

Availability and Accessibility: A Look at Inequality in Food Retail in Memphis, Tennessee

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Abstract:

This paper looks at the grocery gap in Memphis, Tennessee, and concludes that individuals from different areas and in different socioeconomic circumstances do not experience equal availability or accessibility when it comes to the grocery industry there. Research into availability within three representative neighborhoods (Berclair, Cooper Young and Castalia, and Whitehaven) found differences in product variety yet minimal geographic price discrimination. Findings about accessibility include an extension of price sensitivity to the entire relationship between individuals and local stores, the impact of location and mobility, and a perceived lack of viable alternatives to Kroger.

Key words: grocery gap, supermarkets, food insecurity, retail inequality, geographic price discrimination, accessibility, urban grocery markets

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Introduction

The grocery gap is a phenomenon by which food and other groceries, and specifically affordable, quality versions of these, are not equally available and accessible to all members of society. Some groups, particularly those in urban neighborhoods which are predominantly poor or comprised of minorities, experience higher barriers to obtaining necessary products. This can be measured in many ways: number and size of nearby grocery stores, products and prices within those stores, or other factors such as relative lack of alternatives and information. The fundamental components of the problem are availability, which comes down to the different levels of choice provided to different customers, and accessibility, which includes social and economic conditions that cause individuals to experience very different results when dealing with the same industry and similar availability.

This study attempts to provide answers specifically about grocery variety and price and the perceptions of neighborhood residents and store managers. The research aims to inform the academic discussion about food access and market issues, as well as to serve individuals living in Memphis who are interested in how distinct patterns of food retail and grocery inequality play out in their city. Ultimately, the grocery gap is an important issue that lies at the intersection of food insecurity, which is part of a bigger picture about hunger and health in our culture, and under-retailed neighborhoods, which result from market decisions about what customers and geographic areas are most valuable. Moreover, the grocery gap is intimately connected to other critical issues like health, geography, community development, transportation, and many more.

The following article begins with a literature review to provide context about the grocery industry and key factors such as location and price which prevent equal interaction with the industry. A subsequent section will inform the reader more specifically about Memphis, including why the city is such a fitting place to research the grocery gap, and the three neighborhoods (Cooper Young and Castalia, Berclair, and Whitehaven) which were used as study areas. After elaborating on methodology, this paper will discuss core findings: grocery availability as determined by store audits, and then grocery accessibility as measured with resident and manager interviews. A conclusion will follow with points about study significance and limitations.

Literature Review

The Grocery Industry

The grocery industry in the United States is part of a growing chain in the diverse realm of food retail which daily affects the lives of all people. The average customer visits a grocery store more than once a week and prepares a majority of meals at home, and despite typical net profit hovering around only one to two percent of revenues, last year the industry reached 650 billion dollars in total sales (Supermarket Facts and U.S. Grocery Shopper Trends 2015 Executive Summary, *Food Marketing Institute*). Interestingly, there are numerous similarities between these grocery stores now and those a century ago, and the current state of constant change in food retail is by no means a new phenomenon (Ellickson, 2011). The major players, formats, and patterns which make up the modern grocery industry all date back generations, even those such as Whole Foods and other natural stores which we associate with more recent headlines (Ellickson, 2011). In addition, thanks to demographic and lifestyle shifts which

fundamentally alter the ways we obtain and consume food, the customers of grocery stores are changing just as rapidly as the industry itself. For example, as social structures like marriage and gender roles evolve, there are more instances of shared shopping, where no one individual takes responsibility for providing groceries for the family, and there is a higher proportion of male shoppers (see U.S. Grocery Shopper Trends 2015 Executive Summary). All this means that grocery stores must pay attention to how the attitudes and behaviors of individuals translate into overarching trends that affect both society and the food industry.

Along these lines, we can better understand the grocery industry by taking note of three more factors: channels, promotions, and acquisitions. In just a few years, shoppers have become less able to identify a primary store and prefer instead to frequent about 2.5 different channels, or paths of goods from producers to consumers (U.S. Grocery Shopper Trends 2015 Executive Summary). Sales promotions, or activities such as sales and specials that advance products, account for about 20 percent of total sales, yet supermarkets usually spend 80 percent of the week managing them (Bolton, Shankar, & Montoya, 2010). However, stores that stock a greater variety of brands or target price-sensitive customers could benefit from reducing promotions (Bolton et al., 2010). Finally, stores that combine with (merge) or buy out (acquire) other stores are consolidating the chains of retail and “shaking up the competitive landscape” (Ellickson, 2011, p. 2). All this will be relevant to later discussion about how Kroger has dramatically affected both residents and the entire arena of food retail in Memphis.

Because this study takes place in one of the country’s larger metropolitan areas, also relevant are the distinct features of the grocery industry in these places. Mitrea and Kyamakya (2016) argue that many of the significant challenges that cities face today, such as traffic, pollution, and other social problems, stem directly from the disorganized travels of thousands if

not millions of consumers to supermarkets and food stores. The stores themselves must contend with logistical obstacles related to the inherent difficulty of retailing food in an urban area, such as the higher rates on insurance and utilities, red tape from zoning restrictions and local politics, and lack of open plots with the necessary 50 thousand or more square feet (see Zhang and Ghosh, 2016). In addition, investment may come from individuals not familiar with the diverse wants and needs of racially and ethnically diverse populations. In comparison, “perceived urban obstacles” stem from assumptions about demographics and other circumstances in the inner parts of cities, such as higher crime rates and lower profitability due to less wealthy customers who buy less (Zhang and Ghosh, 2016). Although based in reality, these assumptions align with and contribute to the idea that cities are poor markets simply because their populations tend to be non-white with concentrated poverty (Zhang and Ghosh, 2016).

This connects to an important point for analysis of the grocery gap, as well as a wide range of related subjects, namely that stores tend to fall in line with and even exacerbate existing social structures and institutions. James Heckman, a leading economist and Nobel laureate, has said, “Some want to believe that markets by themselves will solve problems like racial disparity. Markets do many useful things, but they did not solve the problem of race. Not in America.” (qtd. in Ayres, 2007, p. 709). The comment demonstrates, similar to the presentation of the grocery gap in this paper, that retail maps onto constructions such as race and class and that industry is a human creation susceptible to biases and other problems. In the end, we need to pull knowledge from a variety of fields such as economics and business as well as sociology and anthropology to understand how individual resources and decisions interact with the market to determine how or to whom groceries and other goods are allocated.

Spatial Discrimination

This brings us to the next category of relevant literature: problems which prevent equal participation of all individuals in the grocery industry, despite the fact that all individuals rely on food and groceries for survival. Food deserts are geographic areas where there is minimal food that is both healthy and affordable. Less known are food swamps, which can be located within food deserts but are places where unhealthy foods (those high in calories, sodium, and sugar) vastly outnumber other choices. Both arrangements can be measured by location and number of stores as well as product variety and prices within those stores. The issue goes far beyond grocery stores, and a whole host of factors can persuade businesses that some markets, such as inner cities, are less valuable. These areas are likely to experience lasting food insecurity unless mitigation takes place, such as with community gardens, more fresh produce in corner stores, or comprehensive policy efforts (Bader et al., 2010).

