

Toward a Localized Analysis of Quality Food Access on Chicago's South Side

Food deserts, as defined in the American Planning Association's *Planner's Guide to Community and Regional Food Planning*, are areas characterized by their "malfunctioning food system", often resulting in inadequate healthful local food destinations (Raja et. al. 2008: 3). What has been less well-defined has been what is meant by an optimal food destination—in some accounts, this includes all outlets for food purchase, but in others, only larger supermarket-style purchasing venues are considered (Raja et. al. 2008: 3). In the case of Chicago food access analysis, the latter approach has most often been utilized. According to the seminal 2006 Chicago Food Desert report by the Mari Gallagher Research Group, the study's working definition of a food desert is "areas with no or distant *grocery stores*" (2006: 5, emphasis added). This report also expressly defines what is considered to be a grocery store in terms of the store's size: "chain grocery stores... Jewel, Whole Foods, Dominick's, and Trader Joes... [and s]maller and/or independent grocers" (Mari Gallagher 2006: 13). In further explanation of their report's definition, the Gallagher Group states that, in their store count criterion, "... 'convenience' and 'corner' grocery stores were excluded." (Mari Gallagher 2006: 13) The fact that a relevant food outlet is defined by an extremely arbitrary set of parameters (perceived size or being part of a chain) makes the usefulness of store size as a metric for food access extremely questionable. A focus only on large retail institutions, particularly "major player" or "chain" establishments, especially when truly discussing *access to nutritious food* as the Mari Gallagher report claims to be (2006: 13), is quite problematic, especially for the specific case of Chicago. There are indeed alternative outlets for food access besides chain and large grocery stores—the Gallagher study's explicitly ignored convenience and corner stores, which are ubiquitous, particularly in the South and West Side regions identified by the study as having diminished food access. A definition of a

food desert simply in terms of its local access to a large or major grocery store does not even begin to capture the fact that there is access to food in these communities through these corner stores, but it may or may not be up to the highest nutritional standard. Furthermore, a reliance on chain and large grocery stores (and especially the opening of new stores) to solve problems of access to nutritious and fresh foods ignores the important role that accessible, neighborhood-based food purchasing establishments like corner stores and small groceries already assume due to their accessibility, temporal ‘staying power’ (length of tenure as a food purchasing destination) and subsequent geospatial integration into these specific types of urban communities. This paper will use measurements of vehicle and transit accessibility as well as a quantification of staying power for corner stores for six representative South Side neighborhoods to provide a more accurate portrayal of access in the region, and then compare these results against the metric of the Gallagher food desert study to demonstrate that food access measurements and solutions in areas like Chicago’s South Side should rely on a more localized concept of access.

Background

This paper focuses on six South Side Chicago Community Areas, or individual neighborhoods: Grand Boulevard, Hyde Park, Kenwood, Woodlawn, Washington Park, and East Side. These are the six neighborhoods included in the first phase of the South Side Resource Mapping project, a data-collection initiative that will be described in greater detail in a later section. It is often the case that the South Side of Chicago is portrayed as a largely homogenous geographic area, with predominantly low-income or impoverished minority residents. It is true that there are a number of overall demographic patterns that make the South Side unique as

compared with other broader regions in Chicago, but it is also notable that each neighborhood has its own more localized set of conditions. Understanding the socioeconomic context of both the region at large as well as each area's individual characteristics is essential to analysis of food access within the region.

The data in Table 1 indicate some key demographic statistics for the six target neighborhoods. Five of the six neighborhoods—Hyde Park, Woodlawn, Kenwood, Grand Boulevard, and Washington Park—are located together on the mid-South Side of Chicago (see Fig. 1 for geographic reference.) Many of these areas (Grand Boulevard, Washington Park, and Woodlawn) are overwhelmingly majority Black neighborhoods. These three also exhibit extremely low median incomes, averaging only slightly over \$15,000, and a very high percentage of residents below the poverty level, over 45% on average. Hyde Park and Kenwood, primarily because they are near to the University of Chicago and its associated community, do tend to have a more diverse population (that is, a higher percentage of affluent and non-Black residents) with respect to other South Side neighborhoods. This is shown to be the case both with regards to race and ethnicity as well as socioeconomic factors. However, these neighborhoods are also geographically adjacent to the Woodlawn-Grand Boulevard-Washington Park area and this helps to maintain true diversity. Kenwood, in particular, has a clear divide between the affluent southern portion (nearer to the University) and the middle-to-lower class northern area, a distinction that is not immediately evident in the raw data itself (Pattillo 2007). East Side is not geographically adjacent to any of the other five neighborhoods. It is located much further south and east, abutting the Indiana-Illinois border (see Fig. 1). As is clear from Table 1, East Side has a significant Hispanic population (note that, for the purposes of Census data, Hispanic is

considered to be an ethnicity and is indicated separately from race.) Its income and poverty levels, however, are similar to those seen in Hyde Park and Kenwood.

