Food Oases: A Case Study of East Liberty, Pittsburgh
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Access to quality, affordable food is a key component of good health. While many urban communities have suffered from disinvestment by the grocery retail industry, poor ones in particular often do not have a supermarket nearby. The presence of "food deserts" and their negative consequences for residents has animated much of the literature about food and equity. However, the East Liberty neighborhood of Pittsburgh, Pennsylvania, supports a dense cluster of seven grocery stores that serve a regional population. Interviews with key stakeholders, on-site observations, and a GIS-based framework were used to evaluate the development of this remarkable instance of a food oasis. The advocacy and subsidies of local government catalyzed a series of investments by large corporate grocers, while a dense, mixed-income regional population, accessible regional transportation, and cheap, available land supported the development of the cluster. However, although the addition of several new grocery stores spurred more economic activity in the neighborhood, it did not improve access to food. Further, while the new stores have attracted a regional population, including many shoppers from surrounding wealthy, white neighborhoods, into the neighborhood of East Liberty, the consequences for the community itself have not been entirely positive; increasing economic activity and speculative developments appear to be catalyzing gentrification and displacement rather than community growth.

Literature Review

Organizing Economic Development

Competition for capital investment and economic activity among regions, cities, and neighborhoods drives the development and construction of space. In 1976, Harvey Molotch theorized that local economic and political elites were akin to a dynamic organism committed to achieving economic growth—"The Growth Machine." Landowners, who otherwise compete locally, cooperate at broader scales to extract community improvements from all levels of government but particularly the local one. For instance, two coffee shops on the same block compete for customers but would collectively lobby the city for a new transit stop that would bring more business to the area. In effect, land use maps are “a mosaic of competing land interests capable of strategic coalition and action” (Molotch, 1976: 311). Molotch characterizes local government as an object of the market; thus, city government’s basic function, because of the organization of economic elites, is to advocate and support economic growth – i.e. to the benefit of the landowning elite. Local governments facilitate economic development because local wealth is understood to benefit the local area, some portion of the growth is understood to be recycled into the community because the economic elites are themselves local.

However, the political economy of competition and cooperation among economic elites is being undermined by the increasing concentration of capital in fewer and fewer globalized corporations. Molotch and Logan (1984) describe the changing investment landscape in their article, “Tensions in the Growth Machine.” Corporate branches, managed locally but owned from afar, provide fewer benefits to the local community. Wealth that is generated by the local branch is then exported to a national or international level and is recycled within the community. Further, as landowners are further removed from their land and less dependent on its future value, they become more indifferent to negative, localized externalities which may be suffered by their business ventures. The new political economy of delocalization shifts from wealth development to wealth extraction and from economic growth to economic activity.

Investment is also driven by the relative capitalization of rents. As an area becomes saturated with investment – and the potential profit return diminishes – developers redirect their capital toward other, relatively undercapitalized spaces where the return is greater. As Neil Smith (1979) argues, gentrification is driven by the return of capital investment to a depreciated and undercapitalized community; once the money is invested, the people follow. Gentrification, argues Smith, is a "structural product of the land and housing markets" and, although it can be initiated and supported by various public or private actors, the process itself is an inevitable function of a capitalist economy (Smith, 1979: 546).

At the intersection of these two explanations for investment – Molotch's 'Growth Machine' and Smith's capitalization of land rents – is a coherent explanation of urban redevelopment, particularly in a neoliberal political moment. Developers, who are not necessarily local, leverage connections with local governments to further depress land rents by reducing taxes, demolishing structures, or adjusting local regulations – effectively subsidizing investment to catalyze economic activity. This framework provides both a motivation (capitalizing undercapitalized ground rents) and a mechanism (a leveraged political state) for neighborhood redevelopment.

Disinvestment and Food Access

The uneven economic development and allocation of resources across neighborhoods that characterizes American cities supports inequity in other aspects of life, such as nutrition. Researchers have documented significant disparities in nutrition, 'lifestyle' diseases, and overall measures of health, with negative outcomes being especially concentrated among the poor and people of color (Lopez, 2007). Health disparities are, at least partially, driven by residential segregation and associated inequalities in community structure (Gee and Payne-Sturges, 2004). Among the causes of such disparities, access to healthy and affordable foods is believed to be skewed by structural forces and uneven development. Thus, "food deserts" – urban and rural areas devoid grocery stores and supermarkets – have been identified across the United States, particularly in poor, Black neighborhoods (Walker et al, 2010). Lack of access to traditional facilities forces residents to shop at convenience-style stores with less healthy, and more expensive, food options (Chung and Myers, 1999). Some researchers have blamed the dearth of grocery stores and healthy food in poor communities on their diminished collective economic power and irregular, paycheck-to-paycheck spending patterns (Bell and Burlin, 1993). Other researchers have pointed to prohibitive zoning and land acquisition complications that prevent corporations from building supermarkets in urban areas (Alwitt and Donley, 1997). Negative perceptions of inner city crime have also been cited as cause of the disparity (Eisenhauer, 2001). Overall, researchers have identified multiple barriers in poor, urban communities to access of quality, affordable food (Schaft elt al, 2009).