In 2010, representatives of PolicyLink and The Food Trust conducted a meta-analysis of 132 studies from the past twenty years on access to healthy food in the United States. Some of their conclusions are especially relevant here. When looking at food retail by census tract, those labeled “low income” had only half as many supermarkets as those considered “wealthy”, and less than a tenth of black residents had a supermarket in their census tract, while almost a third of white residents did (Treuhft and Karpyn, 2010). Other times the discrepancy was more subtle, as seen in one case where 80 percent of non-white individuals could not find milk that was low in fat or bread that was high in fiber in their neighborhoods (Treuhft and Karpyn, 2010). Also of particular note for the remainder of this study is that individuals with greater access to healthy food consume more healthy food on average. This might seem like a somewhat obvious conclusion, but it is meaningful that, even controlling for income, race, level of physical activity,

and other factors, diseases related to diet such as obesity and diabetes were higher among people living in the “least healthy food environments” (Treuhaft and Karpyn, 2010, p. 8).

One aspect of why food deserts and swamps are such a significant phenomenon is that they can form in a myriad of ways. Historical context is essential, as seen in the way that grocery stores as early as the 1930s took advantage of better technology for transportation and storage to begin building larger stores, which would no longer deliver, on the edges of town (Ellickson, 2011). Then, when a number of cities expanded during the 1960s and 1970s and experienced white flight (white, middle-class families moving from urban centers to the surrounding suburbs), many grocery stores traveled outward as well to retain these customers who were less sensitive to price (Treuhaft and Karpyn, 2010). Food deserts and swamps also result from current decisions on the part of stores about where to locate. Redlining is the “spatially discriminatory practice” in which grocery stores and other retailers do not locate in or serve some places, not because of hard economic criteria such as profitability, but based on the characteristics of the resident population such as race or ethnicity (D’Rozario and Williams, 2005, p. 176). This is completely legal for retail markets (unlike in other industries) and can be quite subtle, as seen in the way that firms may open stores all around but not within certain neighborhoods, or treat stores in an area negatively, again based on demographics rather than just economic concerns (D’Rozario and Williams, 2005).

Along the same lines, supermarkets and grocery stores sometimes move into neighborhoods but then suddenly relocate. They may even push out local retailers in the process, leaving whole areas vacant and at the mercy of a small number of remaining retailers who usually have less desirable goods and prices. The process has been repeated so often that “across the nation, community groups and elected officials are beginning to cry foul” (Briggs, 2005). In

addition, often unfortunately for neighborhood residents, non-compete clauses and restrictive covenants are often used in the grocery industry to limit competition (Briggs 2005). These ensure that similar businesses are less able to locate nearby at the same time and significantly that other food retailers cannot use the same space, even when no longer occupied. The pattern shows that certain social structures continue to actively allow stores to prioritize areas such as suburbs which are predominantly white and wealthier over other areas such as inner parts of cities which are more ethnically diverse with higher rates of poverty.

Price Discrimination

Because a valid part of the definitions above is availability of not just healthy but also affordable food, another set of related literature focuses on discriminatory pricing. This is the act of selling similar goods at different costs to different buyers, but the definition can also include charging the same price for lesser goods (Machlup, 1955). Third-degree price discrimination is all about utilizing differences between types of consumers such that these buyers are stuck with the differential prices, including because they are located in separate geographic areas (Machlup, 1955). Some experts claim that the practice always results in misallocation, but others contend that it can improve social welfare and attract target customers. Interestingly enough, the Food Stamp Plan, now known as the Supplemental Nutrition Assistance Program (SNAP), is technically an attempt by officials to assist certain groups through such discriminatory pricing (Machlup, 1955).

What causes all this? Robert Masson (1973) maintains that prejudiced sellers cause the groups against which they discriminate to pay more on average, even if these sellers make up a small part of the market, even if other sellers do not charge discriminatory prices, and even if the

groups discriminated against spend time searching out better prices. Although Masson is definitely not writing about food retail, his theoretical framework is worth considering. Essentially, if some price quotes are higher for, say, black buyers than for white buyers, then black buyers “face a lower probability” of finding prices below a certain amount (Masson, 1973, p. 172). Moreover, because minorities usually have lower elasticities, meaning their demand is less directly responsive to price, retailers can charge them higher prices without fearing the same drops in sales as they would from other groups of customers (Masson, 1973). However, differential pricing in an area could be reduced if more buyers exchanged “intracommunity” information and engaged in frequent communication about the costs experienced by different people and places (Masson, 1973). In addition, there is disagreement about how biased sellers would actually perform, with some experts arguing the likelihood of their survival and others pointing out their tendency to lose money in the long run (Shapiro, 1974; Masson, 1973).

On the other hand, some writers argue that the practice of price discrimination comes down to profitability. A firm looking to maintain a particular profit margin might charge higher prices to certain groups or in certain areas if there are higher costs for providing products to these customers, such as those frequently found in inner cities: less demand from shoppers who have less money to spend, more crime and theft, and more expensive insurance rates (see Zhang and Ghosh, 2016). However, these estimates of higher costs are not always accurate, as shown by studies where stores in poorer neighborhoods were actually “much more profitable to operate than their middle-income neighborhood counterparts” (qtd. in D’Rozario and Williams, 2005, p. 176). Another claim based on profitability stems from the Prisoner’s Dilemma, here used to contend that, even though price discrimination reduces profits when practiced by multiple firms, it continues to occur because it would increase profits for individual firms (Corts, 1998).

Ayres (2007) critiques such understandings driven by profit when he explains third-degree price discrimination as motivated by market power. He argues that price discrimination and other business decisions should be treated as less acceptable if they produce profits which exploit market failure and rise above what normal competition would allow. In addition, he considers the practice problematic because it is less efficient than competitive or monopolistic pricing and because certain types of customers are either disproportionately excluded or have less choice about paying higher prices. Significantly for this research, Ayres notes that market power stems from factors such as limited alternatives and information and is linked to market failure, a situation in which resources are not allocated efficiently. Moreover, market power is the opposite of competition, which goes “hand in hand” with equality and encourages policies based on cost rather than those that price as high as “the market will allow” (Ayres, 2007, p. 674 and 690). This aligns with the claims of other scholars who have long emphasized that disparities such as race are more likely to continue without sufficient competition (see Ayres, 2007).

Problems with Accessibility

Accessibility is different from availability in that it encompasses more subtle patterns such as how often certain people are able to go to the grocery store, what groups of customers feel positively perceived or served by stores in their neighborhood, and what alternative sources can be utilized in different areas. Basically, looking at accessibility means looking at everything between the time a store makes decisions about location or price and the moment of successful or unsuccessful acquisition of products by customers. Even beyond number and location of stores and variety and price of products, many barriers exist that prevent all individuals from participating in the grocery industry in an equitable fashion.