Community Area	Median Income	% White	% Black	% Other	% Hispanic	% Below Poverty Level
Grand Boulevard	14178	0.6	97.7	1.7	0.8	46.9
Kenwood	36612	15.9	75.7	8.4	1.6	24
Washington Park	15160	0.5	97.5	2	1	51.6
Hyde Park	35991	43.5	37.7	18.8	4.1	16.5
Woodlawn	18266	2.8	94.2	3	1.1	39.4
East Side	39724	29.4	1	69.6	68.1	12.4

Table 1. Demographic statistics for the six Community Areas of study. (Source: 2000 United States Census, http://data.cmap.ilinois.gov/chicagoareahousing.org/List_CCA.asp)

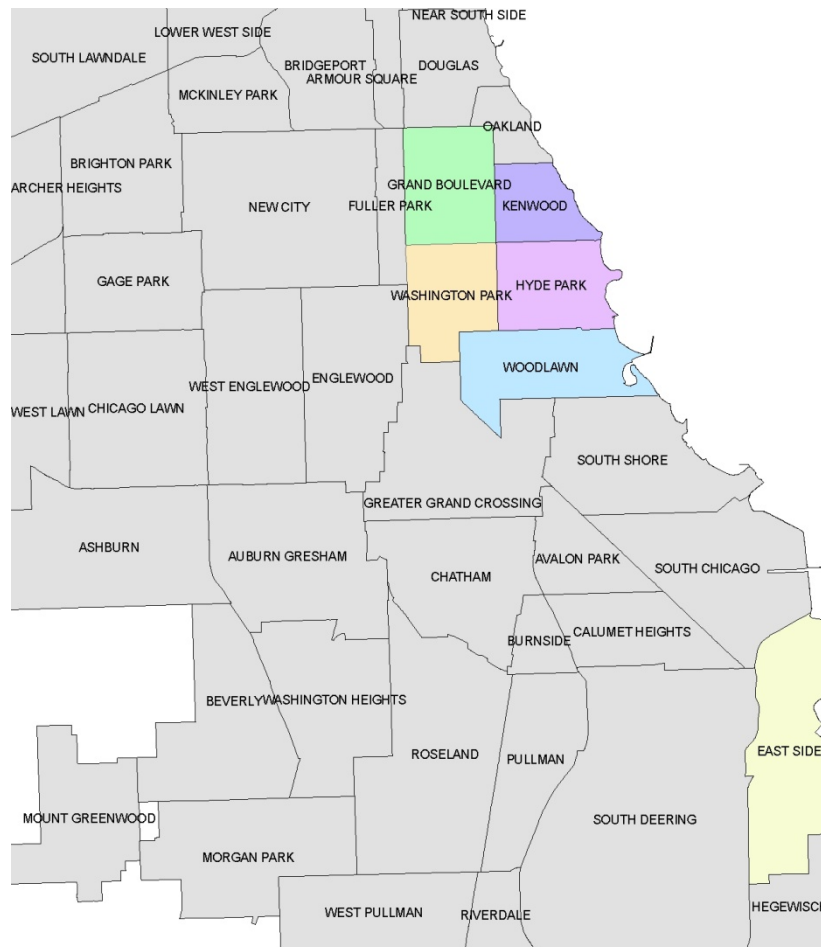


Figure 1. South Side Chicago Community Areas. Target CAs for the first pass of the SSRM project are highlighted. (Source: City of Chicago, <http://www.cityofchicago.org/>)

Alwitt and Donley (1997) take note that small stores are a major presence in urban zones, particularly in and around poorer areas. They argue that store size is also shown to be a good predictor of the “poorness” of a ZIP code (Alwitt and Donley 1997: 155). In particular, both large grocery stores and drug stores are found to be extremely accurate in defining poor/non-poor tracts: non-poor areas have significantly more of both of these types of large or chain institutions per capita, even when economic differences like purchasing power are controlled for (Alwitt and Donley 1997: 152). In a predecessor report to the 2006 Mari Gallagher work, the Metropolitan Chicago Information Center (MCIC) identified its own set of “major player” food purchasing locations—Jewel, Dominick’s, Aldi, and Cub Foods (MCIC 2003: 2)—and subsequently came to the conclusion that predominantly Black community areas—and particularly those on the South Side—were the most underrepresented with regards to the establishment of these stores (MCIC 2003: 19).

