

Beyond Food Access:  
Accumulation by Dispossession and Dollar General in Central Appalachia

Amanda M. Burroughs

Thesis submitted to the faculty of the Virginia Polytechnic Institute and State University in  
partial fulfillment of the requirements for the degree of  
Master of Science  
In  
Sociology

David Brunsmas  
Shannon Bell  
Samuel Cook

May 4, 2021  
Blacksburg, Virginia

Keywords: Dollar General, Central Appalachia, food access, food deserts, food insecurity

Beyond Food Access:  
Accumulation by Dispossession and Dollar General in Central Appalachia

Amanda M. Burroughs

ACADEMIC ABSTRACT

Dollar General has seen massive growth, opening almost 1,000 stores per year for ten years. Executives attribute the company's success to their attention to the expanding poverty class in low-food-access urban and rural areas. Central Appalachia in particular -- which has one of the highest rates of low food access and poverty in the nation -- has been a growth center for Dollar General stores. Has the growth in Dollar General stores in Central Appalachia affected residents' food procurement patterns? Through an analysis of USDA data on food access and by conducting interviews with 11 people living in Central Appalachia, I find that Dollar General stores are most frequently found in low-income and low-food-access counties and that Central Appalachian people perceive the chain as a necessary evil. I argue that the complicated relationship between Dollar General and Central Appalachian people is an example of David Harvey's theory of accumulation by dispossession. Neoliberal globalization created the conditions that allow Dollar General to thrive in the region -- in particular, the corporate enclosure of the commons, the decline of the coal industry, and the new economy which has forced many people to travel hours a day for work.

Beyond Food Access:  
Accumulation by Dispossession and Dollar General in Central Appalachia

Amanda M. Burroughs

GENERAL AUDIENCE ABSTRACT

Dollar General has seen massive growth, opening almost 1,000 stores per year for ten years. Executives attribute the company's success to their attention to the expanding poverty class in low-food-access urban and rural areas. Central Appalachia in particular -- which has one of the highest rates of low food access and poverty in the nation -- has been a growth center for Dollar General stores. Has the growth in Dollar General stores in Central Appalachia affected residents' food procurement patterns? Through an analysis of USDA data on food access and by conducting interviews with 11 people living in Central Appalachia, I find that Dollar General stores are most frequently found in low-income and low-food-access counties and that Central Appalachian people perceive the chain as a necessary evil. I argue that the complicated relationship between Dollar General and Central Appalachian people is an example of David Harvey's theory of accumulation by dispossession. Neoliberal globalization created the conditions that allow Dollar General to thrive in the region -- in particular, the corporate enclosure of the commons, the decline of the coal industry, and the new economy which has forced many people to travel hours a day for work.

## Dedication

This thesis is dedicated to my parents. Thank you for always encouraging my curiosity.

## Acknowledgements

I would like to thank my committee members, Dr. Brunsma, Dr. Bell, and Dr. Cook, for their unwavering support of this project. Thank you for always listening and helping me untangle my thoughts. I could not have done this without your wisdom and guidance. I would also like to thank my undergraduate sociology professors, Dr. Aysha Bodenhamer, Dr. Stephanie Bradley, Dr. Joanna Hunter, Dr. Beth Lyman, and Dr. Allison Wisecup. Thank you for your mentorship and for being your unapologetic selves. You believed in me before I believed in myself.

## Table of Contents

Title .....	i
Academic Abstract.....	ii
General Audience Abstract.....	iii
Dedication.....	iv
Acknowledgements.....	v
List of Tables .....	vii
Introduction.....	1
Literature Review.....	4
Dollar General – Profiting off the Poor.....	4
Political Economy in Central Appalachia .....	5
Accumulation by Dispossession.....	7
Food Access Studies and Measurement .....	9
Methods.....	12
Quantitative Findings.....	15
Qualitative Findings.....	21
Food and store choices .....	21
“Access” isn’t the problem.....	23
Dollar General – A necessary evil.....	25
A different kind of market solution.....	26
Discussion .....	27
Limitations .....	29
References.....	30

## List of Tables

Table 1: Respondent Characteristics

Table 2: Descriptive Statistics

Table 3: Correlation Matrix

## **Introduction**

“But I think a lot of the dollar stores kind of underwent a rebranding. I think a couple of years ago they were derided almost like a check cashing joint would have been. You know what I mean? They kind of pop up where poverty is. And I think now - I think they’re viewed as much more favorably because of what they’re saying - “we’re servicing people where Walmart won’t.”

– Ben, interview participant

“The economy is continuing to create more of our core customer. We are putting stores today [in areas] that perhaps five years ago were just on the cusp of probably not being our demographic, and it has now turned to being our demographic.” – DG CEO Todd Vasos (2017)

There is much debate about Dollar General’s growth in primarily poor rural and urban areas. Some argue that the discount dollar store chain helps to alleviate food insecurity while others argue that its growth in small towns hurts local businesses and that its unhealthful food options actually contribute to food insecurity. In a scathing critique of the company, professor of nutrition Barry Popkin, said, “Shame on you. You're killing America just so you can get richer” (Aubrey 2019). Popkin is referring to the highly processed, calorie-dense foods that make up what Gerardo Otero calls the neoliberal diet (Otero 2018). Dollar stores have a reputation for only selling these kinds of foods. This, along with the ways in which the store negatively impacts local economies has led some people to organize against Dollar General in their towns (Mitchell and Donahue 2018). Some towns and cities have implemented regulations limiting the number of dollar stores in their locales (Canfield 2018; Martinson 2019; Williams 2019).



Dollar General's focus on poor areas with few grocery stores makes Central Appalachia a prime market for the company. Central Appalachian people, like rural people across the US, once shopped at close to home, locally owned grocery stores. But during the 1990s, Walmart's domination of rural America caused small mom and pop grocery stores to go out of business (Copeland and Labuski 2013). Once the region was no longer profitable for Walmart (largely due to the on-going decline of the coal industry), many Walmart stores closed, leaving behind a retail power vacuum. Dollar General seized this opportunity.

There is little social science literature on the relationship between food access and dollar stores. Literature on this topic tends to be found in public health (and related) journals (Caspi et al. 2016; Coughenour et al. 2018; Drichoutis et al. 2015; Jithitikulchai et al. 2012; Ma et al. 2017; Sharkey et al. 2009). Among food access studies, there are few that focus on the Appalachian region (Gustafson et al. 2012; Lohnes and Wilson 2018; Thatcher et al. 2017). This body of literature highlights the negative health outcomes associated with the neoliberal diet, but it leaves an important gap – people's lived experiences. The purpose of these studies is often to determine whether or not dollar stores sell healthful food items, but they do not consider whether or not that matters. In an economy that forces people to work multiple jobs and travel long distances to get to their jobs, many people simply do not have the time necessary to prepare healthful meals.