The current uneven distribution of supermarkets is driven by the historical transformation of the grocery industry, characterized by increasing suburbanization and centralization. An article in *Progressive Grocer* from 1987 chronicles the change in grocery retailing during the 20th Century, an evolution that parallels changes in American urban spaces more generally. Early in the century, the market was composed of a large number of smaller, independent, urban retailers with enough political clout to protect themselves from larger chains. However, the Great Depression and rationing during World War II forced many retailers out of business. Then, in the 1950's and 60's, grocery retailers, mindful of increasing suburbanization and dependence on automobiles, bought large tracts of land and constructed stores that were roughly twice the size of their urban counterparts: "by the end of the 1960's, supermarkets owned and operated by a single family were headed for extinction; (and many) family businesses were snapped up by large corporations" (Progressive Grocer, 1987: 83). Between the 1960's and 1980's, the industry became computerized, more vertically integrated, and increasingly concentrated among a handful of corporations. Suburbanization of the industry continued, and while there was a net growth in supermarkets nationally, "in the 1980's cities experienced a net loss of supermarkets"

(Eisenhauer, 2001, 128). During much of the 20th century, the grocery industry emulated the broader exodus of investment and population away from urban centers. Grocery retailers followed wealthier, white families into the suburbs, leaving many poor, Black, and urban neighborhoods without access to a supermarket.

In the past couple decades, there has been a storied back-to-the-city movement where capital investment and people have been returning to and reinvigorating – and sometimes gentrifying – previously neglected urban spaces. As more affluent urban communities form, corporate grocery retailers will likely see new value in urban locations. However, while urban retail openings are often celebrated, they reflect local changes, rather than genuine, industry-wide trends (Eisenhauer, 2001). As the historic transformation of the grocery industry has shown, changing residential patterns spur – and are, in turn, spurred by – industry changes. But, while the literature has repeatedly documented food deserts, little attention has been paid to the opposite pattern, a *food oasis* – that is, a dense cluster of grocery stores in an urban area. The return of supermarkets to urban communities will likely be supported by local governments. Supermarkets have become massive buildings (50,000 sq. ft.) that are not easily placed in urban environments (Eisenhauer 2001) and their propensity to anchor other retail developments, while providing access to food, makes them a lucrative target for the "growth machine." Molotch and Logan's (1984) update of the "growth machine" is particularly relevant for analyzing modern urban grocery stores, given the intense centralization in the industry. Further, as a reading of Smith's (1979) gentrification article shows, governments that want to spur the construction of a grocery store would perhaps need to intentionally depress land rents – by, for example, providing developers with perks such as acquiring and clearing already cheap land and reselling it at a low price; giving planning relief by re-zoning and relaxing codes; and providing subsidies, likely in the form of Tax Increment Financing (TIF).

Study Area

East Liberty is a community in Pittsburgh's East end that has experienced a historic decline but is now experiencing a renaissance and gentrification. As the community developer describes East Liberty's history, in the 1940's and 50's the community was a thriving business district that rivaled Downtown Pittsburgh. But, by the end of the 1950's, suburban growth was pulling residents and shoppers out of the community. In response, neighborhood economic elites and the City of Pittsburgh developed a new vision of East Liberty, intending for neighborhood businesses to compete with the suburban strip malls. Between 1960 and 1970, the city's urban renewal plan to create a pedestrian shopping mall surrounded by a sea of parking lots destroyed more housing and retail space then it created, "a net loss of one million square feet" (ELDi, 2010, 6). Dominant features of the new landscape were several high-rise public housing developments at either end of the business district – one literally spanning the main road – and a large highway-style ring road encircling the parking lots and retail spaces. The community had historically been affluent and white. However, in the 1950's, an urban renewal project in an adjacent heavily Black neighborhood displaced roughly eight thousand people. This displacement spurred an eastward migration by many of the displaced residents who had few options in the city other than public housing (Trotter and Day, 2010). The three new subsidized high-rises in East Liberty partially catalyzed the community's transformation towards a poorer, majority Black community. The period of urban renewal in the 1960's precipitated significant economic and demographic change in the community. According to the community developer, urban renewal spelled the neighborhood's demise.

Figure 1 Grocery Stores in the East Liberty area

In the last several decades, the neighborhood has experienced accelerating private investment and development because of the local community development corporation (CDC) and city government advocacy, financing, and development projects. In 1979, the East Liberty Chamber of Commerce organized East Liberty Development Inc. (a non-profit CDC) to advocate for public and private development in the community. Towards the end of the 1990's, ELDi became increasingly critical of high-rise public housing, which it considered to be "distressed" and a deterrent to outsiders entering the community (ELDi, 1999). Accordingly, the last towers were demolished in 2005. Meanwhile, in 1999, East Liberty was able to lure Home Depot to relocate in a building previously abandoned by Sears because of advocacy from Mayor Tom Murphy and financing from local government. The Home Depot's success set the stage for other national retailers to come to the community and, within a decade, there were eight grocers in the area, including three high end stores; this dense cluster is depicted in Figure 1.

Methodology

A variety of qualitative and quantitative methods were employed to assess the development of the food oasis, including interviewing, observation, and GIS-mapping. I interviewed Morton Coleman, a former city planner, and the former mayor of Pittsburgh, Tom Murray. From the CDC, I interviewed Reverend Patrice Fowler-Searcy, a board member, and Eric Jester, a project manager. Each of these interviews were done in person and transcribed. I supplemented these interviews by visiting each of the seven grocery stores in the food oasis, observing how the stores presented and marketed themselves, what sort of products were offered, and who seemed to patronize the store.