Community Area	Total Stores	Total 'Grocery'	Total Chain (Local/National)	Total “Major Player”
Grand Boulevard	13	3	0	0
Kenwood	3	2	1	0
Washington Park	8	2	0	0
Hyde Park	10	3	1	0
Woodlawn	18	4	1	1
East Side	11	3	2	2

Table 2. Totals for food locations by categorization or type, listed by neighborhood. (Sources: SSRM 2009, MCIC 2003)

Looking at the types of stores actually located in South Side neighborhoods, evidence for these same patterns emerges. Of 63 total retail food locations in the area (this includes all locations categorized as ‘grocery’, ‘small grocery’, and ‘convenience’), only a few are large enough to be considered “supermarkets”, the denotation primarily correlated with the ‘grocery’ categorization (that is, large enough to have multiple departments). Even fewer are either local or national chains, an identification key to the Gallagher and MCIC publications (Gallagher 2006:

13, MCIC 2003: 2). Table 2 shows the breakdown of food locations by type for each neighborhood.

Perhaps the most interesting result from this breakdown of the data is the fact that there are only three total major players in the entirety of these six neighborhoods. Two of these, a Jewel-Osco and an Aldi store, are in East Side, a significant distance from the other five neighborhoods and thus not especially accessible to that region as a whole. The one major player location in Woodlawn is an Aldi, which is considered to be a discount grocer and not a full-service chain like Jewel-Osco or Dominick's (NICFSA 2008[b]). There are also few local or national chain grocery establishments in any of the neighborhoods. As can be seen by comparing the grocery and total store numbers, it is clear that the primary mode of food access for these communities, at least in a numerical sense, is via small grocery stores, corner stores, and convenience stores. There are not many large supermarkets, either major players or local chains, already established in these regions. The Northeastern Illinois Community Food Security Assessment found that, between the years 2005 and 2007, more full-service chains like Jewel and Dominick's closed or moved out of poor neighborhoods in Chicago than opened, leading to an overall net decline in these locations—and, according to the SSRM data, this trend clearly has not changed on the South Side since these evaluation dates (NICFSA 2008[b]).

It is important to mention that not all of these Community Areas have been expressly identified by the Mari Gallagher food desert project as being 'food deserts' under their metric in the 2006 Chicago Food Desert report. Most of Washington Park and Grand Boulevard fall within identified food desert regions, as well as a small portion of southwestern Hyde Park and northwestern Woodlawn (Gallagher 2006: 8). However, in different measurements within the same study, the entirety of the South Side is highlighted as having body masses in the highest

tertile relative to the rest of Chicago, a disparity that the authors correlate with insufficient accessible healthful food options (Gallagher 2006: 10). Furthermore, recent legislation in both the Illinois State legislature as well as the United States House of Representatives has targeted Chicago, and the South Side in particular, as regions for added research and support in addressing problems of access to nutritious food (IL-SJ0072, US H.R. 3100). As a hotbed for food desert locations as well as policy activism and attention for these issues, the South Side presents an excellent case for study for innovative solutions to the problem of food access in poor communities. Because the purposes of this paper entail not only a reevaluation of the methods and findings of the 2006 Mari Gallagher report, but also a broader re-envisioning of how to approach food access on Chicago's South Side, it was important that a variety of different perceived and actual levels of access within neighborhoods were represented within the study regions.

Previous research has demonstrated the significant public health impacts of living in regions with limited food access, highlighting why a solution to the access disparity is urgently needed. Mari Gallagher Research Group also analyzed the variety of negative health effects seemingly correlated with living where fresh food is less accessible. Occurrence rates of and death rates due to diabetes, cancer, and cardiovascular disease are vastly higher, even when controlling for income and other seemingly interfering variables (Gallagher 2006: 7). Also notable is that children who attend school in neighborhoods where convenience stores are their easiest or only choice for snacking are more likely to make high calorie purchases from these locations before and after school, and there is a strong correlation between a child's access to junk foods during and around school time and childhood obesity and diabetes (Borradaile et. al. 2009, Kellogg Foundation 2009).

Methodology

As previously stated, six neighborhoods on the South Side of Chicago were selected as target regions for stores: Hyde Park, Kenwood, Grand Boulevard, Washington Park, Woodlawn, and East Side. These neighborhoods were selected because they were the initial subjects of a comprehensive, street-level survey undertaken by the South Side Health and Vitality Initiative at the University of Chicago called the South Side Resource Mapping Project (SSRM). This project provided one of the most accurate listings of actual functioning businesses in these neighborhoods on the South Side, because turnover and closure is so frequent in these neighborhoods, especially in retail (Alwitt and Donley 1997). The first data collection cycle took place in summer of 2009, when a team of researchers traveled to every address within the selected neighborhoods. All businesses and resources were logged and categorized. The information collected in the field was later verified using tax records and phone follow-ups. The three SSRM categories selected for our target group were the three food sales categories, ‘small grocery’, ‘convenience’, and ‘grocery’. This yielded 64 distinct addresses. Of these, nine addresses were not used in analysis of small stores because they were a supermarket or chain establishment (e.g. Aldi, Save-a-Lot, Treasure Island, Jewel), because they were temporarily closed or had been demolished by time of writing, or because they had been improperly coded in the dataset and did not actually represent a food establishment. This left 53 target corner store cases: 9 in Hyde Park, 2 in Kenwood, 16 in Woodlawn, 8 in Washington Park, 10 in Grand Boulevard, and 8 in East Side. (See Appendix for a complete listing of store names, categorizations, neighborhoods, and addresses.)