One difficulty is that different households have different assets which they can utilize to meet their food and other needs. Families that live in areas with less healthy food may be able to mitigate the effects of this and the larger grocery gap on their lives, provided they have resources such as additional time to visit stores outside their area, enough money to freely choose quality foods, storage space at home to take advantage of bulk discounts, and even education on proper diet and the disadvantages of (usually less expensive but less healthy) processed foods. Moreover, transportation is crucial, and individuals with less mobility due to lack of private transport or other reasons have less power in choosing when and where to shop. Many studies about food security are focusing for this very reason on “travel burden” rather than just linear distance. Another problem is that not all neighborhoods have viable alternatives to grocery stores, such as farmers’ markets or other networks for distribution within communities. As discussed more in detail below, this study focuses on grocery stores for a number of reasons. Still, it is worth noting that the chance to mitigate the intense market power of certain grocery stores is less available to some segments of the population, in many cases making these groups more dependent on the stores in their neighborhood.

As the above review of literature demonstrates, the grocery gap is an important but complicated problem. It involves one of the most fundamental practices of daily life and the ways in which inequality pervades that practice. Moreover, the central themes of this study are intrinsically connected to other critical issues. Food is one measure of overall health and wellness and contributes to a “clear social gradient” in which neighborhoods that are disadvantaged in other ways tend to suffer more from diseases related to diet. Location matters a great deal in determining what and where we eat, including because of the “retail geography” of neighborhoods and other spatial factors such as residential segregation. Because grocery stores

are such a vital hub for social and commercial activity, their presence not only has a meaningful influence on the livability of a city but also facilitates employment, private investment in local economies, and community development. Finally, a wealth of other studies have explored the relationship between food retail and issues such as transportation, education, justice, welfare, politics, and many more.

All of these are part of ongoing research, not just into the grocery gap, but on the enduring questions it brings up: how we obtain and consume food in our culture, how markets produce and distribute finite resources, and how our individual positions and backgrounds shape our experiences with the same processes or systems. Some foundational knowledge about the industry and related phenomenon is necessary in order to recognize patterns from audits, place responses from interviews in context, and be aware of similarities when reading about differences. Again, the problem is complex, and this research aims to shed light on a single part of said grocery gap: its distinct presentation in Memphis. As such, next comes more specific background about the city and its food retail.

Study Area

Memphis is home to over 650,000 people and more than 180 neighborhoods. It is a city with intense commercial and cultural importance and a place largely oriented around cars and private transportation. A majority of residents are black, and there has been less than one percent change in total population in the last five years. Major industries include transportation, manufacturing, education, and retail, and the larger area, Shelby County, features well over 600 grocery stores and convenience stores, not to mention just as many restaurants.

Many sources agree that Memphis is currently experiencing high levels of activity in its grocery industry. On the other hand, the city is first in the country when it comes to hunger, and more than 20 percent of the population lives in areas officially considered food deserts (NewsOne.com, 2011). This means that one out of five individuals is from a census tract where the poverty rate is at least 20 percent and a third or more of residents are more than a mile away from a supermarket or grocery store (formal definition provided by the USDA). The actual number of people who experience food insecurity is likely even higher because simply not living within a food desert does not ensure access to quality, affordable food.

Memphis is a highly appropriate place to research the grocery gap for these and several other reasons. This project contributes to studies on specific aspects of the phenomenon in urban areas and provides a southern perspective. Memphis is located on the Mississippi Delta, a place rooted in rich agriculture, but only a small percentage of arable land is used to grow fruits and vegetables, and a significant number of residents do not have access to fresh, healthy produce and other groceries. The city is home to many “food-savvy” locals and displays a culture which is very much based on food, including the barbeque for which it is nationally famous, but not all Memphians are equally able to enjoy this culture. Ultimately, an increasing divide exists here between the experiences of more privileged and more disadvantaged individuals when it comes to groceries and food retail. Although Memphis is certainly taking several of the recommended steps to mediate this (cultivating other outlets like farmers’ markets, improving options at existing stores, and encouraging urban agriculture), many of the roots of the problem are more difficult to challenge.

This study thus focuses on supermarkets and larger grocery stores as the best source of quality food and other products as well as benefits to surrounding communities, such as jobs,

stability, investment, and improved property values. Such discussion is important to any city like Memphis which is necessarily concerned with investment and so must recognize the costs of chronic hunger and how the distribution of grocery stores affects decisions of families even about where to live. Of final note is the history of grocery stores in the city. The first self-service grocery store in the country, Piggly Wiggly, was actually opened in Memphis, with business practices that were unusual at the time but ultimately quite successful, such as checkout stands, prices on every item, and refrigerated cases for produce. Its founder, Clarence Saunders, later gave Memphis the first fully-automated grocery store in the entire world. Known as Keedoozle, this enterprise was extremely innovative but ultimately failed when circuits and other technology could not keep up with the high influxes of customers. Memphis can thus be considered absolutely central to the study of grocery stores, making the disparity in access to these businesses here worthy of close analysis.

An important point is that, although the grocery gap in Memphis affects many individuals, the issue encompasses overarching systems which go beyond the individual. Marlon Foster, who founded Knowledge Quest and works as the Executive Director of its Green Leaf Learning Farm, once pointed out how fresh food is influenced by local history and continuing racial tension. In a (July 2016) panel discussion at Rhodes College, he recalled conversations with black farmers who refused to sell their produce to farmers' markets, which wanted to then sell on their behalf, because it felt like another form of sharecropping. Mr. Foster also spoke about "underground" responses to increases in SNAP benefits (the current form of food stamps) at the same time as decreases in cash assistance, illustrating the realities of how local economies adapt to larger policy changes. Finally, although Memphis is often thought of as one of the "most

charitable” cities in the southern United States, food banks and other nonprofits are simply “not enough” compared to bigger solutions such as investment in communities (Capriel, 2015).

A huge number of organizations in Memphis are actively involved in working toward just that kind of solution. For example, the Green Machine is a produce market which has received international attention for its efforts to undermine the spatial aspect of food access. Using a refurbished city bus, it travels weekly to 20 areas, mainly in south and west Memphis, with less retailers of healthy food. Memphis Tilth is a collective which officially formed just this year to supervise the abundance in food programming in the city and continue the meaningful, innovative efforts of the past decade as effectively as possible (see memphistilth.org). In fact, Micah Trapp, a member of the Charter Board of Memphis Tilth, has conducted international research on food insecurity and thus is able to speak about the ways in which the grocery gap in Memphis is similar to or quite different from that in other places. In the same panel discussion mentioned above, she expressed that Memphis suffers some problems with leadership and is unlike cities such as Seattle and Philadelphia due to differences in perceptions and density. The latter is important when trying to execute projects on a larger scale or implement strategies here in Memphis that have been successful in other places.