A Geographic-Information-System (GIS)-based framework was developed to assess the distribution of grocery stores and the demographic characteristics of surrounding neighborhoods. Supermarket locations were identified throughout Allegheny County and were geocoded using Google Maps. This dataset included the name of the store, its latitude and longitude, and a code indicating the type of store: discount grocers, high-end grocers, middle-range grocers, and wholesalers. The type of store was determined by how the stores marketed themselves, rather than by measured prices of its products. Discount stores, such as ALDI or Shop 'N Save, clearly distinguish themselves from both standard grocers, such as Giant Eagle or Kuhn's Market, and more high-end retailers, such as Whole Foods or the Market District brand. As a rough estimate of access to grocery stores, buffers were calculated around each store within half-mile and one-mile radii, which are the USDAs criteria for assessing urban food access.

Data from the 2000-2015 American Community survey were used to evaluate the density of wealth surrounding the food oasis. Three demographic variables were developed for the analysis including population density, median income, and the density of households earning $75,000 or more at the block group level, the most fine-grained data unit available.. Cluster and outlier analyses were performed using the Anselin Local Moran I statistic which identifies statistically significant spatial relationships. This statistic, unlike a hot spot analysis, also identifies deviations from the clusters, providing for a more nuanced assessment of the demographic landscape (Anselin, 1995). The results of the cluster and outlier analysis are presented with the locations of grocery stores – categorized by the type of store – in the Pittsburgh region. The demographic data was used to evaluate the assumptions and assertions of the stakeholders who were interviewed – that is, to compare their accounts of neighborhood change with an external measure of how this process unfolded.

Findings

A Timeline of Development

The food oasis in East Liberty was catalyzed by the City of Pittsburgh's advocacy and subsidies. According to the stakeholders that were interviewed, the development of Home Depot catalyzed the growth of the food oasis. In the mid-1990s, a large building that had been abandoned by Sears sat vacant in East Liberty. Mayor Tom Murphy believed the property would be the ideal location for a Home Depot which would serve both rich and poor constituencies. Mayor Murphy became a strong advocate for the site. As Mayor Murphy tells the story, he asked the CEO of Giant Eagle to host a banquet for the CEO of Home Depot, Bernie Markus, to bring him to Pittsburgh. During the dinner, Mayor Murphy and his bodyguard approached Markus. They told him that they were going to "kidnap" him for thirty minutes, then brought him to the site and pitched the idea to him. After a series of negotiations, a Tax Increment Financing (TIF) package, and a Community Benefits Agreement (CBA), Home Depot opened its first urban location in 1999. According to all of the stakeholders, the East Liberty store was a tremendous success and among the biggest earners out of all of its locations nationwide. The success of a national chain in a regional location like East Liberty was a critical precedent for the growth of the Food Oasis.

In 2000, East Liberty had a lot of vacant property because of Urban Renewal. Early in his term, Mayor Murphy fired 150 city employees to create a land acquisition fund of $60 million. Some of this fund was used to clear and package a large amount of vacant land so that Mosites, a private developer, could redevelop the area as a commercial development anchored by a Whole Foods. Representatives from ELDi traveled to meet Whole Foods to recruit them for the development. Whole Foods, after receiving a TIF package from the City, opened in 2002. This was the first Whole Foods in Allegheny County and, anecdotally, according to stakeholders, customers were traveling from across the metro area to go to it. Again, a national chain in East Liberty was a regional success.

Giant Eagle, the owner of two grocery stores that already existed in the area, was upset with the city for subsidizing their competitor and felt threatened by the higher end retailer. In 2006, Giant Eagle upgraded their Shadyside store from a standard supermarket to their own higher end brand, Market District. To assuage Giant Eagle's concerns about supporting a competitor, the city gave Giant Eagle zoning permission to build housing on the property. Now, the area had four grocery stores including the first two higher-end brands in the entire county.

When ELDi had been originally advocating and promoting commercial development, they decided to target the higher end grocers, and were particularly interested in bringing a Trader Joe's to the community. In 2002, right after Whole Foods had entered the Market, Patricia Fowler-Searcy traveled on behalf of ELDi with a local developer to a grocery retail convention hoping to entice a new retailer to the community, particularly a Trader Joe's. Fowler-Searcy recounted that at that time, no one was interested in coming to East Liberty. However, after several years of the national chains doing well in East Liberty, it was clear that the neighborhood was a good center for a regional store. Thus, five years after Fowler-Searcy went to the convention, without any additional advocacy by ELDi, Trader Joe's opened its first store in Allegheny County in East Liberty.

When East Liberty was undergoing urban renewal during the 1960s, planners built three high-rise apartment buildings at either end of the business district to anchor the commercial core. The three buildings were privately-owned but publicly financed low income housing. However, in 2005, as more intensive development was taking hold in East Liberty, the City of Pittsburgh moved to demolish the three towers. In order to develop the land that had formerly supported public housing, the city and ELDi had to obtain a waiver from HUD to convert the property into retail. Having cleared the land, ELDi and the City of Pittsburgh began to recruit another anchor tenant to come to the neighborhood and, in 2008, they recruited Target to come to the site. While the Great Recession delayed Target's plans to open a store in 2009, they eventually did so in 2011, having worked out a TIF package and a CBA with ELDi and the City of Pittsburgh. While Target is mostly a department store, they do have a significant grocery section with all of the traditional grocery staples. Out of each of these individual cases, Eric Jester believed the Target was the biggest example of the city government underwriting the development in East Liberty. Even without considering the effort it took to clear the land and secure the agreement to build on it, Jester suggested that without heavy subsidy the store would not have happened: "it's worth $10 million but cost $20 million."