I am interested in understanding and critiquing Dollar General's complicated relationship with Central Appalachia. The company is ubiquitous in the region – so much so that it is often the subject of Appalachian memes and videos. Dollar General is not the cause of hunger or food insecurity, and, despite the neoliberal proclivity for market solutions, it is also not a remedy. In this paper, I explain this relationship as an example of David Harvey's theory of accumulation by

dispossession. Neoliberal globalization created the conditions that allow Dollar General to thrive. This is particularly salient in Central Appalachia where Dollar General stores can be found in even the most remote areas. Harvey's main point is that the state and corporations work to concentrate wealth into the hands of the elite. In the case of Central Appalachia and Dollar General, we see a region of generationally exploited people who experience poverty related social problems at a higher rate than much of the US. The state has had an interest in Appalachian poverty since President Johnson's "War on Poverty" and the creation of the Appalachian Regional Commission. Despite this supposed interest in alleviating poverty in the region, the state has time and again rolled back welfare programs and supported the extractive industries and retail mega-corporations that hurt the region. Dollar General is the latest iteration of the state allowing an exploitative company to take over rural America.

This research uses a mixed methods approach to answer the following research questions:

1. Where do Central Appalachian people get their food, and does this differ by low food access status?
2. How does the presence of Dollar General affect Central Appalachian people's approaches to food procurement?
3. Do Central Appalachian people perceive Dollar General as harmful or beneficial to their communities?
4. Is there a significant difference in the number of Dollar General stores in Central Appalachian food deserts and non-food deserts?

Using data from the US Department of Agriculture (USDA) Food Environment Atlas and the USDA database of Supplemental Nutrition Assistance Program (SNAP)-authorized retailers, I examine patterns in low food access and non-low food access counties. A correlation matrix

shows that there are significant relationships between low food access counties and number of Dollar General stores. These relationships are stronger for nonwhite populations. In addition, I analyze data from interviews with Central Appalachian people to explore their food procurement practices and to illuminate their relationship with Dollar General and other area grocery stores. Overall, respondents view Dollar General as a necessary evil in their communities, often comparing the company to the coal industry. Many respondents implied that there is a stigma associated with shopping at Dollar General and that it preys on poor, generationally exploited people.

## **Literature Review**

### *Dollar General – Profiting off the Poor*

The first Dollar General store opened on June 1, 1955 in Springfield, Kentucky (Turner, Jr. 2018). Since then, the company has seen steady growth, but it has experienced the most significant growth in the years following the 2008 economic recession. As the middle-classes dissolved and consumers spent less money, retailers looked for ways to market to the expanding poverty class (Shrestha 2016). In 2011, a New York Times Magazine article declared that the US was entering a “dollar-store economy” (Hitt 2011). Since then, Dollar General has more than doubled its number of stores, opening hundreds of stores each year of the past decade (Kleckler 2020; DollarGeneral.com). The chain celebrated its 17,000th store opening in November of 2020, and now, 75 percent of Americans live within 5 miles of a Dollar General store. (DollarGeneral.com).

The company thrives off economic precarity. This fact has become more striking during the COVID-19 pandemic, during which Dollar General thrived while other retailers’ profits declined. In December of 2020, Reuters reported that “Dollar General Corp reported better-than-

expected quarterly results...as the discount retailer benefited from higher demand for cheaper groceries and household items during the coronavirus-induced economic downturn” (“Dollar stores thrive in pandemic, but hold back forecasts”). During the same month, overall retail sales declined despite the holiday shopping season (Mutikani 2021).

### *Political Economy in Central Appalachia*

Dollar General’s reliance on precarity makes Central Appalachia an ideal market. Poverty is not unique to the Appalachian region, but its history of generational exploitation at the hands of extractive industries make it highly profitable for predatory companies like Dollar General. Coal’s monopolistic control of the region, the enclosure of the commons, and economic shifts due to the global market have left Central Appalachian people with few choices.

The coal industry maintained a tight grasp on Central Appalachia since the late 1800s when businessmen from outside the region “poured into the hills, procuring millions of acres of land and mineral rights at exceptionally low prices,” (Bell and York 2010). Coal companies took advantage of the cheap labor available to them in the region – former farmers and recently freed Black migrants from the South (Brown 2018). These workers were housed in company towns and paid in scrip, forcing them to pay high prices at the company stores. With no way of earning real money, miners and their families were essentially trapped (Bell and York 2010).

Today, miners face dangerous working conditions and a resurgence of the deadly black lung disease. Bodenhamer and Shriver (2020) found that coal companies use denial, fear and intimidation, falsification of records, and contestation of regulations to cover up this resurgence. Those who do not work in the mines but live near them also live in danger as a result of environmental degradation caused by the industry. Coal slurry pollutes the waters and historic floods devastate communities annually (Bell and York 2010). Bell and York (2012) write that

“Coal may be responsible for more environmental harm than any other energy source”  
(2012:359).

Coal jobs have declined over the past several decades, but the coal industry has maintained its hold on the region. Although mountaintop removal coal mining and mechanization caused a dramatic decrease in mining jobs, many Central Appalachian people remain loyal to the industry largely because of an intense ideological campaign run by Friends of Coal (Bell and Braun 2010; Bodenhamer 2016; Smith 2015). The coal industry’s generational exploitation of workers, destruction of the environment, and domination of the economy has dispossessed Central Appalachian people of their bodies and homes.

Other aspects of Appalachian life have been degraded due to capitalistic ventures as well. Previous generations in Appalachia gathered some food and herbs from the commons. This practice is still common in some areas of the region where ramps and other wild herbs and food grow plentifully, and the Appalachian commons have outlasted those of most of the country. However, in many parts of the region, corporations bought up previously privately owned land and plastered “no trespassing” signs thus enclosing the commons. Along with enclosure laws limiting access to the land, “the process of gentrification, preservation, and intensified extraction of timber and minerals have depleted lands in which communities have exercised fructuary rights for generations” (Hufford 2002:102). Because the company buys up land in the name of serving rural communities, Dollar General is a leading force of gentrification in Central Appalachia.

Coal jobs have drastically declined over the past fifty years, and Central Appalachia’s economy has largely become reliant on service sector jobs (Bell and Braun 2010). However, these jobs are limited in the mountains leaving many people to travel long distances to more developed cities in order to find work (Hayes 2018). Lauren Hayes writes that “continued state

efforts to attract industrial manufacturers back to the edges of the region and the sustained decline of the coal industry have not only opened up new waged opportunities for some women, but also necessitated new kinds of labor mobility” (29:2018). These “new kinds of labor mobility” leave people with a tough choice – relocate your family to a more developed city for a low-paying, precarious service sector job or continue to live at home and commute to that job. These conditions are profitable for Dollar General. For people who spend hours a day driving to a low-paying job, the appeal of Dollar General is obvious. The stores are often located just off main highways, and their prices are advertised as budget friendly. A quick stop at the dollar store is more efficient than going out of the way to a Walmart or grocery store. Dollar General depends on over-worked, underpaid shoppers.

### *Accumulation by Dispossession*

David Harvey’s theory of accumulation by dispossession expands on Marx’s theory of primitive accumulation. Harvey argues that the “primitive” in “primitive accumulation” implies that the process of accumulation is over (Harvey 2003). “Accumulation by dispossession” is a substitution for “primitive accumulation” that brings Marx’s theory into modernity and explains the peculiarities of neoliberal imperialism.