Connie Binkowitz, the Health Innovations Program Director for the YMCA of Memphis and the Mid-South, added that other cities contending with the same issues as Memphis seem to display greater desire for equity and deeper recognition of the need to address fundamental problems with food and hunger. After working to improve the amount of healthy options in the many convenience stores in Memphis, Ms. Binkowitz is able to speak about the challenging aspects of working with local businesses and other partners, a sentiment echoed by several others, including Marlon Foster. He argues that the work of his organization is about extremes,

such as generating a high quality of food and other experiences from an area with fewer resources, and focuses on South Memphis, not as a place which needs things done to or for it, but rather as one which is beneficial to the surrounding city. Along these lines, this article reports on the bigger picture of the grocery gap in Memphis but certainly acknowledges the experience of community partners who are already involved around the issue and especially residents who are inherently aware of how it plays out in everyday life.



Maps of three neighborhood areas in Memphis: (from left to right) Berclair, Cooper Young and Castalia, and Whitehaven. Kroger stores are marked by diamonds, and value stores (Aldi in Berclair and Whitehaven, Save-A-Lot in Cooper Young and Castalia) are labeled with circles.

The research presented below focuses on three representative neighborhood areas: Whitehaven, Cooper Young and Castalia, and Berclair. Such an approach allowed for fieldwork in multiple, dispersed parts of the city and enough data collection for conclusions with a fair chance of statistical significance, since observations about both variety and price for 22 items at six stores gives a relatively high number of degrees of freedom. These particular neighborhoods

were studied because they all have at least one of each type of store (box, value, and local) and are different on some demographic dimensions. For example, Whitehaven is predominantly black, Cooper Young and Castalia has areas which are mainly black and mainly white, and Berclair is ethnically diverse, with Hispanic, white, black, and Asian individuals dispersed throughout the neighborhood (see Cable, 2013). However, it should be noted that, even though diverse areas were selected in hopes of a wide range of responses and some of that information about diversity is included here as relevant context, this study did not focus in further detail on racial and wealth disparities for several reasons. Some information about neighborhood populations was difficult to obtain because such areas do not line up with boundaries, such as census tracts or zip codes, more commonly used to report demographic data. In addition, an abundance of other literature already exists on the relationship between food inequality and factors like race. Some connections can be made for the data presented below between which neighborhoods are privileged in certain aspects of availability and accessibility and those areas which are wealthier or more predominantly white, but additional research, including more study areas, would be needed to authoritatively present such links.

The maps above illustrate the general boundaries of each neighborhood as well as the locations of the main stores studied in each area. Notice that Whitehaven is the only place in which these stores are both centrally located and somewhat spread out. In comparison, the only chain stores in Berclair are found on the southernmost street in the neighborhood. Even the several other convenience stores and ethnic markets, or at least those which can be found online, tend to be located on the edges of or just outside the Berclair neighborhood. This is noteworthy because, as discussed above, the presence of grocery stores all around but not within an area is one manifestation of spatial discrimination. The third area is a combination of the Cooper

Young, Castalia, and Castalia Heights neighborhoods and will be referred to in this paper as Cooper Young and Castalia or CYC. Notice that the primary stores are right next to each other, likely compounding the disparity in retail opportunities between those individuals living or working nearby and others in the neighborhood who have no store close to them or lack private transportation. One last point is that none of these neighborhood areas currently have the kinds of upscale grocery stores such as Whole Foods and Fresh Market which can be found in other, mainly eastern or southeastern, parts of Memphis. Cooper Young and Castalia, however, is substantially closer to one of these, Fresh Market, than the other two neighborhoods.

Methodology

Availability is essential to understanding the hard facts of the grocery gap, such as what varieties of products are available in what places and whether those products are affordable. To measure this in Memphis, store audits were conducted, which were modeled after but not completely based on other studies (see for example Ball, Timperio, & Crawford, 2008). In each of the three study areas, one box store (Kroger) and one value store (Aldi and Save-A-Lot) were identified, in most cases because they were the only such stores within map boundaries, although in some instances because they were the most centrally located. A smaller, independent grocery store was also chosen in each neighborhood, but these proved much more difficult to study because of the rapid rate at which these businesses shut down or change hands, a lack of information available online, and in certain circumstances outright opposition to any form of participation in the project. However, less attention to independent groceries or corner stores is appropriate because most residents later indicated they do not normally shop at these kinds of retailers or even have experience with the chosen stores.

The audits centered on a structured checklist which contained four categories of groceries (non-food, vegetables, dairy, and fresh meat) and three to five items in each category. For example, vegetables included were fresh and canned versions of salad greens, carrots, corn, tomatoes, and potatoes. A number of measures such as sales volumes, levels of consumption, and nutritional values factored into the choice of what products were most relevant, and meat in particular was added because of its centrality in Memphis. Lowest price was selected rather than median or mean price, and variety was recorded based on the number of different brands, so that the researcher could count efficiently and avoid distortions from versions of the same product which simply came in different sizes or were only slightly different, such as butter with versus without salt. Fresh vegetables were an exception, since these are typically not labeled with brands or packaged at all, and so number of different types was recorded for this subset.

Many decisions came up in the field about what data were appropriate to include. These choices were relatively insignificant for the first three categories, such as the exclusion of leave-in conditioner and feminine liners for non-food items, tomato sauce for vegetables, and margarine for dairy products. On the other hand, for the purposes of fresh meat, this project concentrated on items which were not obviously frozen or assumed to be frozen (behind doors or inside closed chests). Unusual cuts of meat such as pigs' feet were discounted. Certain types of areas were also excluded, such as delis, lunch counters, and in some stores more exceptional sections such as juice bars and coffee stores, mainly because these tended to be open different hours than the rest of the store. In a similar fashion, a substantial number of other observations were recorded while at the stores, but these were treated as separate data and mainly served to supplement general understandings of the researcher. For example, notes about being repeatedly mistaken for a store employee in some stores yet approached for money and inappropriate

questions while inside other stores later provided reminders about the importance of attention to positionality.

In addition to such data and more concrete measures of availability, this paper aims to explain the grocery gap in Memphis in terms of accessibility and the subtle ways that other social and economic conditions can cause different groups of people interacting with the same industry or system to experience very different results. As such, after conducting store audits, I utilized detailed interviews with the very individuals who daily influence or are influenced by the grocery gap. Data which resulted from this process are subjective, certainly less easily discoverable in books or online, and helpful for clarifying as well as complicating the bigger picture of inequality in food retail that lies at the heart of Memphis and this project.

A variety of techniques were used to identify residents who might participate, such as asking existing acquaintances to provide names and numbers of individuals they knew in the study areas, searching through local Facebook pages and groups, visiting a community lunch, and even sending emails to a few area churches and organizations. For managers, I repeatedly called, emailed, and showed up in person to stores and sometimes had to “walk and talk” with those who were not available for a more formal meeting. This resulted in five interviews with neighborhood residents, most of which lasted an hour, and five interviews with store managers, which usually took approximately thirty minutes. Although this number of participants is far from representative for each of the study areas, the project was somewhat constrained in terms of time frame and other concerns related to feasibility. More importantly, the fact that certain concepts or statements were repeatedly mentioned by many different residents or managers demonstrates that some level of saturation was achieved.

