dishes
Mixed Dishes - Pizza
Pizza
Mixed Dishes - Sandwiches (single code)
Burgers
Chicken/turkey sandwiches
Egg/breakfast sandwiches
Frankfurter sandwiches
Other sandwiches
Mixed Dishes - Soups
Soups

GRAINS

Cooked Grains
Rice
Pasta, noodles, cooked grains
Breads, Rolls, Tortillas
Yeast breads
Rolls and buns
Bagels and English muffins
Tortillas
Quick Breads and Bread Products
Biscuits, muffins, quick breads
Pancakes, waffles, French toast
Ready-to-Eat Cereals
Ready-to-eat cereal, high sugar (>21.2g/100g)
Ready-to-eat cereal, low sugar (≤21.2g/100g)
Cooked Cereals
Oatmeal
Grits and other cooked cereals

SNACKS AND SWEETS

Savory Snacks
Potato chips
Tortilla, corn, other chips
Popcorn
Pretzels/snack mix
Crackers
Crackers, excludes saltines
Saltine crackers
Snack/Meal Bars
Cereal bars
Nutrition bars
Sweet Bakery Products
Cakes and pies
Cookies and brownies
Doughnuts, sweet rolls, pastries
Candy
Candy containing chocolate
Candy not containing chocolate
Other Desserts
Ice cream and frozen dairy desserts
Pudding
Gelatins, ices, sorbets

FRUIT

Fruits
Apples
Bananas
Grapes
Peaches and nectarines
Berries
Citrus fruits
Melons
Dried fruits
Other fruits and fruit salads

VEGETABLES

Vegetables, excluding Potatoes
Tomatoes
Carrots
Other red and orange vegetables
Dark green vegetables, excludes lettuce
Lettuce and lettuce salads
String beans
Onions
Corn
Other starchy vegetables
Other vegetables and combinations
Vegetable mixed dishes
White Potatoes
White potatoes, baked or boiled
French fries and other fried white potatoes
Mashed potatoes and white potato mixtures

BEVERAGES, NONALCOHOLIC

100% Juice
Citrus juice
Apple juice
Other fruit juice
Vegetable juice
Diet Beverages
Diet soft drinks
Diet sport and energy drinks
Other diet drinks
Sweetened Beverages
Soft drinks
Fruit drinks
Sport and energy drinks
Nutritional beverages
Smoothies and grain drinks
Coffee and Tea
Coffee
Tea

ALCOHOLIC BEVERAGES

Alcoholic Beverages
Beer
Wine
Liquor and cocktails

WATER

Plain Water
Tap water
Bottled water
Flavored or Enhanced Water
Flavored or carbonated water
Enhanced or fortified water

FATS AND OILS

Fats and Oils
Butter and animal fats
Margarine
Cream cheese, sour and whipped cream
Cream and cream substitutes
Mayonnaise
Salad dressings and vegetable oils

CONDIMENTS AND SAUCES

Condiments and Sauces
Tomato-based condiments
Soy-based condiments
Mustard and other condiments
Olives, pickles, pickled vegetables
Pasta sauces, tomato-based
Dips, gravies, other sauces

SUGARS

Sugars
Sugars and honey
Sugar substitutes
Jams, syrups, toppings

INFANT FORMULA & BABY FOOD

Baby Foods
Baby food: cereals
Baby food: fruit
Baby food: vegetable
Baby food: meat and dinners
Baby food: yogurt
Baby food: snacks and sweets
Baby Beverages
Baby juice
Baby water
Infant Formulas
Formula, ready-to-feed
Formula, prepared from powder
Formula, prepared from concentrate
Human Milk
Human milk

OTHER

Protein and nutritional powders
Not included in a food category

With these categories, 888 items and their prices across the two Dollar General locations in Trumansburg and Dryden were recorded and sorted. The "snacks and sweets" category was further organized into "savory snacks" and "sugary snacks."Additionally, the "fruits," "vegetables," and "protein foods categories" were separated into fresh and modified. Modified foods are foods that have been modified in a way that does not occur naturally, like canned or frozen fruits and vegetables that have undergone a preservation process, or meats that have been preserved by curing or adding chemical preservatives. Below is a figure depicting the distribution of each category at the dollar stores.