Accumulation by dispossession is a broad theory (some argue too broad – e.g. Das 2017) that encompasses several characteristics associated with capitalism and, specifically, neoliberalism, but the main argument is that the state and corporations work to concentrate wealth into the hands of the elite (Harvey 2003). Harvey’s theory retains the characteristics of primitive accumulation while expanding to include “new forms of commodification, both of nature and culture,” and to respond “to the economic crisis, which is caused by what Harvey calls the overaccumulation of capital...” (Das 2017:593). Accumulation by dispossession

accounts for the neoliberal policies that created “a new wave of ‘enclosing the commons,’”(Harvey 2003:75) and the “on-going cannibalistic and predatory practices occurring even within the advanced capitalist countries under the guise of privatization, market reforms, welfare withdrawals and neoliberalization,” (Harvey 2006:158).

Policies of enclosing the commons, rolling back welfare programs, and supporting a globalized market directly affect food insecurity. Transnational corporations and organizations dominate the food system. According to Chapman and Perkins, “neoliberalism prioritizes a global-scale, productivist-oriented agribusiness economy. Transnational organizations including the World Trade Organization, International Monetary Fund, and World Bank wield power to manipulate market practices globally, including the production of commodity crops” (2019:115). Another way neoliberalism affects food insecurity is through its proponents’ proposed solutions. Under neoliberalism, social problems are “solved” through increased “market transactions” (Harvey 2005:3) rather than welfare programs (Chapman and Perkins 2019:115). However, this only exacerbates the problem of food insecurity because “the reality is that market-based solutions...tend to release the state of its responsibility to ensure the welfare of its citizens, passing the duty to the private sector and community-based groups ill-equipped to address the scale of need” (Chapman and Perkins 2019:115).

This is exactly the case for Dollar General in Central Appalachia. Dollar General continues to dominate most of the US in terms of growth (both in scale and profits), but it is particularly suited to proliferate in the coalfields of Appalachia. Accumulation by dispossession’s characteristics are salient in the region in several ways. The enclosure of the commons, the retail void left by Walmart, the environmental and social degradation caused by

extractive industries has created the perfect conditions for a corporation that picks at the carcasses of small-town America.

### *Food Access Studies and Measurement*

Food access research is conceptually flawed. Most food access research uses the USDA's definition of food access. The USDA identifies food deserts as census tracts in which at least 500 people or 33 percent of the population live more than 1 mile (urban) or more than 10 miles (rural) from the nearest grocery store (Rhone et al. 2017). However, there are a few problems with the USDA's measurement. The USDA measures distance to grocery stores using Euclidean distance (or, "as the crow flies"). Central Appalachia, particularly Eastern Kentucky and Southern West Virginia, is characterized by its winding and mountainous roads. Euclidean distance may not accurately measure travel time for people living in hollers or on mountains which might result in an underrepresentation of low food access census tracts by the USDA. Further, some scholars are critical of the conceptualization of food deserts, food access, and food insecurity and argue that food related problems cannot adequately be addressed by current food access studies (Gordon 2018; Richards 2012; Winegar 2020).

Nationally, dollar stores feed more people than Whole Foods (Mitchell and Donahue 2018), but the USDA does not consider dollar stores in its measurement of food access. This is because "even though some of these store types may sell a variety of healthy foods, they vary widely in the extent of offerings" (Rhone et al. 2017:2). Some researchers have analyzed the food offered by dollar stores compared to that of large grocery stores to determine whether or not their exclusion from the USDA's measurement is valid. Racine et al. (2016) found that SNAP-authorized dollar stores in North Carolina sold healthful food options such as beans, whole-wheat bread, and frozen fruits and vegetables, but they did not offer fresh produce. Coughenour



et al. (2018) uncovered similar findings in their comparison of food options at dollar stores and grocery stores in Las Vegas, but some of the dollar stores in their sample did sell fresh fruits and vegetables. Further, they found that most food items were less expensive at dollar stores than at grocery stores while maintaining similar quality. The authors argue that dollar stores may be beneficial to the food system, especially in low-income areas. In a study focused on stocking of healthful foods in “non-traditional” food retailers, Caspi et al. (2016) found that the dollar stores in their sample did not sell fresh vegetables. Dollar stores had fewer healthful options but did sell shelf-stable healthful foods like canned vegetables and whole-grain cereals. A 2017 study on food shopping in low-income areas of South Carolina found that participants who lived in low food security areas were more likely to rely on convenience or dollar stores for the majority of their food shopping (Ma et al. 2017). These participants were more likely to use public transportation or rely on someone’s car as well.

It is not the presence of highly processed, energy dense, unhealthful foods that disqualify dollar stores as grocery stores; it is the absence (or inconsistency) of fresh produce, lean meats, and other healthful foods. This unveils a critical misunderstanding of what people are buying and eating. Many stores included in the USDA’s data sells the same unhealthful food that dollar stores sell. Proximity to a store that sells healthful food does not equate access to healthful food. Research on food choice and food related health outcomes show us that, even when healthful food is available, people are choosing unhealthful food. Healthful food costs more than unhealthful food (especially in terms of calories per dollar), and often requires much more time to prepare. By not counting dollar stores as grocery stores, the USDA is lacking a fuller understanding of what people eat and where they buy food.

More recent literature, mostly found in the form of doctoral dissertations, critiques the USDA's measurement of food access and previous scholars' conceptualization of the topic. Kasie Richards (2012) argues that the USDA's measurement of food access may result in an underestimation of low food access households. The USDA measures distance to grocery stores with Euclidean distance (or – “as the crow flies”). This type of measurement does not accurately capture the geographical barriers that people living in the mountains face.

Levi J. Winegar (2020) explains and critiques three foundational ideas in food desert discourse:

“Foundational Idea 1: Millions of people live in impoverished neighborhoods that contain no fresh, affordable, healthy food, and this leaves them with little choice but to eat unhealthy food.

Foundational Idea 2: Food deserts are objective, discoverable, and measurable.

Foundational Idea 3: There is a scientific consensus regarding the nature of a healthy diet. A healthy diet features an abundance of fresh fruits and vegetables; modest portions of whole grains, lean meats, and low-fat dairy; and a minimal amount of salt, sugar, and fat – especially saturated fat and trans fat,” (18).

These ideas are taken for granted in most research on food access. The food access studies cited in the above paragraphs use amorphous conceptualizations of “healthful” foods. Winegar (2020) points out that there is no consensus on what foods are “healthful” and what foods are not.

Winegar argues that “it is far from certain that the health of food desert residents is dependent on easy access to conventionally recommended foods, or that increasing access to conventionally recommended foods would make a significant difference to the health of food desert residents” (2020:101).