As they were planning and advocating development, ELDi made very intentional efforts to recruit retailers of a certain pedigree. They were not interested in attracting just any retailer to the community – specifically, they did not recruit discount grocers because, according to Fowler-

Searcy, they were skeptical of the quality of the food and the credibility of the stores. In the mid-2000s, an ALDI opened a block away from the Market District and less than half a mile away from another discount grocer, Bottom Dollar, which was already in the area. In 2014, the retailer Bottom Dollar sold all of its 66 grocery stores to ALDI. According to Fowler-Searcy, the Bloomfield-Garfield Corporation, a neighboring CDC, campaigned vigorously for ALDI to reopen the store in their neighborhood and succeeded. Despite their earlier skepticism, Fowler-Searcy said ELDi was pleased that ALDI came to the area: “we didn’t know we wanted an ALDI, but it turned out it was a good thing.”

By the end of 2017, the number of grocery stores had grown from three to seven within a half mile radius of one another. The density of the stores is also marked by diversity: stores are competing at various price points, offering different brands and selections, and each has their own particular style and shopping environment. According to the stakeholders, the early success of national chains and the regional population catalyzed the development of the cluster. These early developments were only made possible by the advocacy and subsidies of local government and the neighborhood CDC. Having developed a concrete timeline of the food oasis’s growth, I turn my attention to how the stores have organized themselves within the market, and how the stores diversify themselves from one another.

Specialization in the Food Oasis

What is remarkable about an urban food oasis is the geographic concentration of stores in a low-income urban area, in contrast to the prevailing dearth of grocers in urban areas. Before detailing what distinguishes the stores, I explore their similarities. Each of the stakeholders stressed the reason that East Liberty was appropriate for the retailers was its regional accessibility. Each of the stores are located on major thoroughfares that transect the city from the East End to downtown. To service all of the customers who are driving to these stores, each location has parking lots that rival the size of the stores themselves, and three of the stores have stacked parking garages, either above or below their store, that provide parking capacity that's perhaps double the retail space of the stores. Finally, the stakeholders identified neighborhood crime as a concern to the retailers and costumers. Six of the seven retailers have obvious security measures and security guards at the entrance meant to deter troublemakers outside the store from entering. What the grocers share in common, then, is proximity to major transportation routes, large parking lots, and assertive security measures.

Within this dense local market, each of the grocers have differentiated themselves in certain ways. The clearest differences between the grocers are their prices. The two ALDI's market themselves as discount grocers, offering a cheaper, more limited, mostly private brand selection of products. The next tier of grocers, targeting the mid-level food demographic, are the Target and the Giant Eagle supermarket. These two stores offer both national brands and generic store brands. Finally, the remaining three retailers market towards higher income earners, with more organic and specialty items than the other four stores advertise. Market District and Whole Foods offer larger quantities of fresh produce and reserve a large portion of the store for these offerings, while Trader Joe's, ALDI, and Target off a large selection of processed, packaged foods. In some ways, the offerings of the Giant Eagle supermarket, Market District, and Whole Foods are more oriented towards ingredients while the offerings of Target, Trader Joe's, and ALDI are more oriented towards meals that only need to be heated up. Further, the Giant Eagle supermarket, Market District, and Whole Foods are the only retailers to offer service stations with specialists, such as a butcher or a fromager. Each of the retailers have oriented themselves to different segments of the market by specializing their prices, brands, and services. Thus, the food oasis is populated with a variety of retailers at different price points rather than just a uniform supply of the same offerings.

Uneven Access to Grocery Stores

Grocery stores are not evenly distributed across Allegheny County, and the City of Pittsburgh has fewer stores than the surrounding suburbs. As an indication of the disparity, table 1 shows the breakdown of grocery stores between different regions in Allegheny County. The suburbs were broken down into a northern (north of the city, the Allegheny River, and the Ohio River), eastern (east of the city, south of the Allegheny River, and north of the Monongahela River), and southern (south of the city, the Monongahela River, and the Ohio River) regions. Of the four regions, Pittsburgh has the fewest grocery stores, despite having the second largest population. Of course, seven of Pittsburgh's stores are part of the Food Oasis, so the count of 23 is really an inflated measure of their distribution across the county. Comparing the number of people to the number of stores further indicates a divide in investments by grocery retailers – an urban-suburban divide that makes the density of stores in East Liberty all the more remarkable.

Table 1 Grocery Stores and Population by Region of Allegheny County

Area	Grocery Stores	People	People Per Store
Allegheny County	121	1,224,223	10,117
City of Pittsburgh	23	302,405	13,148
Northern	29	282,316	9,735
Eastern	25	247,402	9,896
Southern	44	392,100	8,911

Charting the locations of stores further iterates the urban/suburban gap. Figure 2 focuses on Pittsburgh and its immediate environs, distinguishing between the types of grocery stores based upon how they market themselves. While the discount and standard grocery stores appear to be evenly mixed, particularly to the south and east, the more luxury stores occur sparsely and bunch tightly together more often than the other varieties. The East Liberty food oasis is dense even for the discount and standard stores; however, the occurrence of the three luxury stores in this space makes the cluster much more remarkable. To the south, there is another pair of luxury stores, but they are only accompanied by one other store. The other clusters are not accompanied by luxury-type stores. Within Pittsburgh, there were no other clusters of stores, and three of the four high-end brands located anywhere in the city were in the oasis. The food oasis in East Liberty deviates from the patterns of grocery store locations across Allegheny County and in Pittsburgh, particularly considering the prevailing disinvestment.