For the analysis of car ownership (as a proxy to access to personal automobile transportation) demographic data from the 2000 Census was analyzed on a neighborhood-by-neighborhood basis. In the format provided by the Census, counts are given by Census tract. The tracts fit within Chicago Community Area delineations and so all respective tracts were calculated under their neighborhood identification. The data from the Census Bureau is also presented as raw numerical counts of households owning the specified number of vehicles, so a simple percentage calculation was taken for each Community Area by summing its contained census tract data and dividing by the total number of housing units. Finally, the Census provides this data categorized by owner-occupied and renter-occupied housing units, but since this distinction was not vital to the purposes of the paper, data from the two categories were added together and summarized in aggregate format.

Further evaluation of an appropriate store ‘access radius’ was conducted, in part, using GIS transit time modeling data provided by the South Side Resource Mapping Project. Two different access concepts were used in the model. The first identified the time for a one-way trip to the nearest store location from any given block within the neighborhood region. The second gave the time for a trip from a block to any store option in the surrounding contiguous area (thus, the model for East Side, which is non-adjacent to the other five neighborhoods, was calculated on its own.) In both access concepts, whichever of the bus transit or walking modalities would be fastest was used to calculate the time of the trip indicated on the maps. The model utilized the locations of this paper’s target stores in the SSRM database as endpoints for trips (grocery and small grocery locations only; convenience store data was not available for the model, and none of these locations currently sell significant quantities of fresh foods as indicated by field visits), as well as Chicago Transit Authority bus routes and schedules. Using this modeling technique

allowed for the representation of selection between multiple transit routes as well as multiple end locations (options for stores) based on the travel time required. Train routes were not considered, since South Side rail options for local trips are limited. For all transit-based trips, an average estimate of wait time was added into the time for the trip based on typical bus headways (space between individual buses.) Additionally, the model operates under the assumption that a transit-based trip would be taken at a time during which all of the local bus routes would be in operation (that is, not extremely early in the morning or late at night and on a weekday—few bus routes have 24-hour, 7-day-a-week service). Finally, on February 15, 2010, the CTA initiated a round of service cuts, eliminating some express routes and increasing bus run headway times. For simplicity’s sake and to provide a visualization of the most ideal access conditions on the South Side (maintaining that service levels may eventually be restored pending funding), the model was based on pre-February 15, 2010 routes and service levels. Essentially, the model represents the overall “best case scenario” situation for transit to and from stores, both for the closest possible destination or the overall accessibility of all food purchase locations in the area.

In order to quantify the metric of “staying power”, the addresses from the SSRM database were cross-referenced to City of Chicago records for business permits and licensing via a Freedom of Information Act (FOIA) accession of the licensing database. Also, the age of the building was ascertained, wherever possible, using the Cook County Assessor’s Office address look-up, to provide perspective on the age of the actual architectural infrastructure (that is, whether most South Side corner stores were newly build or new uses of older existing space.) This allowed for a quantification of the length of time that a particular address had been a *retail food establishment*. Restaurants were not included in this grouping, while convenience, grocery, and dollar stores that listed food sales as a primary function were included. Changes in business

name and/or ownership were ignored, as the most important variable in this metric was the actual length of time that the food outlet had been established. The historical limits of the computerized database were estimated by City staff to only include information back to about 1970 (the remainder still contained in paper archival records), but none of the target addresses required information older than this. One location did not have licensing information available and so was not included in the computation (that is, only 52 of 53 locations were used in percentage calculations.)

Because little to no published information exists describing what the actual conditions are of being a “corner” store or small grocer on the South Side of Chicago, a field analysis of the target store sites was also undertaken. Again referencing the SSRM address listings, each store was visited in person and, using a standardized evaluation form (see Appendix), the current store inventory for both fresh produce as well as other fresh foods (milk, dairy, meats, et cetera) for each address based on any present stocking of fresh foods at time of visit was recorded. Notes on the general impression were also taken for each site, providing further relevant qualitative data on each location (size, quality of food offered, infrastructure and stocking techniques, characteristics of customer base, et cetera.)