Residents were asked fifteen sets of questions, organized into topics such as grocery behavior (what stores and items are visited/purchased most often), shopping experience, budgeting, and relationship with stores. Managers were given ten sets of questions about products and pricing, target customers and customer loyalty, and finally strategies and success. I also asked each manager for their characterization of the grocery industry in Memphis. These questions and the overall format for interviews were first tested in a pilot study in Rockwood and Harriman, two adjacent cities in east Tennessee that each have small populations (less than 7000 people) and at least one of each type of store (box, value, and local) considered in the main study. Three individuals there were interviewed and then asked to provide feedback on what other topics they considered relevant to their experiences with grocery stores.

In both the pilot and main study, participants received a consent form, and the large majority of answers were recorded and later transcribed. In the main study, residents tended to be female, have at least 15 years of experience in Memphis, and consider themselves poor or lower middle class. Despite efforts to reach a more diverse sample, residents were also predominantly white. This influences but certainly does not negate subsequent analysis of their answers and underlying experiences. As far as managers, I primarily spoke with black males, who had anywhere from a few months to over a decade of experience in the Memphis grocery industry.

Findings

Grocery Variety

While availability, and specifically spatial discrimination, can be measured in terms of the density and proximity of grocery stores, it is also important to investigate the products within those stores in order to fully appreciate the grocery gap and identify places where relatively more

or less groceries are offered. Each neighborhood area in this study contains at least one box store (Kroger) and one value store (Aldi or Save-A-Lot), but audits uncovered differences among these neighborhoods with regard to the number of choices for certain products. For example, looking at the whole category of non-food items (paper products, laundry detergent, baby wipes and diapers, tampons and pads, and shampoo and conditioner), the stores in Whitehaven offered only 81 varieties, a total which was substantially less than the 113 varieties found at the stores in Cooper Young and Castalia. This difference parallels one of the main conclusions from audit data, that Cooper Young and Castalia experiences greater variety of the products studied at both box and value stores than either Whitehaven or Berclair. Moreover, the latter two areas offer almost equal variety at value stores, but at box stores Berclair has substantially more variety than Whitehaven. Such inequality in terms of availability aligns with expectations and the results of studies in several other locations, and it makes clear that how people in Memphis are differently able to feed and otherwise provide for themselves is based first on what stores and products are presented as options in their areas. These results are further meaningful thanks to connections to previous literature, such as the idea that greater availability of healthy, quality groceries naturally translates to greater consumption of these items, as well as later analysis of whether individuals are actually able to take advantage of available products and prices.

However, these results should not be interpreted to mean that Cooper Young and Castalia has the advantage for all types of stores and all categories of groceries. While this research supports the claim that some neighborhoods in Memphis are privileged, further analysis at the level of single products and types of products demonstrates that the whole picture is far from simple. Some areas that offered less total variety performed favorably by more detailed measures, as seen in the way that stores in Berclair together offered more brands and types of

tomatoes than stores in CYC, as well as more brands and types of potatoes than stores in CYC or Whitehaven. In the same vein, the Kroger in Whitehaven had more varieties of dairy products (milk, cheese, yogurt, and butter) than these stores in Berclair or Cooper Young and Castalia. These and other subsections of data do complicate my findings, but the important point here is still that availability varies by location and that different areas within the city of Memphis do not have the same options when it comes to food retail.

There were also differences in variety by type of store. For the products studied, all of the box stores (Kroger) had more than 200 choices, while all of the value stores (Aldi and Save-A-Lot) had fewer than 100 choices. Again, this means that areas which are fortunate along certain dimensions of availability such as number of grocery stores may ultimately be at a disadvantage once other measures such as variety and price are taken into consideration. Furthermore, because actual residents of neighborhoods are not all centrally located, differences in variety by type of store may create further disparity between individuals who live in close proximity to box stores and those who are only near value stores or independent grocery stores. Another interesting finding is that even calculations by neighborhood of square feet devoted to food retail may not provide a complete representation of the problem. One resident brought up variety in a comparison of Kroger and Schnucks, a chain which left Memphis in 2011, emphasizing the differences between their management of the same storefront on Union Avenue. That she found more varieties of brands, not to mention greater diversity of prices, in the exact same building several years ago indicates that type of store can be just as important as size in efforts to understand availability.

Some of these differences in variety were more pronounced than others. The value store in Whitehaven offered less than half (about 40 percent) of the number of fresh vegetables that

could be found at the Kroger store in the same area. Combined with comments from managers that they rarely stock any product without a strong record of past sales, this implies that, for produce, residents in Whitehaven generally rely more heavily on Kroger. In comparison, the value store in Cooper Young and Castalia had two-thirds as many fresh vegetables as the Kroger store across the street. This not only demonstrates that availability necessarily includes multiple stores rather than just those which are market leaders but also suggests that value stores in some areas do a relatively better job of supplementing the variety provided by box stores. Along these lines, it should not be assumed that the value stores are completely lacking in terms of variety, since all three had at least one choice for every product studied and were somewhat comparable to the box stores in certain categories. For example, the value store in CYC offered almost 30 choices for meats, a decent level of variety considering that most Kroger stores had 40 to 50 choices. Even though further exploration of accessibility, discussed in detail below, indicated that residents often do not see alternatives to Kroger as actually viable, the point here is that value stores in the study areas have the potential to compete with the offerings of box stores.

Also interesting is the distribution of organic options for the goods studied. The Kroger stores in Berclair and CYC offered between 10 and 15 organic varieties of vegetables and dairy products. The value stores generally had less than 10 such varieties. In comparison, the Kroger store in Whitehaven had over 20 organic versions of vegetables and dairy items. This could mean that Whitehaven generally exhibits higher demand for organic products than the other neighborhood areas, but more likely it suggests that Whitehaven directs less demand to sources other than Kroger, including value stores as well as independent grocery stores, convenience stores, and even farmers' markets. In fact, the availability of organic options parallels that of shampoos and hair conditioners. For these products, the Kroger stores in Berclair and CYC each

had more than 10 brands which are specifically marketed for natural hair, but none of the three value stores provided such options. The Kroger store in Whitehaven did not have many shampoos or conditioners intended for natural hair but did have a large part of one aisle devoted to relaxers, texturizers, and other similar products. Thus the grocery gap encompasses more indications of privilege than just higher numbers of similar options in some areas. It also concerns the availability of products which are often considered better quality (such as organic and natural produce) or are relevant to certain lifestyles and communities (such as hair and beauty products, ethnic foods, and so on).