Like Richards, Winegar is critical of the measurement and categorization of food deserts. He demonstrates that “food desert researchers often rely on data sources that are unreliable and have considerable leeway in their analysis of data,” (2020:101). Data on food deserts varies widely, and there is no clear consensus on what “counts” as a food desert. Further, Winegar explains that there is nothing particularly exceptional about food deserts. Many food desert residents buy their groceries at supermarkets just like non-food desert residents do. They don’t often rely on convenience stores for food, and the junk food they buy is purchased at large stores that also sell “healthful” foods.

Constance Gordon is also critical of the popular conceptualization of “food access” and the USDA’s methodology. Gordon (2018) argues that food access “solutions” are used as justification for gentrification. We understand low food access areas (or food deserts) as empty spaces that need to be filled by markets. These markets do not alleviate hunger and often contribute to worsening the problem.

When researchers discuss food access, food insecurity, and food deserts, they are often (implicitly or explicitly) arguing in favor of market solutions. Terms such as “low food access” and “deserts” imply that these areas are lacking something, thus they argue in favor of gentrification. What these public health and nutrition studies lack is a nuanced and human lens. Sociology can help us understand the bigger problems at play here. Access - or proximity to - healthful foods does not matter much when people are underpaid, overworked, sick, tired, and apathetic.

## **Methods**

I designed a mixed methods project to build an understanding of the relationship between Central Appalachia, food, and Dollar General. The quantitative portion uses data from the US

Department of Agriculture's Food Environment Atlas and SNAP Retailer Locator. The most recent iteration of the USDA Food Environment Atlas (2020) consolidates previously collected census tract level data into county level variables. The 2020 Atlas includes data from the 2010 US Census, Trade Dimensions' TDLinx directory of stores, the USDA's Economic Research Service, the 2006-10 American Community Survey, and the the 2010-14 American Community Survey. Since the USDA does not consider dollar stores as food stores, I used the SNAP Retailer Locator to identify Dollar General locations. The USDA's SNAP Retailer Locator provides a list of every SNAP-authorized store in the US. I reduced this list to stores in Central Appalachia and highlighted Dollar General stores. I retained the list of all stores within the region to make broader comparisons about store availability.

I created a new spreadsheet using relevant variables from Food Environment Atlas. I chose state and county variables based on the Appalachian Regional Commission's definition of Central Appalachia (82 counties in Eastern Kentucky, East Tennessee, Southwest Virginia, and Southern Virginia). I also selected variables that measured the number of grocery stores, supercenters/clubs, convenience stores, and farmers markets in each county.

I cleaned the data, filtering out four cases with missing values (Letcher County, KY; Grainger County, TN; Buchanan County, VA; and Dickenson County, VA). This left 78 cases to analyze. Using SPSS, I ran a correlation matrix on all 18 variables. The findings are reported in the following section.

The qualitative portion of this project uses interview data collected in the fall of 2020. Potential respondents were recruited using a flyer on Facebook and Twitter. The COVID-19 pandemic made finding potential respondents quite difficult, so a convenience sample was used to garner as much interest as possible. Ten open-ended, in-depth interviews were conducted with

eleven people via Zoom or telephone in compliance with COVID-19 pandemic regulations. Phone interviews (6) were audio recorded and Zoom interviews (4) were audio and video recorded, and each interview lasted about forty-five to ninety minutes.

I built an open-ended interview protocol that consisted of three main topics. First, I asked participants about where they were born, where they grew up, and where in Central Appalachia they currently live. Next, I asked questions about food procurement. These questions concerned where participants got food (grocery stores, restaurants, etc.) and what they ate (home cooked meals, prepared foods, etc.). I also asked about gardening, hunting, fishing, and gathering. Finally, if interview participants had not already mentioned Dollar General, I asked if they shopped there, how often, and for what. I also asked questions about participants’ perceptions of Dollar General.

After each interview was completed, respondents answered a short demographics Qualtrics survey. As shown in Table 1, 73 percent of respondents were women, and 91 percent were white. 55 percent live in rural parts of Central Appalachia while 45 percent live in urban or suburban areas. 36 percent responded that they live with children. The median age of respondents was 35 with a range of 20-72.

**Table 1: Respondent Characteristics (n=11)**

<b>Age</b>	<b>Median</b>	<b>Range</b>
	35	20-72
	<b>Frequency</b>	<b>Percent</b>
<b>Gender</b>		
Women	8	73
Men	3	27
<b>Race</b>		
White	10	91
Non-white	1	9
<b>Class</b>		
Working class	7	64
Professional class	4	36
<b>Geography</b>		

Rural	6	55
Suburban/urban	5	45
<b>Children in household</b>		
Yes	4	36
No	7	64

I transcribed and coded each interview and identified common themes. I used an inductive data analysis approach and looked for common themes across interviews. As themes emerged, I created a color-coded key that I used to analyze the interview transcriptions. I followed that up with subsequent rounds of coding into smaller categories until I felt like I had fully analyzed the transcriptions.

### **Quantitative Findings**

Table 2 lists the variables included in the correlational analysis. The “Dollar General” variable was created based on the SNAP Store Locations dataset provided by the USDA Food and Nutrition department (<https://usda-fns.hub.arcgis.com/datasets/USDA-FNS::snap-store-locations>). The other store variables (grocery stores, supercenters/clubs, convenience stores, and farmers markets) come from the USDA Food Environment Atlas (FEA) dataset. These data originated in the same SNAP Store Locations dataset along with the Nielsen directory, TDLinx (Rhone et al. 2017). The Food Environment Atlas describes the differences in stores types as the following:

1. Grocery stores – stores that sell a “general line of food, such as canned and frozen foods; fresh fruits and vegetables; and fresh and prepared meats, fish, and poultry” (USDA 2020)
2. Supercenters/clubs – stores that sell groceries alongside other departments including apparel and home goods (e.g. Walmart, Target)

3. Convenience stores - stores that sell limited (often shelf-stable) food items (e.g. corner stores, CVS)

The rest of the variables in Table 2 are from the USDA Food Environment Atlas (FEA) dataset. “Low access” refers to the “percentage of people in a county living more than 1 mile from a supermarket or large grocery store if in an urban area, or more than 10 miles from a supermarket or large grocery store if in a rural area” (USDA 2020). The “low access and low income” variable combines the “low access” variable with poverty estimates from the 2010-2014 American Community Survey (ACS). Counties were considered low income when they met one or both of the following criteria: “(1) has a poverty rate that is 20 percent or greater, (2) is at or below 80 percent of the greater of Metropolitan Statistical Area (MSA) median family income or the State’s family income if outside of an MSA,” (Rhone et al. 2017). “Low access and no car” combines the “low access” variable with an estimate of households without a car based on data from the 2010-2014 ACS (Rhone et al. 2017). Finally, low access by race was determined using the previously described low access measurement and population data from the 2010 US Census.