There are clear advantages and disadvantages to using a neighborhood-based approach for data accumulation and analysis. For the purposes of this study, the greatest advantage was the accessibility and existence of data sets already quantified by neighborhood/Community Area (the two terms are virtually interchangeable with relation to Chicago geography.) Because it was necessary to rely almost exclusively on existing datasets, such as the SSRM listings and 2000 Census data, being able to cross-reference easily between sources made neighborhood-by-neighborhood analysis the most logical choice. The largest drawback was in relation to the

modeling of transit accessibility and trip times in the GIS model. Because of the arbitrariness of neighborhood boundaries (as well as the limitation of information about store locations to only within the six SSRM CAs), so-called ‘edge effects’ became evident in certain instances of the model, especially when dealing with the very small, narrow area of East Side. Naturally it would be illogical to assume that no food access occurs outside of mostly-invisible neighborhood boundaries for the purposes of these models as well as for data like store counts within neighborhood (though some do correlate with major highways, large arterial roads, waterways, railroad tracks, and other barriers to easy passage and thus do have some effect on inter-neighborhood accessibility.) However, the degree of localization and simplicity of data access offered by using a neighborhood-based scale of analysis was deemed to outweigh the induced errors for the purposes of this paper’s investigation.

Data

Vehicle ownership is frequently used as a proxy for car access in a region. It is a well-known and established pattern that urban cores and metropolitan regions tend to have lower automobile ownership rates than do more suburban and rural areas (Handy and Clifton 2001[a,b]). Additionally, even within large city boundaries, car ownership seems to vary by internal region, correlated with income as well as neighborhood demographic characteristics. That is to say that while cities overall have lower car ownership rates than other less dense parts of the country, different groups of people within cities are more or less likely to own cars even relative to others living in the same city. This is evident in a neighborhood breakdown of vehicle ownership data from the 2000 US Census from Chicago’s neighborhoods as compared with aggregate data for the City of Chicago as a whole.

Community Area	Total housing units	% 0 vehicles	% 1 vehicle	% 2 vehicles	% 3+ vehicles
Grand Boulevard	9790	62.0	27.9	7.9	2.3
Kenwood	8935	37.2	47.4	11.9	2.8
Washington Park	4742	61.1	29.7	6.7	2.6
Hyde Park	14360	35.1	49.8	12.8	2.2
Woodlawn	10163	54.3	35.1	35.1	2.1
East Side	7399	15.8	40.5	32.2	11.4
<i>AVERAGE OVER CA</i>		<i>44.3</i>	<i>38.4</i>	<i>17.8</i>	<i>3.9</i>
<i>Chicago ALL</i>		<i>28.8</i>	<i>43.5</i>	<i>21.4</i>	<i>6.3</i>

Table 3. Car ownership (number of vehicles owned per housing unit) by Community Area, given as percentage of all housing units. “Average over CA” represents the average ownership percentage by number of vehicles over all six Community Areas represented in this paper, and “Chicago ALL” represents the average over the entirety of the City of Chicago. (Source: 2000 United States Census)

Bearing in mind that the neighborhoods with higher median incomes and lower poverty rates (Hyde Park, Kenwood, and East Side) have rates for one vehicle owned of at least 40% and as high as nearly 50%, and the more impoverished neighborhoods (Grand Boulevard, Woodlawn, and Washington Park) have rates for no vehicle ownership well over 50%, it is evident that demographics (race and correlated economic features in particular) do indeed play a role in car access. However, it is also notable that (taking these communities to be representative of the South Side of Chicago as a region) the average for no car ownership is nearly twice as high over these neighborhoods in general as it is for the entire city. As is established in the data from Table 3, Chicago’s overall average rate of vehicle non-ownership (that is, those housing units who indicated on the census that their household owned 0 vehicles) is 28.8%, while the average rate within the area of study for no vehicle ownership is significantly greater at 44.3%.

The city’s public transportation system, operated by the Chicago Transit Authority, or CTA, is an alternative transportation option for South Side residents to use to travel to and from their daily destinations, particularly when there is no access to a personal vehicle and the walk is too far, unpleasant, or even dangerous. The primary form of local public transit within South

Side neighborhoods is the bus. Both commuter rail and heavy rail rapid transit lines also run through the area, but, as mentioned previously, stops and service are sparse enough such that they are generally not used for local trips. Bus stops are usually located every few blocks on local lines, and sometimes every block along major routes (see figures 2-5). This means that there is easy access to stops to get to and from desired destinations, but it also means that stops are frequent and, as a result, service is fairly slow. This is evident in the length of trip times shown on the maps in figures 2-5. Bearing in mind that the shorter trip of walking and taking the bus was indexed for any given block in this model, it is likely that the trips closest to 0 minutes (shown in the darkest green on all maps) represent walking trips only, due to the included average waiting time based on bus headways included in all bus trips. For trips to the nearest store (figures 2, 3), we see many blocks with times at or over 10 minutes (orange and red regions) in both the greater Hyde Park region as well as in East Side (ignoring edge effects in the latter case.) In the model for travel time to *any* food purchasing option, even the lowest threshold for travel times runs up to 20 minutes (in the case of the Hyde Park region) and 12 minutes (in the case of the East Side neighborhood), and as high as approximately a half-hour in both cases. This means that if, for whatever reason, the closest food purchasing option is not the best choice, it will most likely take a resident of either of these neighborhoods at *least* 20 minutes and possibly even closer to 30 minutes on average to reach any of those other stores within their region, even if the added speed of public transit is considered for longer trips.