Grocery Prices

The other main component of store audits was pricing. Contrary to expectations, the study discovered minimal third-degree price discrimination. Looking at just a few of the many examples of this, all stores regardless of type or location, with the one exception of the Kroger in CYC, priced their tomatoes within a tenth of a cent of each other (3.4 cents to 3.5 cents per ounce). Baby diapers and wipes cost exactly the same at all Kroger stores (2.02 cents each) and at the Aldi stores (1.6 cents), with the price at Save-A-Lot still less than a cent different. Milk and beef did exhibit some pricing differences, but this was relatively insignificant and only between different types of stores. For example, milk was a little over a dollar more expensive at the Kroger store than the value store in each neighborhood. Beef followed a similar pattern, with the exception of the Save-A-Lot. At Kroger stores it was priced within a tenth of a cent of \$2.20 per pound, and at both Aldi locations it was \$1.99 per pound. These findings support manager comments about meeting competitor prices and the difference being “just pennies” but somewhat contradict the behavior of residents who, as discussed below, heavily factor differences in pricing into their choices about where to shop. Perhaps promotions factor into final price paid by

customers in a way that cannot be captured with single instances of data collection. The discrepancy could also be explained if interviewees in the study tend to purchase the cheapest versions of items less frequently and so observe greater fluctuation with more expensive items.

Although it might seem anticlimactic to have conducted around forty hours of store audits, only to find such little variance in prices for the items and time period of this study, even a conclusion of no significant difference can be meaningful. It shows at least that poor and minority areas in Memphis experience a certain level of equality in terms of sticker price for groceries, even if subtle financial, social, opportunity, and other costs ultimately force them to pay more. On the one hand, we might hypothesize that the differential pricing by type of store in Memphis is similar to that in other areas and based on typical variations in store size, ability to qualify for bulk discounts and relationships with manufacturers, price sensitivity of target customers, and other inherent distinctions in operations between box stores and value stores.

However, the fact that differential pricing by neighborhood is so low means that certain circumstances in Memphis must be reducing the prevalence of this type of discrimination, despite it normally being a “dominant” business strategy, as discussed in other literature. In this way, the results of the audits force a return to the main explanations for group price discrimination: prejudiced sellers, motivation for profit, and market power. A whole other study would be required to definitively state which argument is most applicable to this observed lack of differential pricing for food retail, but this study makes the meaningful point that less third-degree price discrimination in Memphis coincides with numerous responses, during both resident and manager interviews, about market power in the grocery industry. More specifically, even though residents are correct in pointing out the dominance of Kroger, many managers characterized the grocery industry in Memphis as competitive or very competitive and some said

that Kroger locations engage in significant competition with each other. Perhaps this is why, at least by neighborhood and connected differences such as race and class, this study did not find price discrimination to be a noteworthy pattern in Memphis grocery stores. Instead, who is most affected by the grocery gap and how exactly that plays out seems to occur in more subtle ways in this city, as discussed further in the section below, which is based on interviews and delves into accessibility rather than simply availability.

Price Sensitivity

Pricing is an important part of availability, but it can also influence accessibility when concerns about price extend to decisions beyond what items to purchase. To elaborate, residents repeatedly brought up price when asked about stores and products, explaining that choices such as whether to buy organic products or eat relatively more chicken than beef that week and vice versa came down to pricing and promotions. Noteworthy exceptions when price was less important to selection of products include fresh produce and diet restrictions, the latter coming into play for individuals who were vegetarian or had medical conditions. Interviewees also acknowledged on multiple instances that price was a deciding factor in where to shop. For example, one individual admitted that Fresh Market is closer to them than other stores but does not carry a single item they can afford.

More importantly for the question of access, though, is the way that price is an overarching constraint for these individuals which shapes the entire process of participation in the grocery industry. One woman revealed that when she goes to the grocery store exactly matches when she gets paid, and another said that spending less money is one of her motivations for shopping behavior such as planning a list ahead of time and moving quickly while in the store. Store perception was also deeply rooted in price sensitivity. One resident was glad that an

Aldi store had come to their neighborhood specifically because they could then get the same products for cheaper prices, and another volunteered that a positive aspect of Kroger is its attempt to price according to the fact that people in the surrounding neighborhood are on tight budgets.

One resident emphasized that every dollar counts when living on a fixed income and having to stretch a small amount of food stamps and other funds. As part of this, they are always sure to check every part of the store for deals and even directly ask management about special sales, a strategy which helped on their last trip when a manager was able to reduce the price of kitty litter by almost half because of a defect with the container. In this way, price consciousness directly influences interactions between individuals and stores in their neighborhood. It reduces accessibility to the extent that it makes a difference in when and how long residents shop, what stores they desire in their neighborhoods, and how they relate to representatives of the grocery industry. An important addition here is that availability maps onto accessibility and that some individuals who are already limited in the former are more affected by the latter. To return to the examples introduced above, individuals in neighborhoods with fewer stores may be at an additional disadvantage if some of those stores are outside their budget, and some individuals may be less able to take advantage of promotional pricing if they cannot afford to shop that week.

Another interesting point is that, although residents from all neighborhoods seemed to consider price a priority in various aspects of shopping for groceries, those from different neighborhoods used different mental frameworks to quantify such costs in their lives. When asked about what portion of their total income or monthly expenses could be attributed to grocery purchases, individuals from Whitehaven or Cooper Young and Castalia were all

eventually able to at least estimate one of these. In comparison, participants from Berclair could not answer this question off the top of their heads, but they (as well as one resident from CYC who reported himself as poor) emphasized dollar amounts when talking about grocery stores, whether in terms of special deals, general budgeting, or in some cases, the prices at multiple stores of several products. It should be noted that not all interviewees are heads of their households, but they are all primary shoppers for their households. Even though financial concerns dramatically shape experiences with the grocery industry long before and long after actual visits to the store, these responses demonstrate that individuals tend to conceptualize those concerns in different ways.

As one would expect, store managers seemed quite cognizant of all this attention to price. Several of these interviewees said that the target customers of their stores are sensitive to price or that they receive less income or more governmental assistance. Other responses from managers explained that the desire to offer low prices motivates decisions such as carrying a significant amount of their own brand of products or working through a warehouse rather than directly with local vendors. In the same fashion, managers hoped that money-back guarantees allow customers to eat international products they might otherwise be hesitant to try, or that in the future their store would have greater flexibility in pricing in order to be more competitive among said price-sensitive customers.

More specifically in terms of accessibility, responses from managers showed recognition that price sensitivity goes past individual decisions about products in several ways. It connects to store choice because customers may come to a particular business for one necessary item at a lower price and then end up doing the rest of their shopping there. It relates closely to timing, as seen in the way that shopping patterns and store sales fluctuate throughout each month in close

correlation to when governmental assistance is distributed. In addition, multiple managers emphasized their weekly advertisements, but one such interviewee made it clear that his store understands the scheduling constraints created by price concerns, since it now runs said advertisements for two weeks rather than one in order to help individuals who might be struggling to save money in time. Another manager actually hit on how price consciousness influences the relationship between stores and neighborhood residents when he expressed that part of the importance of promotions is trying to give back to the community and “showing a good price” on products all the time. In total, these comments, including those by residents mentioned above, demonstrate that even beyond availability, pricing has an important impact on the acquisition of quality groceries. Moreover, many individuals are at least implicitly aware of this aspect of accessibility that constrains when, where, and how groceries are purchased.