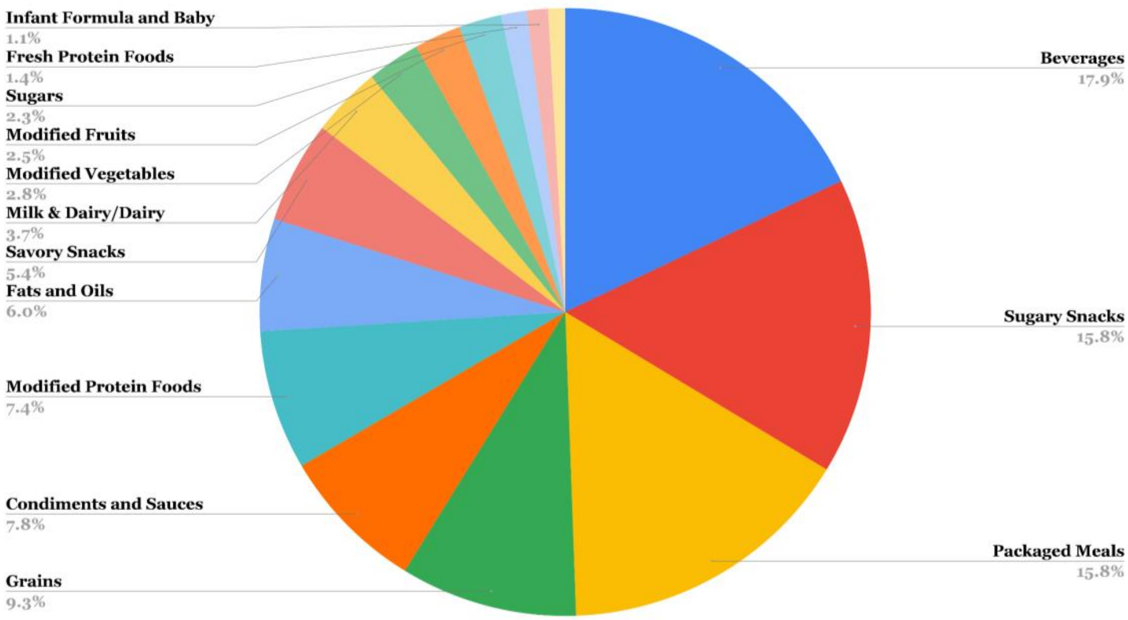


Figure 3: Relative Abundance of Food Categories at Dollar General Locations
Author analysis, 2 stores in Lansing, Dryden, and Trumansburg, Fall 2022

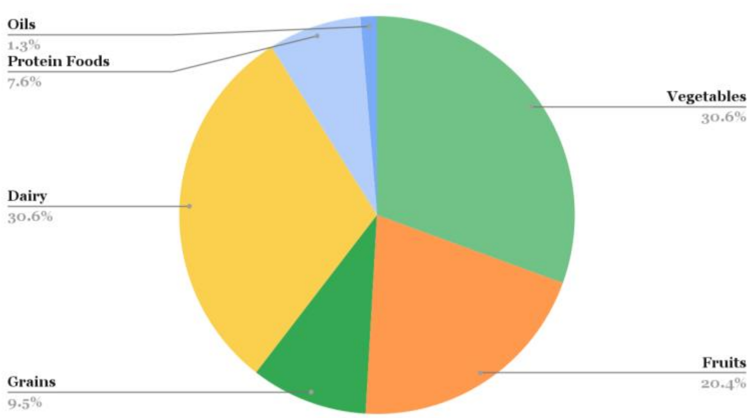


Figure 4: United States Department of Agriculture Recommended Daily Food Intake for Adults

Across the two Dollar General locations, the most plentiful items were beverages (17.9%), sugary snacks (15.77%), and packaged meals (15.76%). The least plentiful food items were water (0.9%), infant formula, and baby food (1.126%), fresh protein foods (1.35%), modified fruits (2.48%), and modified vegetables (2.81%). There were no fresh fruits or vegetables. For comparison, the United States Department of Agriculture recommends the general adult consume a diet that is 30.6% vegetables (2-4 cups/day), 20.4% fruits (1.5-2.5 cups/day), 9.5% grains (5-10 oz/day), 30.6% dairy (3 cups/day), 7.6% protein (5-7 oz/day), and 1.3% oils (22-44 grams/day) **(12)**. Alongside the figure depicting the relative abundance of food categories at Dollar General locations is a figure depicting the recommended intake for the general adult. When the two figures are compared, there is a dramatic difference in the representation of food groups, demonstrating that a dollar store would not be conducive to sustaining a healthy diet.