Another consideration in addition to the transportation factor of accessibility is the likelihood that food store locations will actually remain a part of the neighborhood for a significant length of time. Instead of relating to the immediate food security of a region, this measure, referred to here as “staying power”, indicates the degree of long-term food access stability. It has already

been demonstrated that retail business in general is prone to turnover in poorer urban neighborhoods (Alwitt and Donley 1997). Furthermore, the NICFSA 2008 report notes that, in neighborhoods on the South Side of Chicago as well as others demographically similar to our target neighborhoods, retail changes frequently enough to cause problems not only in accessing it but also in measuring and observing it through less-frequently updated databases (NICFSA 2008[b]). As previously noted, the study also observed that chain stores on the South and West Sides lacked staying power, with more locations closing than opening between 2005 and 2007 (NICFSA 2008[b]). Considering all of this, it is interesting to note that a general pattern of overall stability emerges for corner stores in our six neighborhoods. According to the length of time the addresses currently providing food for sale have maintained retail food licenses, 47, or 89%, of the 52 listed locations had been food stores for at least five years. Only four fewer locations, 43 out of 52 or just over 81%, had remained in business with a retail food license for ten or more years. In light of the mostly unchanged data on the net loss of chain grocery establishments presented by the NICFSA report as well as the store count analysis of the SSRM addresses, it is clear that corner and small grocery stores have a “staying power” advantage within South Side neighborhoods relative to major player locations.