The Built Environment

Numerous responses from interviews also touched on the significance of location and mobility, leading to three distinct but closely connected points. The first is that some individuals are well aware of factors like spatial discrimination. This goes back to availability, and is seen for example in comments from the manager at one of the value stores, who disclosed that decisions about new locations come down to distance from competition and characteristics of the surrounding population such as income. Another manager from Whitehaven mentioned that their store carries more products for home improvement and gardening specifically because customers would otherwise have to travel to stores outside the area. One resident of Cooper Young and Castalia made interesting comments in the same vein. She remarked, after having lived in several other neighborhoods in Memphis, including Evergreen and Central Gardens, that the grocery stores in her current neighborhood seem farther away and are maybe “closer to the money”

instead. Her thought was that stores look primarily at zip codes and so group Cooper Young with areas such as the Evergreen district that have higher incomes, even though Cooper Young is “just a hop and a skip” away from 38114 (which includes Castalia and Castalia Heights). She considers the neighborhood a line between wealthy and less wealthy areas and doubts that there would be a Kroger store in the neighborhood if it was seen more as part of those less wealthy areas.

In addition, accessibility depends on transportation. All individuals interviewed frequent stores which are relatively close to their work or home, and most have cars and/or close friends or family who could provide private transport. This allows them to go to the store as many as three times a week and engage in more spontaneous trips whenever they run out of certain products. Although both Berclair residents made clear the influence of traffic, all individuals with private transport can travel to one of their chosen stores in five to ten minutes. One woman even explained her established “round trip” of multiple stores in a particular order. In complete contrast, the one resident interviewed who relies instead on public transportation was at a disadvantage when it came to many of the above practices. They “can’t just call somebody” to take them to the store and so must do without if they run out of necessary items between trips. Even when they spend just 30 minutes actually shopping, their route can take as long as three hours, and they often worry about getting their groceries home without any spoilage. The resident in question does have an upright grocery cart to help with the quite physical task, but they are unlike the other individuals in the study, who can easily transport groceries via car, and even leave groceries in the car for hours at a time during certain parts of the year.

These disparities in difficulty for each trip to the grocery store have significant implications. Certain resources are vital to full participation in the grocery industry in Memphis,

and location matters not just within the city but also within the study areas. In fact, an employee at one of the Berclair stores talked about the way that his neighborhood has changed in the past three decades, such that it is no longer safe enough to walk from store to store, which highlights the influence of a number of additional aspects of the built environment, such as street lighting and commercial zoning. Ultimately, differences in accessibility daily affect real people in powerful ways, such as with diet constraints or lost time or scheduling inflexibility, including because they can compound other disadvantages or differences in availability. To provide just a few of the many examples of this, think about how having to walk and wait as part of taking the bus to a grocery store makes not being able to sit down while at the store even less pleasant for someone with a physical condition such as arthritis. One manager mentioned that the produce at their store is especially affordable and that some customers make trips just for these products, but it logically follows that only individuals who are in a position to make multiple trips are able to engage in this practice.

Such differences in accessibility also connect to one other interesting pattern from meetings with managers. In response to a set of questions about loyalty, most of these interviewees identified customers who visit the store at least two or three times each week. This suggests that residents who experience limited accessibility due to transportation or other mobility issues may experience further inequality in their interactions with store managers, for example if the former are less targeted and feel less comfortable asking about deals or desired products. Independent of the sound business logic behind such answers about loyalty, they approach a matter at the heart of the grocery gap: what groups of customers are considered most valuable.

Last but not least, mobility can entail issues with access for some individuals even after they arrive at grocery stores. The father of one interviewee participates in decisions about what to purchase, but because he has trouble walking, waits in the car while the mother purchases those items. Another interviewee said that their disability prohibited standing for too long at one time, making it a meaningful problem for them that the only place to sit in most stores is one bench at the front. Taken together with the above patterns about proximity and transportation, these situations suggest that, even in a place like Memphis with public transportation and relatively high rates of vehicle ownership, the built environment of the city powerfully shapes how individuals get around and obtain necessary items. Whether individuals are actually in a position to access the choices made available to them in terms of groceries is influenced by locations of stores and people as well as weather, bus routes and traffic, and different neighborhood atmospheres.

Perceived Lack of Alternatives to Kroger

In addition to mobility and price concerns, this research found that accessibility is shaped by a number of perceptions that encourage or dissuade individuals from purchasing groceries at different types of stores. To elaborate, Kroger is an especially important firm in the grocery industry in Memphis. Every single resident interviewed buys most of their food at Kroger alone or at Kroger and another store, and all but one person buys other groceries there at least some of the time. Multiple individuals echoed the idea that the store “seems to have the whole city” of Memphis. One representative of the store explained that, because Kroger is the largest grocery retailer, other firms are not really threats and have to fall in line or “catch up” with the standards set by Kroger. At another business, a manager with over a decade of experience highlighted the

reduction in major players when recalling how the industry has changed in Memphis during the past few years. This is not to say that the market is not still competitive, as repeatedly contained in answers to my request to briefly describe the local industry. Managers at Kroger stores communicated that they compete with each other as well as nearby value stores, especially on key items like milk and bread.

Individuals had very different responses to such dominance by Kroger. Divergences in opinions according to where residents call home align with other studies, which have shown that advantaged households may be less likely to see big box retailers as “amenities” (see Schuetz, Kolko, & Meltzer, 2012). Basically, different Memphis neighborhoods have different views of essentially the same stores. Individuals living in Berclair or Whitehaven generally had more favorable assessments of Kroger, more often than not identifying it as one of the grocery stores with a positive effect on their neighborhoods. One interviewee did express interest in being able to compare prices at other big stores, but many comments from these areas focused on valuable aspects of Kroger such as variety, pricing, and gas points.

In comparison, both interviewees from Cooper Young and Castalia were critical of Kroger and its role in the neighborhood. One did not see any stores discussed, including Kroger, as having a positive impact on the area. This person argued that, even though Kroger gives to food banks and employs people, it needs to reduce the loopholes and red tape in their policies in order to “do better” by giving more and giving more directly to a local community where people are starving. The other individual from CYC actively wished for other places to shop and really dislikes the Kroger Shopper’s Card, which supposedly benefits the customer but actually seems to track a large amount of information which can then be passed on to other parties and used to justify “homogenizing” or reducing brand selection. This person looked forward to the reopening

of the Kroger on Union Avenue and described how it will benefit the neighborhood, but in general sees Kroger as a big corporation which is not based in nor particularly attracted to Memphis, carries too much of its own brand, and attempts to “run out” other grocery stores.