“Metropolitan/nonmetropolitan” is a dichotomous variable where 1 = metropolitan county and 0 = nonmetropolitan county. Metropolitan counties are “high-density urban areas containing 50,000 people or more” and “also include outlying counties that are economically tied to the central counties, as measured by the share of workers commuting on a daily basis to the central counties” (USDA 2020). The poverty rate variable refers to the percentage of people living below the poverty threshold (USDA 2020). The FEA defines “persistent poverty” as “counties where the poverty rate of residents was 20 percent or more in the 1980, 1990, and 2000 decennial censuses and the American Community Survey 5-year estimates for 2007-2011; [a dichotomous variable] where 1=persistent-poverty county and 0=otherwise” (USDA 2020).

**Table 2. Descriptive Statistics (n = 78)**

<b>Variable</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>Median</b>	<b>Std. Dev.</b>
<b>County</b>					
<b>State</b>					
<b>Number of stores</b>					
Dollar Generals	0	16	4.41	4.00	3.08
Grocery stores	0	21	4.81	4.00	3.45
Supercenters / clubs	0	3	0.46	0.00	0.72
Convenience stores	0	50	14.14	11.00	10.72
Farmers markets	0	4	0.82	1.00	0.79
<b>Low access</b>					
Low access	0.01	70.68	8.09	5.06	10.25
Low access and low income	0.01	35.18	3.95	2.35	5.06
Low access and no car	1.60	18.56	6.59	6.51	2.74
<b>Low access by race</b>					
White	0.01	69.40	7.75	4.94	9.92
Black	0.00	1.86	0.15	0.02	0.34
Hispanic	0.00	0.81	0.11	0.05	0.17
Asian	0.00	0.52	0.04	0.01	0.08
American Indian / Alaskan Native	0.00	0.12	0.02	0.01	0.03
Hawaiian / Pacific Islander	0.00	0.05	0.00	0.00	0.01
Multiracial	0.00	1.02	0.14	0.07	0.20
<b>Metropolitan / nonmetropolitan</b>	0	1	0.17	0	0.38
<b>Poverty rate</b>	15.40	46.80	26.08	25.00	6.57
<b>Persistent poverty</b>	0	1	0.60	1.00	0.50

As seen in Table 3, there was a positive, significant (0.26\*) relationship between number of Dollar General stores and low food access counties. Counties with lower food access were more likely to have more Dollar General stores. This is unsurprising considering Dollar General’s intentional growth in communities that have few food-store options. This relationship was stronger for non-white populations and strongest for the American Indian/Alaskan native population: white (.25\*), Black (.31\*\*), Hispanic (.33\*\*), Asian (.40\*\*), American Indian/Alaskan native (.50\*\*), Hawaiian/Pacific Islander (.26\*), and multiracial (.34\*\*). Again, this relationship is unsurprising given the company’s predatory practices.



The relationship between number of grocery stores and low access counties was not significant overall but was significant low access Black (0.27\*), Asian (0.34\*\*), and American Indian/Alaskan native (0.33\*\*) populations. The relationships between number of supercenters/clubs (0.29\*), number of convenience stores (0.30\*\*), and number of farmers markets (0.24\*) and low access counties were all significant and varied in strength across race. The strongest of these relationships were supercenters/clubs (0.50\*\*) and convenience stores (0.56\*\*) and the low access Asian population. It is possible these relationships can be explained by metropolitan/nonmetropolitan status. Metropolitan areas, which have a higher demand for more stores based on their higher population sizes, most likely have more racially diverse populations than nonmetropolitan parts of Central Appalachia.

The relationships between number of Dollar Generals and number of other types of stores (grocery stores, 0.71\*\*; supercenters/clubs, 0.62\*\*; and convenience stores, 0.80\*\*) were significant and strong. Based on these relationships, it seems that Dollar General stores are often found in the same places as other types of stores. Given the huge number of Dollar Generals in the US (over 17,000), it seems that Dollar General stores may be just as common in places that have a variety of stores as places that have few choices.

The relationships between number of Dollar General stores and poverty rate and persistent poverty were negative but not significant. This compared to the positive significant relationship between number of Dollar General stores and low access counties highlights the differences in conceptualization of poverty and food access. The two terms are not mutually exclusive; very wealthy people who live in intentionally isolated communities may be considered “low access” despite having the means to get whatever food they want or need.

**Table 3. Correlation Matrix**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
<b>1. # of DG</b>	1																	
<b>2. # of GS</b>	.71 **	1																
<b>3. # of SC / clubs</b>	.62 **	.50 **	1															
<b>4. # of CS</b>	.80 **	.74 **	.70 **	1														
<b>5. # of FM</b>	.29 *	.30 **	.31 **	.42 **	1													
<b>6. LA</b>	.26 *	.18	.29 *	.30 **	.24 *	1												
<b>7. LA and LI</b>	.23 *	.13	.25 *	.21	.17	.98 **	1											
<b>8. LA no car</b>	- .22	-.09	- .28 *	- .27 *	- .09	- .12	- .04	1										
<b>9. LA white</b>	.25 *	.17	.27 *	.28 *	.23 *	.99 **	.98 **	- .11	1									
<b>10. LA Black</b>	.31 **	.27 *	.34 **	.47 **	.34 **	.33 **	.28 *	- .06	.30 **	1								

<b>11. LA</b>	.33	.21	.37	.41	.20	.72	.67	-	.70	.70	1							
<b>Hispanic</b>	**		**	**		**	**	.13	**	**								
<b>12. LA</b>	.40	.34	.50	.56	.37	.57	.46	-	.54	.50	.57	1						
<b>Asian</b>	**	**	**	**	**	**	**	.19	**	**	**							
<b>13. LA</b>	.50	.33	.27	.46	.18	.67	.61	-	.66	.38	.64	.64	1					
<b>AIAN</b>	**	**	*	**		**	**	.19	**	**	**	**						
<b>14. LA</b>	.26	.17	.15	.28	.20	.23	.18	-	.22	.24	.35	.25	.41	1				
<b>HPI</b>	*			*		*		.06		*	**	*	**					
<b>15. LA</b>	.34	.22	.45	.44	.24	.86	.82	-	.85	.53	.87	.71	.67	.29	1			
<b>multi</b>	**		**	**	*	**	**	.18	**	**	**	**	**	*				
<b>16.</b>	.06	.18	.10	.26	.14	.19	.08	-	.19	.04	.15	.20	.33	.27	.17	1		
<b>Metro /</b>				*				.25					**	*				
<b>nonmetr</b>								*										
<b>o</b>																		
<b>17. %</b>	-	-.14	-	-	-	-	-	.71	-	.05	-.50	-	-	-	-.17	-	1	
<b>pov.</b>	.17		.24	.33	.37	.19	.09	**	.19			.21	.20	.18		.33		
			*	**	**											**		
<b>18.</b>	-	-.21	-	-	-	-	.04	.43	-	-	-.10	-	-	-	-.11	-	.65	1
<b>Persisten</b>	.11		.21	.36	.32	.07		**	.06	.20		.18	.15	.21		.41	**	
<b>t pov.</b>			**	**	**											**		

\* p < .05, \*\* p < .01

DG = Dollar General, GS = grocery stores, SC = supercenters, CS = convenience stores, FM = farmers market LA = low access, LI = low income, AIAN = American Indian/Alaskan native, HPI = Hawaiian/Pacific Islander

## **Qualitative Findings**

My analysis reveals that the respondents in my sample perceive Dollar General as a necessary evil in their community. Several people compared the store to the coal industry, citing exploitative profit-motivated practices. Others were concerned with the quality of food sold at Dollar General and felt that the company contributes to negative health outcomes. Some suburban respondents were surprised to learn that Dollar General sells some “real” (i.e. not junk) food such as whole grains and frozen vegetables. Respondents were less concerned about food access (as defined by the USDA) and more concerned with issues such as vehicle reliability, poverty, and time poverty.