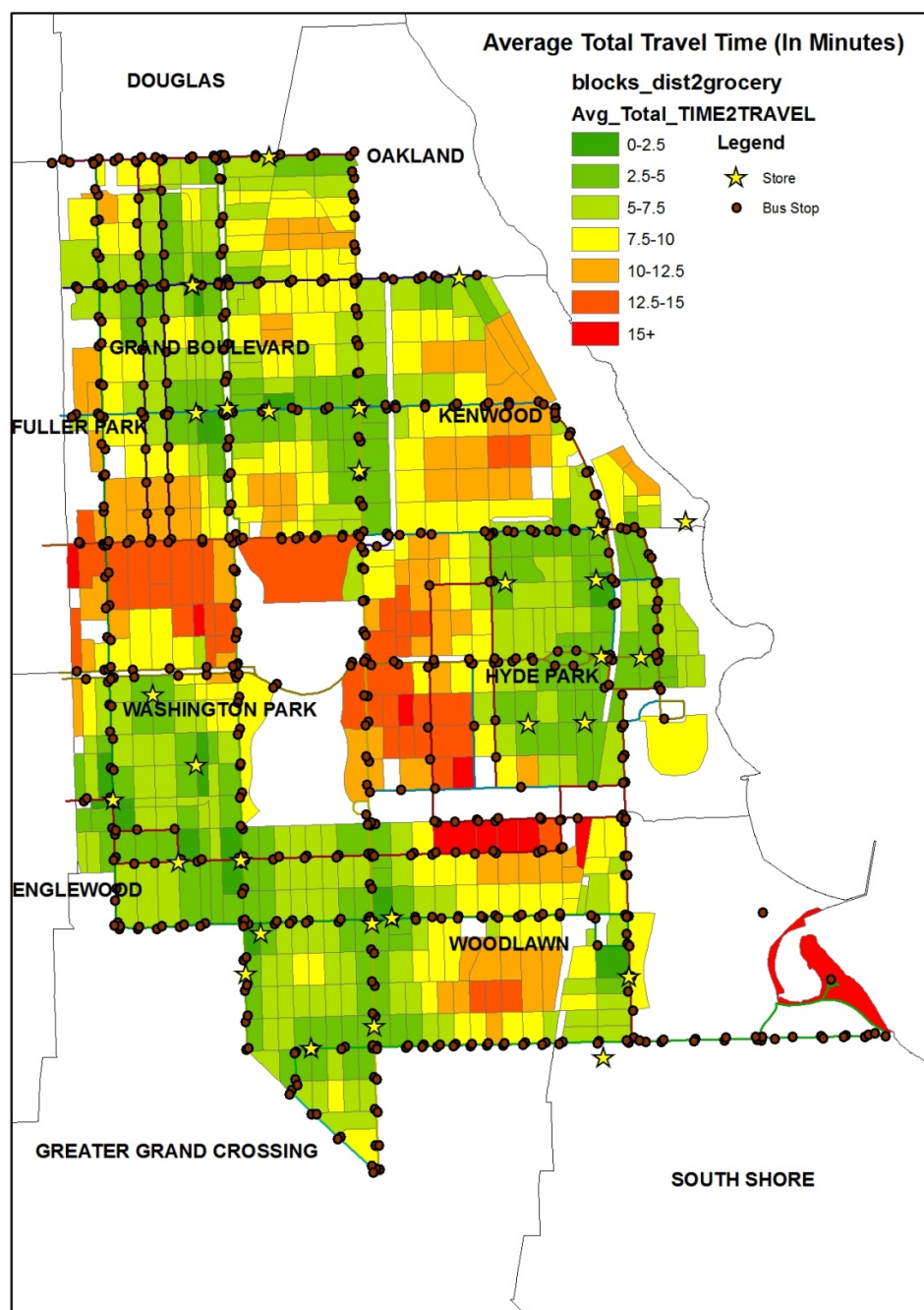


Figure 2. Travel times by block to *nearest* food purchasing option, Hyde Park/Kenwood/Washington Park/Grand Boulevard/Woodlawn region. Times are for one-way trip, in minutes.