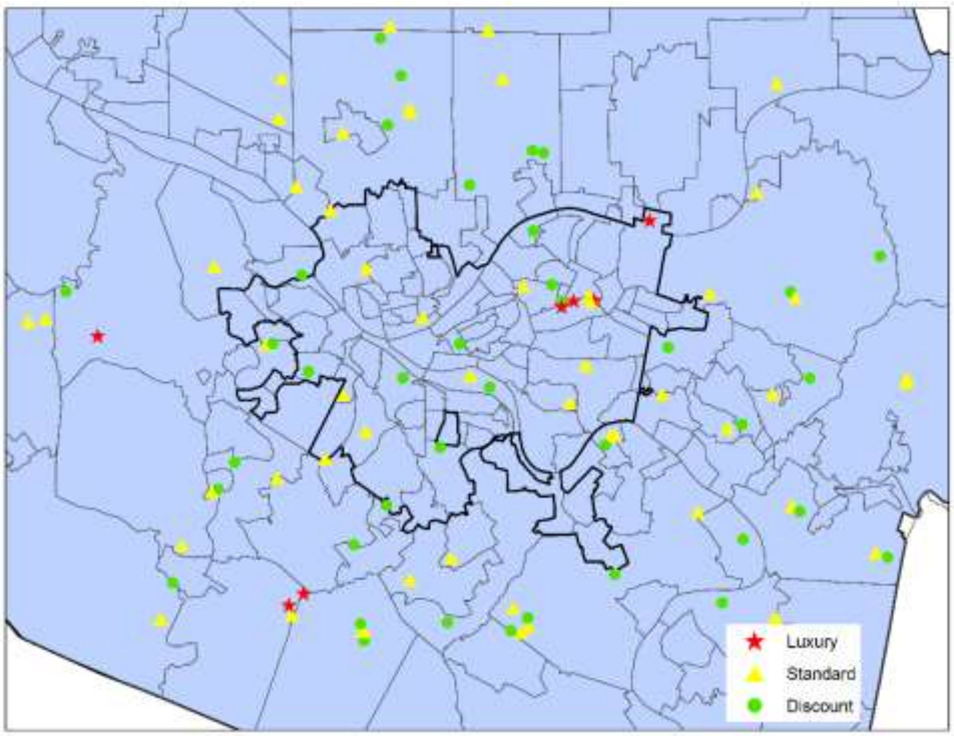

Figure 2 Grocery Stores by Type in the Pittsburgh Region

The issue of uneven access to supermarkets has animated most of the debate about grocery stores in the literature. A series of buffers were drawn around the grocery stores in Allegheny County to assess the coverage of stores. All of Allegheny County was within ten miles of a store but much of the county was beyond either a half-mile or one mile of a store, a measure of access for someone without personal transportation; these buffers are illustrated in Figure 3. Without considering transportation access, income, topography, or differences between markets, Pittsburghers are generally within one mile of a grocery store, although there are certainly regions of the city that would be considered to be unable to access a grocery store. The clustering of retailers in the east end of the city does not enhance accessibility because the addition of a store to the cluster does not improve the coverage across that part of the city; rather, it only adds variety to the existing cluster. Thus, to characterize the food oasis as evidence of Pittsburgh's wealth of food stores, or a recovery from urban disinvestment by retailers, would neglect the geographic inequity that still exists within the city itself – let alone between the city and its suburbs.

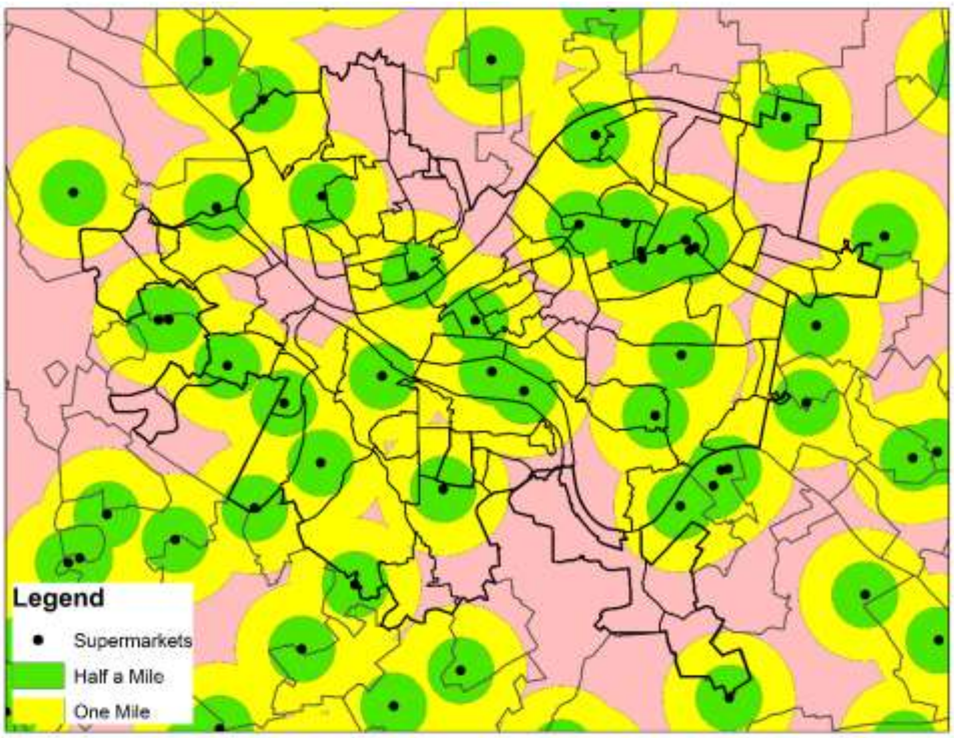

Figure 3 Access to Grocery Stores in Pittsburgh

Assessing Stakeholder's Assumptions

The stakeholders who were interviewed emphasized the surrounding regional wealth that can conveniently access an East Liberty retailer as the key feature of the food oasis's success. Considering that the first Whole Foods, Trader Joe's, and Market District stores to come to tristate, metropolitan area were located in East Liberty, the regional appeal argument is, at some level, moot, because being the only store of its kind in the entire region has some inherent regional appeal regardless of the specific location. Yet, all three of these retailers chose to densely cluster near one another and, as the market has progressed and similar stores have opened in other parts of Allegheny County, the East Liberty locations have remained successful.