### *Food and store choices*

When asked what motivates them to make specific food choices, most respondents indicated that convenience factor was most important followed by nutrition and health outcomes, children’s and partners’ tastes, and personal preference. All the respondents in my sample emphasized the importance of nutrition and health outcomes, however, this was most salient among women married to men and single men. Ben, a single man in his mid-thirties, said that his diet has changed significantly over the past couple of years as he has grown more cautious of maintaining his health. He explained that he has shifted from a diet heavy in sodas and fast food to a more plant-based diet. Most of the women married to men were primarily concerned with their husbands’ health. Michelle explained that she used to prepare meals based solely on her husband’s and son’s preferences for red meat. Now that her son is out of the house and she and her husband are older, she tries to cook heart-healthy meals for her husband’s health. When I asked her what she cooks for herself, she hesitated then said that she cooks what her husband

likes and what is good for him. Single women were also concerned with making healthful food choices, but they were less emphatic about the point.

Convenience was the most highly prioritized food choice motivator. Respondents often seemed ashamed to admit that they buy any type of packaged food, usually because of the stigma surrounding processed foods. Susan said, “Usually I cook dinner four nights a week, and then we have...freezer foods or whatever on the fifth night. I know it ain’t good, but we both work, so we need a break by the end of the week.” Michelle gave a similar answer. “I know it isn’t good for you, but I do get some meats and stuff frozen. I try not to as much anymore, but sometimes I don’t have a choice. You just don’t feel like cooking after working all day.” This sense of shame associated with packaged food wasn’t limited to foods that are generally considered unhealthy. For example, Ben said, “I’m embarrassed to admit this, but I’m kind of the guy that would spend a few extra dollars getting the pre-diced up watermelon as opposed to buying the whole watermelon.” This quote illustrates that even when it is a food considered healthful by most people’s standards, there is shame associated with convenience foods. Although almost all the respondents in my sample reported buying some form of convenience foods, they all expressed guilt about it.

Respondents answers about food choice motivators were generally similar across class and geography (i.e. rural versus suburban status), but differences in store choices were apparent across these categories. Rural respondents reported shopping primarily at Walmart and Food City and, less often, IGAs, whereas suburban respondents had lists of several stores they shop at including Aldi, Kroger, Trader Joe’s, and Whole Foods. More affluent suburban respondents emphasized shopping at Whole Foods, local butchers, and bakeries while less affluent suburbanites emphasized budget-friendly stores like Aldi.

Class and geographic location were most salient in *how* respondents spoke about shopping. One example of this was how respondents' shopping habits changed due to COVID-19 regulations. Barbara, a wealthy, suburban respondent, said that she shops at locally owned shops for most food, and for everything else, she travels to another city that has a Whole Foods. The pandemic affected her shopping routine on an emotional level. She enjoys taking her time and thoroughly browsing store shelves. Social distancing regulations required her to make her shopping trips short. Otherwise, her food was largely unaffected by the pandemic. She happily reported that her local producers were able to continue selling while large chains had empty shelves. Frank, a middle-class, rural respondent, explained that he shops at Walmart because it is close to his job. When probed about this, he spoke matter-of-factly, explaining that Walmart was the only practical choice for him and his family. The pandemic complicated his grocery shopping routine. Walmart reduced its hours and started closing before he got off work. He and his wife had to adjust their schedules so that one of them was able to go during the reduced hours.

*“Access” isn't the problem*

Although other rural areas experience food related problems (e.g. hunger, insecurity, negative health outcomes), Central Appalachia's history of industry exploitation heightens these challenges. Respondents cited vehicle reliability, low food diversity and quality, poverty, and time poverty as major food related problems in the region. In terms of food diversity and availability, Moe explained that people in Central Appalachia don't know what they are missing in terms of cooking. He values traditional Appalachian meals like soup beans and cornbread, but he thinks that today, many people are buying fast food or processed boxed and frozen foods. He did not blame individuals for this problem though. He argued that people are too tired and overworked to learn how to prepare healthful, homecooked meals. Barbara echoed this

observation. She said that many “bad” food choices are not really choices – they are habits formed by poverty and exhaustion.

Some respondents reported that vehicle reliability is a major hinderance for some people. Susan told me about her friend who lives in an apartment complex in a poor area of a rural county. “She don’t have a car. Once, twice every couple weeks her and her neighbors go together to [neighboring county] to Walmart. She gives a little for gas money and they all go together because only one of them has a car.” Although none of the respondents in my sample reported vehicle reliability as a personal issue, most of them knew someone who deals with that problem. Michelle explained that, although her mother and brother own a vehicle, she still does their grocery shopping for them because they are unable to drive. It is not simply the issue of *owning* a vehicle but owning an *operating* vehicle, paying for gas, and having a driver’s license.

Most respondents compared Appalachia’s food problems to the region’s other major social problems and cited the decline in the coal industry as the dominate cause. Without being prompted to do so, respondents explained how coal companies devastated the region, leaving little opportunity for economic growth. When asked to describe the social problems in Eastern Kentucky, Ben said, “The legacy of mountaintop removal coal mining and what it has done to land and water and air and people’s homes, people’s health and the fallout with the bottoming out of the coal industry. It’s left a lot of people on the hook.” Similarly, Tracy said, “Well, I guess that’s what happens when you live in a place where you can’t drink the water and you can’t grow nothing. You know you can’t grow nothing. Not like when I was growing up. That’s another thing they [coal companies] took from us. So nowadays you just eat whatever you can get cheap.” These quotes show the lasting effects coal mining have had on the region and its people.

It is noteworthy that every participant, regardless of class, age, or rural/suburban residence, brought up the impact of the coal industry without being asked to do so. The environmental degradation caused by the industry is omnipresent, and people living in Central Appalachia are eager to discuss it. Gloria said, “Before moving here, I really didn’t know how bad it was. I mean, you hear about mines collapsing or whatever sometimes, but you just can’t know what it’s like ‘til you see it. You know, the color of the water, the rockslides – it’s not just what happens *in* the mines.” Barbara said, “The coal mines - you know, they got what they wanted. And then they just left. And they left you with the poisoned water and the poisoned air and failing housing, no jobs. You can’t fund your schools, so your kids don’t have a good future. So getting three loaves of bread for five dollars, yeah okay, we’ll eat good for the next few days. We can eat. I think that that’s a part of it. It’s a very sad part. Makes me really screaming, raging angry sometimes.” Gloria and Barbara’s quotes illustrate how deeply people are affected by the legacy of coal mining.