To further assess the food offerings at dollar stores, the average cost per item was found for each food category. Below is a chart depicting the findings[1]

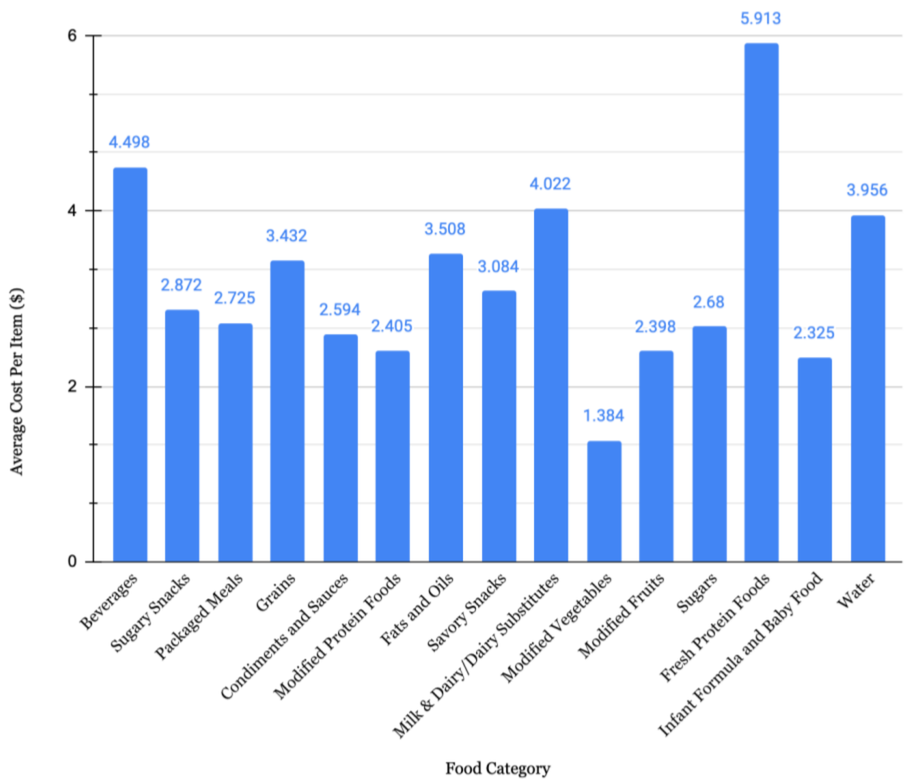


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Figure 5: Average Cost Per Item of Each Food Group
Author analysis, 2 stores in Lansing, Dryden, and Trumansburg, Fall 2022

[1] *These prices were collected in Fall 2022. Inflation has increased since. Relative differences are more relevant than levels.*

It was found that the most costly categories were fresh protein foods (avg. $5.91/item), and milk and dairy products (avg. $4.02/item). The cheapest categories were modified vegetables ($1.38/item) and added sugars (avg. $2.68/item). This imbalance in prices illustrates how the food offerings of Dollar General are not conducive to a healthy diet, as the important items, such as fresh protein foods and milk and dairy products, are more costly, while items such as added sugars are inexpensive. Although the price of modified vegetables is relatively low, the relative abundance is also low (2.8%), suggesting that despite the low cost, relying on a dollar store as a source of vegetables would be inadequate.

In presenting these findings to the Tompkins County Age Friendly Center for Excellence Steering Committee, it was mentioned that for communities that are already lacking grocery stores, having a dollar store is better than having no store at all. Though dollar stores indeed serve as a source of both groceries and other items when there is no access to other stores, the concern remains in the towns where dollar stores and grocery stores coexist. Dollar stores, while not intended to serve as grocery stores, still act as a source of negative competition for local independent grocery stores, and can thus threaten to displace grocery stores. If dollar stores displace these local independent grocery stores, they would not be able to adequately provide substitutes.