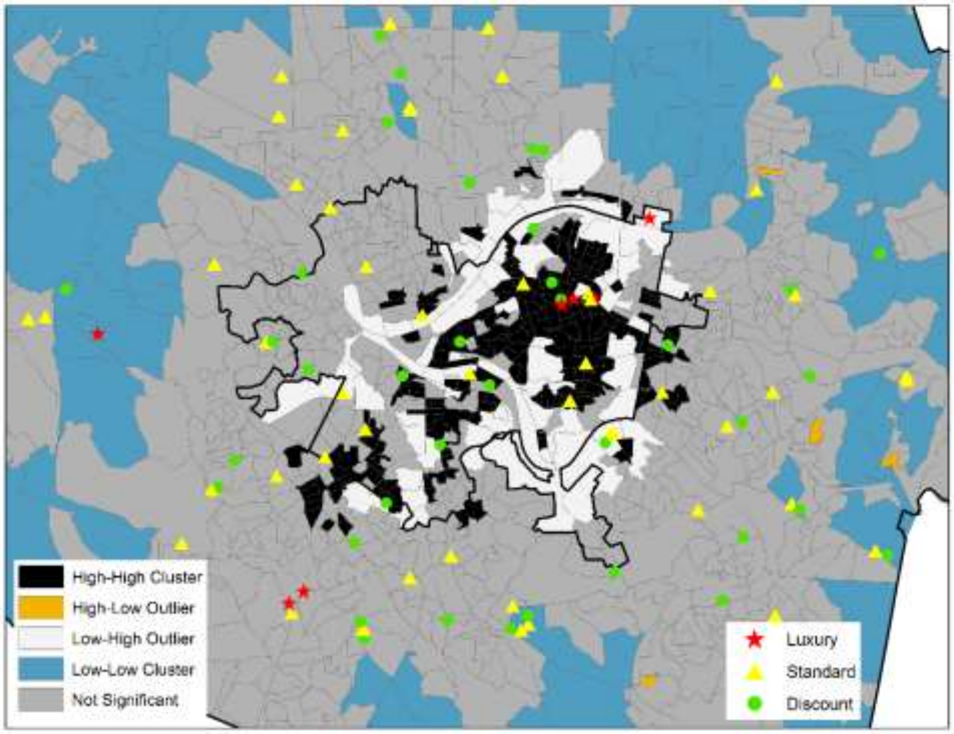

Figure 4 Clusters of High and Low Population Density in the Pittsburgh Region

To assess the stakeholders' claims about immediate regional wealth, I assessed the density of population in Allegheny County, shown in Figure 4. Represented in black, the densest population cluster in Allegheny County is located in Pittsburgh's east end and stretches southwest into the suburbs. The food oasis in East Liberty is within this dense section of population. For much of this area, the high-end retailers in East Liberty are the closest grocery stores. The white features around the dense areas are outliers, and are of relatively low density. The grey areas, which comprise much of Allegheny County, are neither significantly high nor significantly low density, while the blue features represent sections of the county with similarly relatively low population densities. What is clear from this map is that the food oasis in East Liberty is the only cluster of retailers in Allegheny County to service a dense cluster of population. The other clusters, which may have had a similar density of retailers, service a significantly lower density of population. The food oasis is well situated to reach a large regional population.