#### *Dollar General – A necessary evil*

Opinions on Dollar General also differed across class and geography. When asked if they shop at Dollar General, many respondents living in more suburban parts of the region laughed. Jackie scoffed and said, “No. No. No, I’ve never gone in there for food. I think I went there once to get craft supplies, but I – do they sell food? Other than boxed crap?” I asked Jackie if she knows anyone who does shop at Dollar General for food, and again, she scoffed and quickly responded “no.” However, after some thought, she explained that there are “probably” people in “other parts” of her town that do rely on Dollar General for food. Jackie lives within walking distance to several grocery stores and admitted that some people do not have that privilege.



Britney, who lives in a rural area, reacted quite differently to being asked if she shops at Dollar General. She explained that, although she doesn't rely on the store, she and her husband buy staples such as bread and milk there when they run out, rather than making the forty-five-minute trip to Walmart. Britney and her family buy most of their groceries at Walmart but use Dollar General as a stopgap. She said that she knows people who live in more isolated areas who rely on the store for almost all their groceries.

Class differences were even more apparent. Lower-class respondents (currently or in the past) described Dollar General as a place to buy essentials relatively cheaply (though some people said their prices aren't actually cheap) or conveniently whereas wealthier respondents were strongly opposed to the idea of shopping there.

Respondents from all classes and locations indicated that Dollar General is exploitative. Michelle explained that, although she doesn't shop for her own food there, her elderly mother and brother refused to shop anywhere else. "They think it's cheaper. It isn't. I've told them that. But they keep telling me to get their stuff there. I tell them I can get it cheaper at Walmart or Food City, but they won't listen to me." Michelle's experience highlights Dollar General's marketing tactics. Because the company targets working class and poor shoppers, their success hinges on their ability to convince people that they will save money shopping at Dollar General.

#### *A different kind of market solution*

The respondents in my sample indicated that the food access, food insecurity, and food quality are caused by inefficient food systems. Some said that such problems would be alleviated through gardening and nutritional education, but even they admitted that these are large problems that cannot be solved on an individual basis. Others felt that individuals should be taught to make good food choices (e.g. choosing cooking over buying fast food) but that, ultimately, individuals

don't have the power to make massive changes to the food system. Michelle spoke at length about how she wishes things would return to how they were when she was young. When asked what changes she thinks need to happen, she hesitantly said, "This will sound bad, but I think something needs to go wrong. Like the power grid failing or something. Something so that people have no choice but to be self-reliant again. I think that's the only way to fix it." She spoke about this topic delicately but matter-of-factly. Frank gave a similar answer. "I don't think things will change unless people know how to do stuff for themselves. But when are people supposed to learn how to grow their own food? My parents didn't have time teach me none of that. It's gonna take a much, much bigger change. Hell, this pandemic ought to teach people the supply chain can fail at any time!" Like Michelle, Frank implied that something drastic has to happen for any positive changes to occur.

## **Discussion**

The correlational analysis of data from the USDA Food Environment Atlas shows that there is a significant relationship between low access counties and number of Dollar Generals. However, this relationship also exists between low access counties and number of other types of stores. This is evidence that "access" (as defined by the USDA) does not really matter. It is a flawed concept that does not even begin to paint a clear understanding of hunger and food procurement problems. My interviews with people in Central Appalachia show that there are more important factors to consider when trying to understand these problems such as vehicle reliability, poverty, and time poverty.

Despite differing socioeconomic statuses, there was an overall sense of class solidarity across my interviews. Their motives may have been slightly different (more affluent respondents wished to see other people buying artisanal foods, and low-income respondents were just trying

to survive without burning out), but ultimately, they were yearning for the same thing – control over their food for the sake of their health and their families health. Convenience was the most important motivating factor in their food choices, but they did not want that to be true. There was tension between their need for convenience and their desire for nutritional value.

Dollar General is aware of these problems and profits from them. They rely on an economy that keeps people poor and tired. This is particularly significant in Central Appalachia where the economy and environment are marked by the history of coal mining. The enclosure of the commons, the rolling back of welfare programs, and the increasingly globalized economy contribute to the Dollar General-ification of the region, making this an example of David Harvey's theory of accumulation by dispossession. Responses from my interview participants support this claim. Participants compared Dollar General's exploitative practices to those of the coal industry and argued that, although the company does serve some people, it is ultimately part of the problem.

The relationship between Central Appalachia, food, and Dollar General is more complicated than labeling the region as "low food access." It is clear that "food access" studies do not go far enough in determining the causes and potential solutions to food related problems. Such research is framed as health outcome motivated, often citing obesity and heart disease as epidemics that can be slowed through increased access to healthful foods. However, increased proximity to USDA defined grocery stores does not necessarily mean that people can afford to buy healthful foods, nor do they necessarily have the time needed to prepare such foods. Furthermore, it is not up to scholars and researchers to determine what is and is not "healthful" when there has never been a consistent definition of "healthful" foods. As the respondents in my

sample indicated, if we want to see actual positive changes in terms of food and hunger, we must fight for large, systemic changes.

### *Limitations*

The qualitative portion of this project was severely limited by the COVID-19 pandemic. I wanted to recruit potential respondents in person at community events, but unfortunately, that was not possible. In-person recruiting would have allowed me to target specific areas, making for a more diverse sample. Many potential respondents reached out to me, indicating interest in participating, but they were located too far outside of my population area to be eligible. Had I been able to recruit in person, I think I would have a larger and more robust sample. I also wanted to visit Dollar General stores in Central Appalachia to take pictures to include in this paper, but the pandemic prevented that as well. I now plan to do that in a future project.