However, research for this project uncovered countless other players such as value and independent stores as well as alternative sources for groceries like farmers’ markets and convenience stores. To provide just a few examples, CYC boasts a weekly farmers’ market, Berclair has a significant number of small grocery stores targeted to Hispanic customers, and a simple search on Google Maps for convenience stores in Whitehaven yields well over ten results. Managers of value stores who were interviewed made multiple comments about the general importance of alternatives, arguing that their stores occupy a positive position in the neighborhood, for example because they nurture a sense of community with customers and because they would not have been able to stay in business for so many years if the surrounding population did not love and support them. More specifically, these stores expressed that they are seen as a “valuable” substitute to Kroger, that residents appreciate the option to shop at a smaller location with more interaction than what Kroger or similar firms can offer, and that part of their overarching strategy is to remain competitive so that “people will have a choice” between them and other businesses.

One might guess that many neighborhood residents, especially those with less favorable opinions of Kroger, would take advantage of these other stores and sources, but responses from interviews indicated that this may not actually be the case. None of these participants regularly acquire groceries through Community Supported Agriculture subscriptions, and a majority do not use convenience stores or gas stations for food other than snacks. A few residents do visit farmers’ markets, but never more than once a month. Most importantly, further questions

revealed that residents hold certain beliefs about why these sources are less viable when it comes to groceries. Such perceptions limit accessibility because they prevent individuals from taking advantage of all the stores which are available to them. For example, one interviewee explained that they do not use farmers' markets in part because they simply do not think about them when nearby, and another expressed that they are not in the habit of using convenience stores because they did not growing up doing so. Multiple participants seemed to believe that these stores are practical mainly when traveling and otherwise "just don't seem like a place you should buy edible stuff" on a regular basis.

Stores other than Kroger are also less likely to be considered viable in relation to several social aspects of grocery shopping. When asked what parts of their shopping experiences are the most negative, several residents mentioned overcrowding during certain times of day, and one responded that they have to deal with other shoppers getting in the way, cutting line at the checkout counter, and even cussing since it is "not a nice" neighborhood. Aldi was mentioned by name and contrasted with Kroger in this regard, with comments that the former does a worse job of making sure there are enough cashiers to handle more shoppers during peak hours.

Interactions with store employees were also featured in remarks about which stores are seen less positively. One individual does not always feel that she is taken seriously at a particular value store (one not examined for this project), another resident criticized the way some employees were rude at the register and unhelpful throughout the store, and one manager remembered times that customers have stopped using his value store because of a single negative experience. All this shows that, although measures of availability are valuable in determining what sources of groceries can be found in what locations, accessibility comes into play when evaluating the circumstances which encourage or prevent individuals from using those sources.

Along the same lines, the appearance and layout of stores significantly influence residents and their understandings about which sources are usable. Some individuals, who recalled visits to the independent grocery stores initially selected for this study in their respective neighborhoods, disliked how these stores looked, including because too much “junk” was crowded inside and there was a lack of fixtures like seating outside. Other responses compared Kroger to certain value stores, saying the former was cleaner, or directly criticized convenience stores for being “grungy” or “uncared for” in terms of appearance. Overall, every single resident mentioned appearance, including cleanliness and layout, in some capacity, indicating that this is a major part of customers’ decisions about what stores they should visit. This illustrates how factors beyond availability of stores and products, such as the tendency among participants to view certain types of stores negatively based on appearance, can change accessibility and contribute to the grocery gap.

One individual further stated that stores which look clean or neat attract “a totally different type” of customer. This connects to a final category of perceptions that limit accessibility, those about “rough” people and places. It should be noted, here and above, that referring to these ideas as perceptions does not mean they are not rational or based in reality, but distinguishes such constraints from the physical or economic concerns described in previous sections. Especially vocal in this regard were one resident from Berclair and one from Cooper Young and Castalia. Their responses made clear that stores located in unsafe or “rough” areas are really only accessible during the day and that residents may feel uncomfortable visiting alternatives to Kroger such as independent grocery stores because these seem to “invite trouble” for a number of reasons, including “characters” who loiter or ask for money. A related point here is that Kroger seems somewhat aware that such impressions limit full access and has taken steps

to avoid people and places that might deter customers. Discussion with one employee of over 30 years revealed that a previous decision to change location was driven partly by the opening of a strip club right across the street and that more recent decisions to reduce operating hours were motivated by fights in the parking lot. This employee said that the change in hours has also curtailed the significant numbers of customers who would visit the store right after other businesses like bars and strip clubs closed.

In these ways, perceptions lessen accessibility when existing stores and sources are not considered usable for a variety of reasons such as their format or customer base. This means that many residents are more dependent on Kroger than an initial look at stores in the area might suggest and that future efforts to improve access to quality groceries would benefit from attention to rethinking what sources and routes are acceptable for obtaining such necessary products. It again illustrates how individuals who are already disadvantaged in terms of availability may further struggle with accessibility, a pattern which unfortunately results in significant inequality in food retail and widens the grocery gap in Memphis.

Conclusion

A distinct grocery gap exists in Memphis. The above study, based on data from three neighborhood areas, resulted in a number of key findings about this. Audits of stores revealed inequalities in availability, such as differences in variety by neighborhood, yet minimal geographic price discrimination. Interviews with residents and store managers explored discrepancies in accessibility, including those from price sensitivity, mobility and location, and certain perceptions of Kroger and other stores. Individuals from different neighborhoods and in different socioeconomic circumstances do not experience equal availability or accessibility when it comes to the grocery industry in Memphis. Moreover, the two components of the problem

work together to shape what groceries individuals can obtain, and connections between themes compound the challenges that some of these individuals face. For example, certain participants in this project are privileged in terms of mobility but ultimately limited by price concerns, or are already disadvantaged in terms of mobility and then further constrained by perceptions of “rough” areas around stores which might otherwise be of use.

The research outlined in this article thus holds significance for the city of Memphis, but my findings also contribute to an existing body of literature. Only a small number of these articles actually define the grocery gap, most focusing instead on one aspect of the problem such as food insecurity or retail deserts. Accordingly, this text adds to the conversation by looking at a bigger portion of the picture than most, by working with a clear definition of the grocery gap, and especially by putting forth (and then demonstrating the application of) a new mental framework, one that organizes a wide range of factors into the distinct but connected categories of availability and accessibility. Such an approach changes not only how future research may conceptualize the grocery gap, but also how individuals and organizations working towards equality in food retail may contend with the phenomenon, since individuals can be restricted by availability, accessibility, or both.

Future studies with additional time, resources, and people could look more comprehensively at availability by auditing a majority of stores in each neighborhood or collecting data on more items within those stores, such as fresh fruit or frozen versions of vegetables and meat. Along the same lines, a larger and more diverse sample of interviewees would help to more fully understand how different groups of people are disproportionately affected by certain barriers to access. Meetings with individuals who have greater influence, such as Kroger employees who hand down corporate decisions on products and pricing, could delve

more deeply into not just how but why the grocery gap plays out in particular ways in Memphis. Finally, looking at more neighborhoods, especially if these were placed into groups by deprivation indexes or other measures, would yield a bigger glimpse of the systematic phenomenon that is inequality in food retail in modern cities.

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