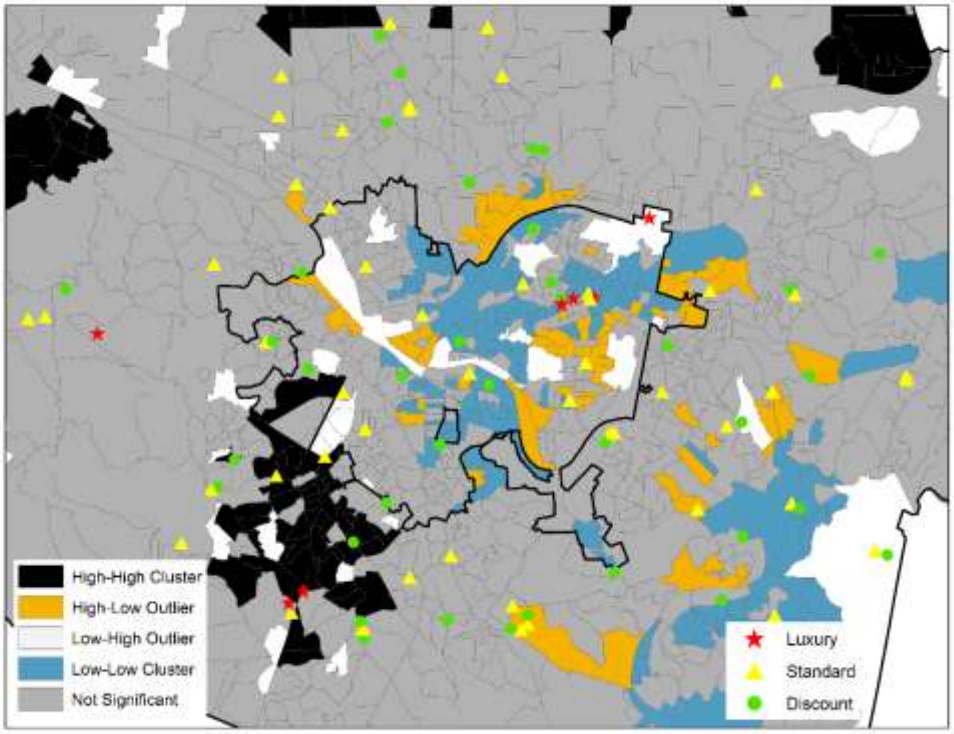

Figure 5 Clusters of High and Low Median Incomes in the Pittsburgh Region

The stakeholders stressed that it wasn't just the regional population that mattered but its affluence. By conducting the same analysis on median incomes, it is possible to assess the relative wealth within Allegheny County. Figure 5 reveals that the largest clusters of high earners are in the suburbs, where there is the least economic diversity, greater automotive dependence, and greater homeownership rates. Judging by median incomes alone, the two high end stores to the south would be appear to be better situated to reach that wealth. While the city is not devoid of high-income earners, the prevailing trend of greater poverty makes the affluent communities the exception rather than the rule. Indeed, the food oasis in East Liberty is almost centrally located within the largest cluster of low-income people in the county, and sits on an east-west axis of a nearly uninterrupted cluster of the lowest median incomes. Outliers to this trend, represented in yellow, are the high median income communities situated within the larger low-income cluster. The East Liberty food oasis is proximal to many of these communities, particularly Squirrel Hill to the south, Penn Hills to the east, and several suburban municipalities including Shaler, O'hara, and Aspinwall to the north. The food oasis is well situated to serve the regional higher income communities, but likely also serves a large, low-income constituency as well; the diversity in type of stores is, perhaps, a function of the large economic diversity in the region. The stakeholders' narrative was neglectful and even dismissive of the economic power of poor communities.

As prevailing economic trends only reveal so much about the argument the stakeholders were making, we need also to look at the intersections between population density and affluence. By performing the cluster analysis on the density of households earning more than $75,000 a year, I am able to highlight the regions of Allegheny County with the largest concentration of high income earners. Figure 6 shows that there are two large clusters of these earners in Allegheny County, one in the suburbs south of Pittsburgh and the other in Pittsburgh's east end. The food oasis is situated in a large cluster of high earning households. From these three analyses, the stakeholders' argument about regional affluence seems to hold up. However, surrounding the cluster of high income earners is also a large group of communities with relatively low densities of high incomes households, represented in white. The relative dearth of affluence in these communities, which were earlier identified as some of the densest communities in the county, confirms that the food oasis also serves a large number of low income households. High end stores, unlike the standard supermarkets or discount chains, seem to be much more organized around wealth and population density; in each of Figures 4, 5, and 6, standard and discount supermarkets appear to be spread much more evenly across different densities and economic classes.

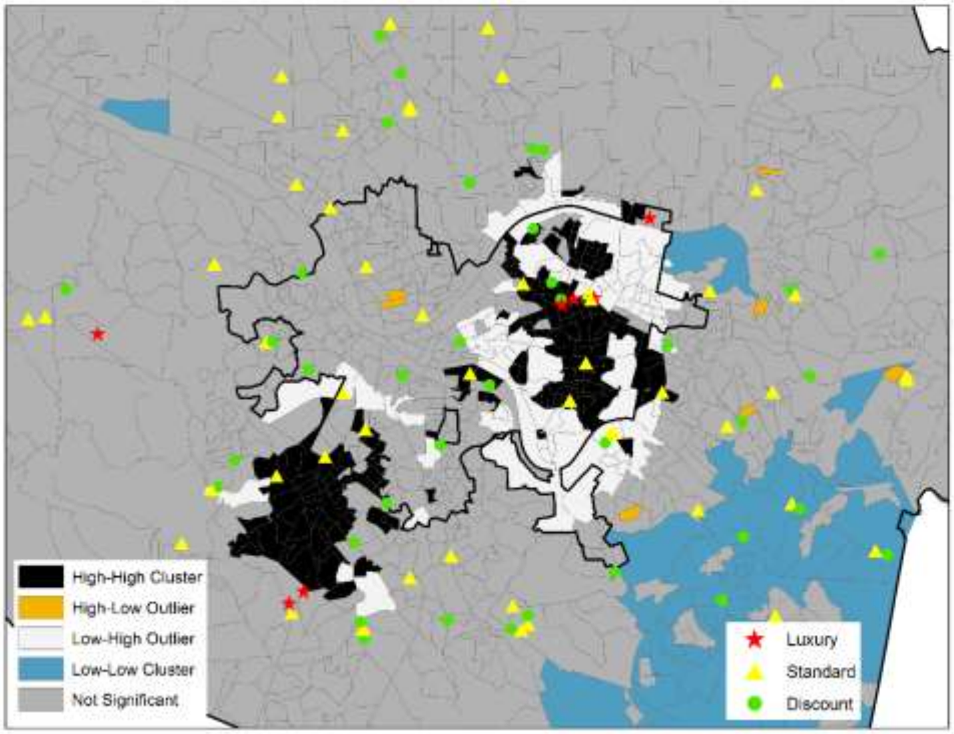

Figure 6 Clusters of High and Low Densities of Affluent Families in the Pittsburgh Region

Discussion

Why did the food oasis form?