## References

- Aubrey, Allison. 2019. "Dollar stores and food deserts." CNN, December 8. Retrieved January 21, 2021 (<https://www.cbsnews.com/news/dollar-stores-and-food-deserts-the-latest-struggle-between-main-street-and-corporate-america/>).
- Bell, Shannon Elizabeth, and Yvonne A. Braun. 2010. "Coal, Identity, and the Gendering of Environmental Justice Activism in Central Appalachia." *Gender & Society* 24(6):794–813. doi: 10.1177/0891243210387277.
- Bell, Shannon Elizabeth, and Richard York. 2010. "Community Economic Identity: The Coal Industry and Ideology Construction in West Virginia: Community Economic Identity." *Rural Sociology* 75(1):111–43. doi: 10.1111/j.1549-0831.2009.00004.x.
- Bell, Shannon Elizabeth, and Richard York. 2012. "Coal, Injustice, and Environmental Destruction: Introduction to the Special Issue on Coal and the Environment." *Organization & Environment* 25(4):359–67. doi: 10.1177/1086026612468138.
- Bodenhamer, Aysha. 2016. "King Coal: A Study of Mountaintop Removal, Public Discourse, and Power in Appalachia." *Society & Natural Resources* 29(10):1139–53. doi: 10.1080/08941920.2016.1138561.
- Bodenhamer, Aysha, and Thomas E. Shriver. 2020. "Environmental Health Advocacy and Industry Obstruction: The Case of Black Lung Disease." *Rural Sociology* 85(3):757–79. doi: 10.1111/ruso.12319.
- Brown, Karida. 2018. *Gone Home: Race and Roots Through Appalachia*. Chapel Hill, NC: University of North Carolina Press.
- Caspi, Caitlin Eicher, Jennifer E. Pelletier, Lisa Harnack, Darin J. Erickson, and Melissa N. Laska. 2016. "Differences in Healthy Food Supply and Stocking Practices between Small Grocery Stores, Gas-Marts, Pharmacies and Dollar Stores." *Public Health Nutrition* 19(3):540–47. doi: 10.1017/S1368980015002724.
- Chapman, Angela M., and Harold A. Perkins. 2019. "Malign and Benign Neglect: A Local Food System and the Myth of Sustainable Redevelopment in Appalachia Ohio." *Agriculture and Human Values* 37(1):113–27. doi: 10.1007/s10460-019-09976-5.
- Coughenour, Courtney, Timothy Bungum, and M. Regalado. 2018. "Healthy Food Options at Dollar Discount Stores Are Equivalent in Quality and Lower in Price Compared to Grocery Stores: An Examination in Las Vegas, NV." *International Journal of Environmental Research and Public Health* 15(12):2773. doi: 10.3390/ijerph15122773.
- Das, Raju. 2017. "David Harvey's Theory of Accumulation by Dispossession: A Marxist Critique." *World Review of Political Economy* 8(4):590. doi: 10.13169/worlrevipoliecon.8.4.0590.

- Drichoutis, Andreas C., Rodolfo M. Nayga, Heather L. Rouse, and Michael R. Thomsen. 2015. "Food Environment and Childhood Obesity: The Effect of Dollar Stores." *Health Economics Review* 5(1):37. doi: 10.1186/s13561-015-0074-2.
- Gordon, Constance. 2018. "Troubling 'Access': Rhetorical Cartographies of Food (In)Justice and Gentrification." PhD Dissertation, Department of Communications, University of Colorado.
- Gustafson, Alison A., Sarah Lewis, Corey Wilson, and Stephanie Jilcott-Pitts. 2012. "Validation of Food Store Environment Secondary Data Source and the Role of Neighborhood Deprivation in Appalachia, Kentucky." *BMC Public Health* 12(1):688. doi: 10.1186/1471-2458-12-688.
- Harvey, David. 2003. *The New Imperialism*. Oxford: Oxford University Press.
- Harvey, David. 2005. *A Brief History of Neoliberalism*. Oxford: Oxford University Press.
- Harvey, David. 2006. "Comments on Commentaries." *Historical Materialism* 14(4):157–66.
- Hayes, Lauren A. 2018. "Mobile and Temporary: Women and Workplace Precarity in Appalachian Kentucky." *Journal of Appalachian Studies* 24(1):26. doi: 10.5406/jappastud.24.1.0026.
- Hitt, Jack. 2011. "The Dollar-Store Economy." *The New York Times Magazine*, n.p.
- Hufford, Mary. 2002. "Reclaiming the Commons: Narratives of Progress, Preservation, and Ginseng." Pp. 100–120 in *Culture, Environment, and Conservation in the Appalachian South*. Chicago: University of Illinois Press.
- Jithitikulchai, Theepakorn, Wesley R. Dean, and Joseph R. Sharkey. 2012. "Variations in the Availability and Price of Healthier Food Options by Store Type and Urban–Rural Setting." *Journal of Hunger & Environmental Nutrition* 7(4):381–400. doi: 10.1080/19320248.2012.735218.
- Kleckler, Abby. 2020. "How Dollar General Keeps Growing." *Progressive Grocer*, March 12, n.p.
- Lohnes, Joshua, and Bradley Wilson. 2018. "Bailing out the Food Banks? Hunger Relief, Food Waste, and Crisis in Central Appalachia." *Environment and Planning A: Economy and Space* 50(2):350–69. doi: 10.1177/0308518X17742154.
- Ma, Xiaonan, Angela D. Liese, James Hibbert, Bethany A. Bell, Sara Wilcox, and Patricia A. Sharpe. 2017. "The Association between Food Security and Store-Specific and Overall Food Shopping Behaviors." *Journal of the Academy of Nutrition and Dietetics* 117(12):1931–40. doi: 10.1016/j.jand.2017.02.007.

- Mitchell, Stacy, and Marie Donahue. 2018. "Report: Dollar Stores Are Targeting Struggling Urban Neighborhoods and Small Towns. One Community Is Showing How to Fight Back." *Institute for Local Self-Reliance*, December 6, n.p.
- Otero, Gerardo. 2018. *The Neoliberal Diet: Healthy Profits, Unhealthy People*. Austin, TX: University of Texas Press.
- Rhone, Alana, Michele Ver Ploeg, Chris Dicken, Ryan Williams, and Vince Breneman. 2017. "Low-Income and Low-Supermarket-Access Census Tracts, 2010-2015." *US Department of Agriculture* 21.
- Richards, Kasie. 2012. "As the Crow Flies: An Underrepresentation of Food Deserts in the Rural Appalachian Mountains." PhD Dissertation, College of Public Health, East Tennessee State University.
- Sharkey, Joseph R., Scott Horel, Daikwon Han, and John C. Huber. 2009. "Association between Neighborhood Need and Spatial Access to Food Stores and Fast Food Restaurants in Neighborhoods of Colonias." *International Journal of Health Geographics* 8(1):9. doi: 10.1186/1476-072X-8-9.
- Shrestha, Sriya. 2016. "Dollars to Dimes: Disparity, Uncertainty, and Marketing to the Poor at US Dollar Stores." *International Journal of Cultural Studies* 19(4):373–90. doi: 10.1177/1367877913515869.
- Smith, Barbara Ellen. 2015. "Another Place Is Possible? Labor Geography, Spatial Dispossession, and Gendered Resistance in Central Appalachia." *Annals of the Association of American Geographers* 105(3):567–82. doi: 10.1080/00045608.2014.924731.
- Stump, Nicholas. 2016. "Food Deserts In Appalachia: A Socio-Economic Ill and Opportunities for Reform." *SSRN Electronic Journal*. doi: 10.2139/ssrn.3523374.
- Thatcher, Esther, Cassandra Johnson, Shannon N. Zenk, and Pamela Kulbok. 2017. "Retail Food Store Access in Rural Appalachia: A Mixed Methods Study." *Public Health Nursing* 34(3):245–55. doi: 10.1111/phn.12302.
- Turner, Jr., Cal. 2018. *My Father's Business*. New York, NY: Center Street Hatchet Book Group.
- USDA. 2020. "Food Environment Atlas Documentation." *USDA Economic Research Service*. Retrieved March 23, 2021 (<https://www.ers.usda.gov/data-products/food-environment-atlas/documentation/>).
- Winegar, Levi J. 2020. "Mirage of Understanding: Challenging the Dominant Perspective in Food Desert Discourse." PhD Dissertation, Department of Geography and Atmospheric Studies, University of Kansas.