Conclusions

Ultimately, if the remaining independent, full-service, grocery stores in Trumansburg and Dryden continue to struggle in competing with dollar stores, local communities will be profoundly impacted. Similar to the Lansing Market, many workers in Trumansburg and Dryden would lose their jobs, local businesses would lose a source of income, and many community institutions would lose financial support. Additionally, the loss of these remaining grocery stores would have significant implications for the health and well-being of the local community. For those without access to transportation to travel farther away to full-service grocery stores, the nearby dollar store would become the primary source of nutrition.

To have residents relying on nearby dollar stores as a source of nutrition would be extremely concerning, as dollar stores are not adequately stocked to support a balanced diet. As seen in the nutritional analysis of nearly 900 items across the Dollar Generals in Trumansburg and Dryden, dollar stores lack the proteins, fruits, vegetables, dairy products, and healthy grains that a healthy diet requires. Instead, they are abundant in sweetened beverages, sugary snacks, and packaged meals, all of which are associated with negative health outcomes.

To combat the expansion of dollar stores into vulnerable areas, cities across America have turned to legislation. In Birmingham, Alabama, a moratorium on the opening of dollar stores within one mile of existing locations was passed **(13)**. Tulsa, Fort Worth, New Orleans, and Cleveland have seen similar restrictions on where new dollar stores can open. In Cleveland and Kansas City, the ordinances passed to regulate the total number and proximity of dollar stores were also designed to incentivize dollar stores to carry fresh produce. The policies exempted stores that dedicated at least 15% of shelf space to fresh and frozen food or those that contain a prescription pharmacy, from the moratorium on dollar stores.

Other cities have worked to support independent grocery stores. To support grocers, Kansas City founded the Rural Grocery Initiative, a program that provides resources to help establish and sustain independently owned rural grocery stores **(14)**. The initiative works to help identify and respond to significant challenges that rural grocery stores face, highlight sustainable models of rural grocery and operation, and strengthen access to healthy foods. One of these resources they provide is the Rural Grocery Toolkit, a source of information on market assessment, business organization, finance, management, food supply, and marketing for existing grocers and those establishing new grocery stores, specifically in the context of Kansas.

In the context of Tompkins County, the proposal for more Dollar General stores has sparked debate. In 2020, the Town of Caroline passed a moratorium on land use development for 180 days, effectively pausing the construction of a new Dollar General location in the area **(15)**. The moratorium was said to be imposed so that the local leaders could finish updating the town's comprehensive plan, a process that had been ongoing for the past six years. By waiting to complete the comprehensive plan, a decision regarding the construction of a new Dollar General could be made to best align with the town's plans. Opposition to Dollar General was mainly due to the belief that the store would not fit within the culture of the town, that the store posed a threat to local food sources, and that the store would not provide essential, healthy foods for the community. However, supporters believed that the store offered an accessible, affordable, and easier in-and-out shopping experience. Ultimately, the town's comprehensive plan was adopted in January 2021. This plan initiated the process of drafting zoning laws to address Dollar General and other developments, which has been met with criticism from some residents **(16)**. Residents in the town of Caroline have formed an ad-hoc group called "Caroline Residents Against Zoning." This group has gained over 400 members online and held two protests at the town hall. They worry that introducing zoning to the town would hinder future business development because of the additional upfront costs for businesses to get started, and because of the restrictions on what property owners could do on their land. This debate is ongoing, and as of November 2022, there is no Dollar General in Caroline.

If the trends of dollar store expansion continue and the remaining local, independent, full-service, grocery stores are displaced, future research may need to investigate the long-term economic impacts, long-term health outcomes, policy interventions, and solutions for food access. On the topic of economic impacts, research could be done to investigate county data on employment, income, and other economic indicators to understand the long-term consequences. In regards to long-term health outcomes, research could be done to examine the long-term trends in diet-related diseases like obesity and diabetes, and analyze whether there are differences in health outcomes before and after the loss of grocery stores. Research could also be done to explore the effectiveness of different policy interventions aimed at mitigating the negative impacts of dollar store expansion on rural communities by looking at zoning regulations and community organizing efforts. Finally, research could be done on economic development strategies to promote access to healthy foods in outlying areas. This could be done by assessing support to local farmers markets, independent grocery stores, or delivery options from grocery stores in the urban core.

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