A series of grocery retailers moved to East Liberty because of the initial advocacy and subsidy by local government that underwrote the original, successful reinvestment in the community and inspired subsequent investment by other firms. Patricia Fowler-Searcy attributed the success of Whole Foods as inspiration for Giant Eagle to upgrade to the Market District Brand, and Trader Joe's to reconsider the idea of moving to East Liberty. Even though the appropriate regional market existed for these national chains to enter and succeed, local government had to significantly reduce the barriers to entering the market for the firms to do so. Local government's actions did not alleviate a food desert –three retail locations already existed – but did prompt a greater concentration of stores, elevating economic activity in that particular part of the city. Also critical to each of the developments was the availability of cheap land, whether it was abandoned because of urban renewal or recently cleared for investment by local government. Grocery stores have grown significantly in size since the mid-1900s. The food oasis would not have developed if the local government had not cleared vacant land and public housing to create parcels large enough to accommodate a grocery store.

The East Liberty location is able to support such a dense and diverse set of retailers because of convenient transportation infrastructure and a dense, mixed-income regional population. Stakeholders highlighted the regional affluence of Pittsburgh's east end as the key factor for the food oasis. Thus, Eric Jester espoused the idea that there were "no such things as food deserts – only money deserts." Jester, Mayor Murphy, and Coleman each emphasized wealth as the reason for the concentration. Figures 4, 5, and 6 did support their argument that the food oasis was centered in a dense, affluent region with affluence; among the high-end retailers, this demographic context appears to matter a great deal. However, the presence of discount or standard grocers in East Liberty seem to exist more because of the dense, mixed income population in the region. There is a dense enough population at all incomes levels to support the range of seven retailers. From the available data, it is clear that the food oasis developed because of strong advocacy, subsidies, and land management by local government, along with a dense regional population that could support seven retailers at a variety of price levels.

Consequences for the Community

Significant, intensive regional economic activity, at least within grocery retail, is now occurring within East Liberty. Economic activity comes with certain benefits, namely jobs that did not previously exist. While CBA's ensure that a portion of the new jobs are reserved for community residents, the new jobs are predominantly low wage, unskilled positions with scant opportunity for professional growth. These jobs do not support the development of community wealth and, considering the inflation of rents in the community, do not guarantee the ability to remain in the community. The surge of economic activity seems to be destabilizing and gentrifying the community that had lived in East Liberty. Local press have document the pressure that the new investments have placed on existing residents and businesses. Local businesses that may have been able to benefit from the regional activity have been either unable to afford rising rents or not had their leases renewed (Hayes, 2017). Further, the destruction of affordable housing to pave the way for development, matched by an invigorated neighborhood real estate market and rising rents, places pressure on residents who become priced out of the area, and are, perhaps, even displaced into a food desert (Deto, 2015). Finally, as corporate retailers seek to expand in the community, there are other casualties, such as two affordable apartment buildings that are being demolished to make way for a larger Whole Foods that had been proposed (Belko, 2017).

The stakeholders have argued that the Whole Foods, Trader Joe's, and Market District improve everyone's access to food. However, considering the range of retailers that have developed, the high end retailers do not appear to meet the entire community's needs—they appear to largely cater to the affluent. When the stakeholders refer to the surrounding regional wealth, they are generally referring to the affluent, majority-white communities. The community CDC and city government went to great lengths to recruit and underwrite the Whole Foods, Target, Market District, and, originally, even the Trader Joe's. They also went to great lengths to remove the high-rise subsidized public housing that existed, replaced only a portion of the units, and lobbied HUD for permission to replace one of the housing parcels with retail, ensuring enough available land for a Target to be built. The CDC and city government's effort to develop retail in East Liberty have done more to serve affluent residents than poor ones and, according to the reports of local media and may have come at the expense of the many poor, Black residents no longer able to live in their community. According to the 2015 ACS, the citywide median income among Black residents was $23,566 compared to a median income of $49,562 for white residents – a tremendous financial divide in the ability to afford higher housing and food costs. If rents in the community are increasing as much as by what reported in the media, many Black residents will likely be displaced. The efforts of local government and CDC to support grocers in East Liberty appear to have done much to destabilize the formerly poor, majority Black community.

Conclusion

The food oasis in East Liberty developed because of cheap land, a dense regional population, and strong advocacy by the city government. By employing a mixed-method approach, this study was able to triangulate the perspectives of key community stakeholders, elicited via interviews, with an analysis of spatial statistics in a GIS-based framework. It was shown that in East Liberty, local government took an active role in subsidizing development, securing land, and recruiting the original corporate retailers. The success of the first developments inspired subsequent investments and, after about a decade, a dense cluster of seven retailers were operating in the East Liberty area. The regional population in Pittsburgh's east end is the densest cluster in the county and is a mixed income community with both the lowest median incomes and highest densities of affluence; this dense, mixed-income community supports a diversity of retailers at a range of price points. However, while East Liberty's position as a historic commercial center had previously given the community political and economic power, the new political economy – characterized by a concentration of capital in ever fewer multinational firms – promotes local economic activity, but not necessarily local economic growth. The reinvestment in East Liberty has had negative consequences for the community and endangered the capacity of many long-term residents to remain in the neighborhood.

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