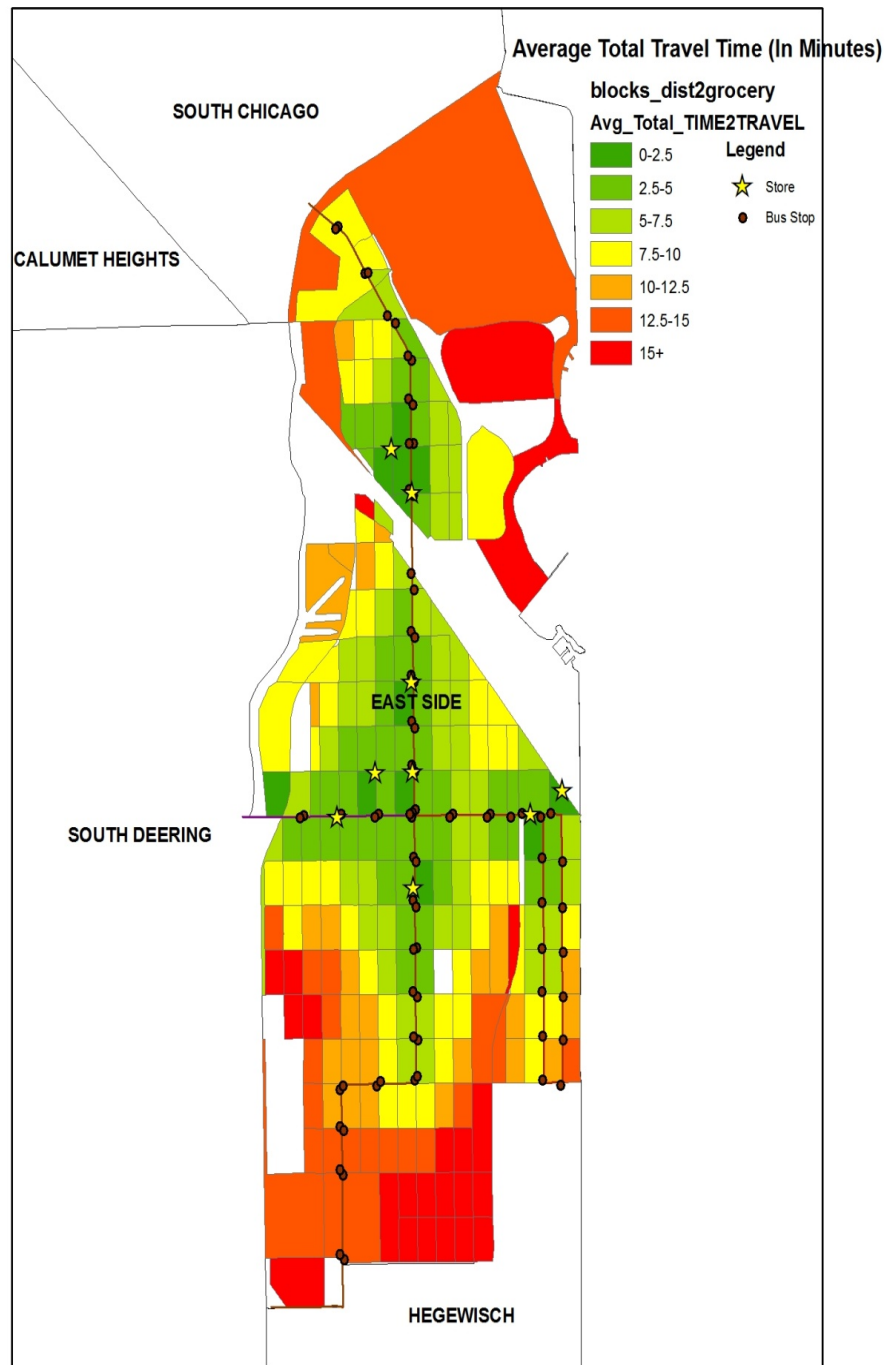


Figure 3. Travel times by block to *nearest* food purchasing option, East Side neighborhood. Times are for one-way trip, in minutes.

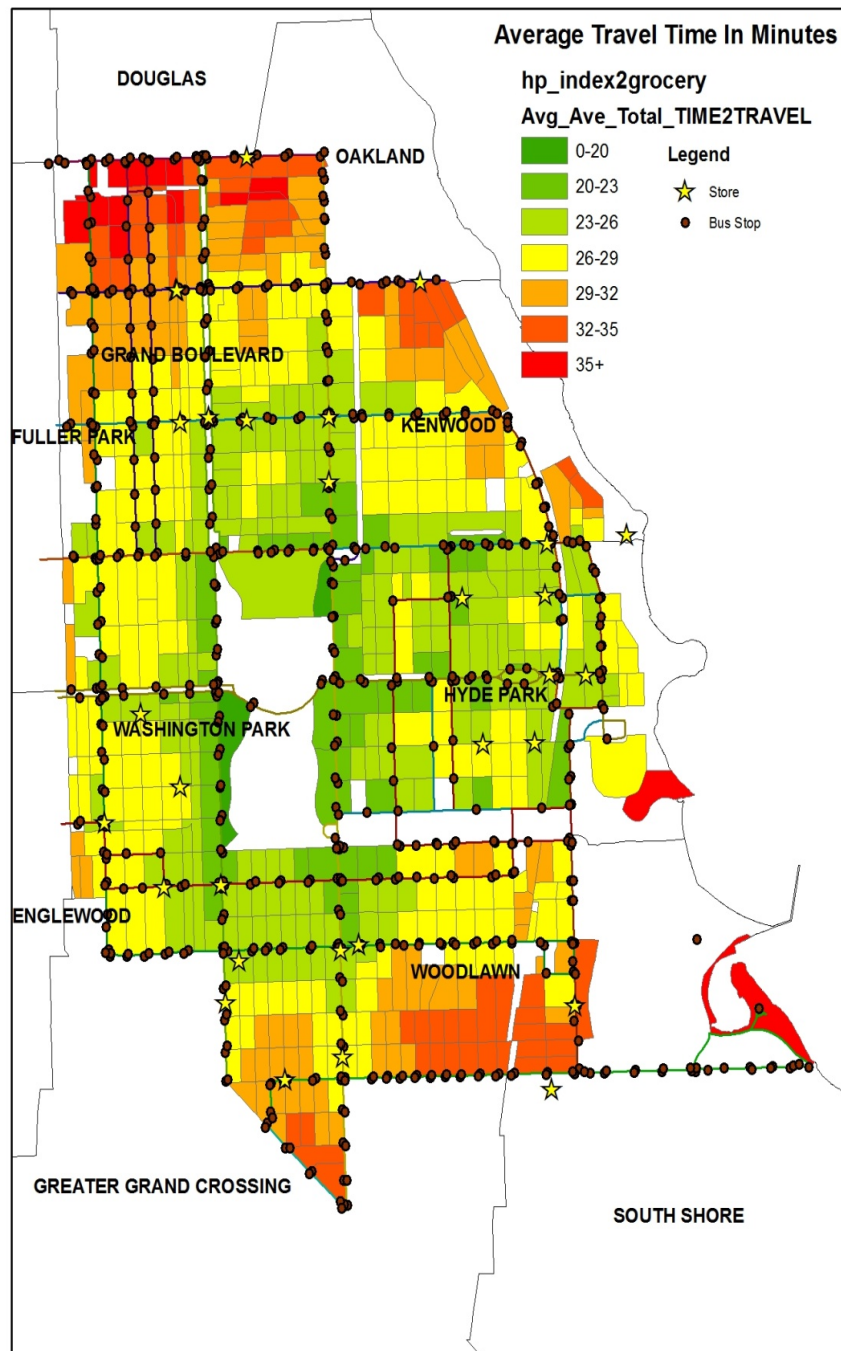


Figure 4. Travel time (average) to *any regional* food purchasing option, Hyde Park/Kenwood/Washington Park/Grand Boulevard/Woodlawn region. Times are for one-way trip, in minutes.

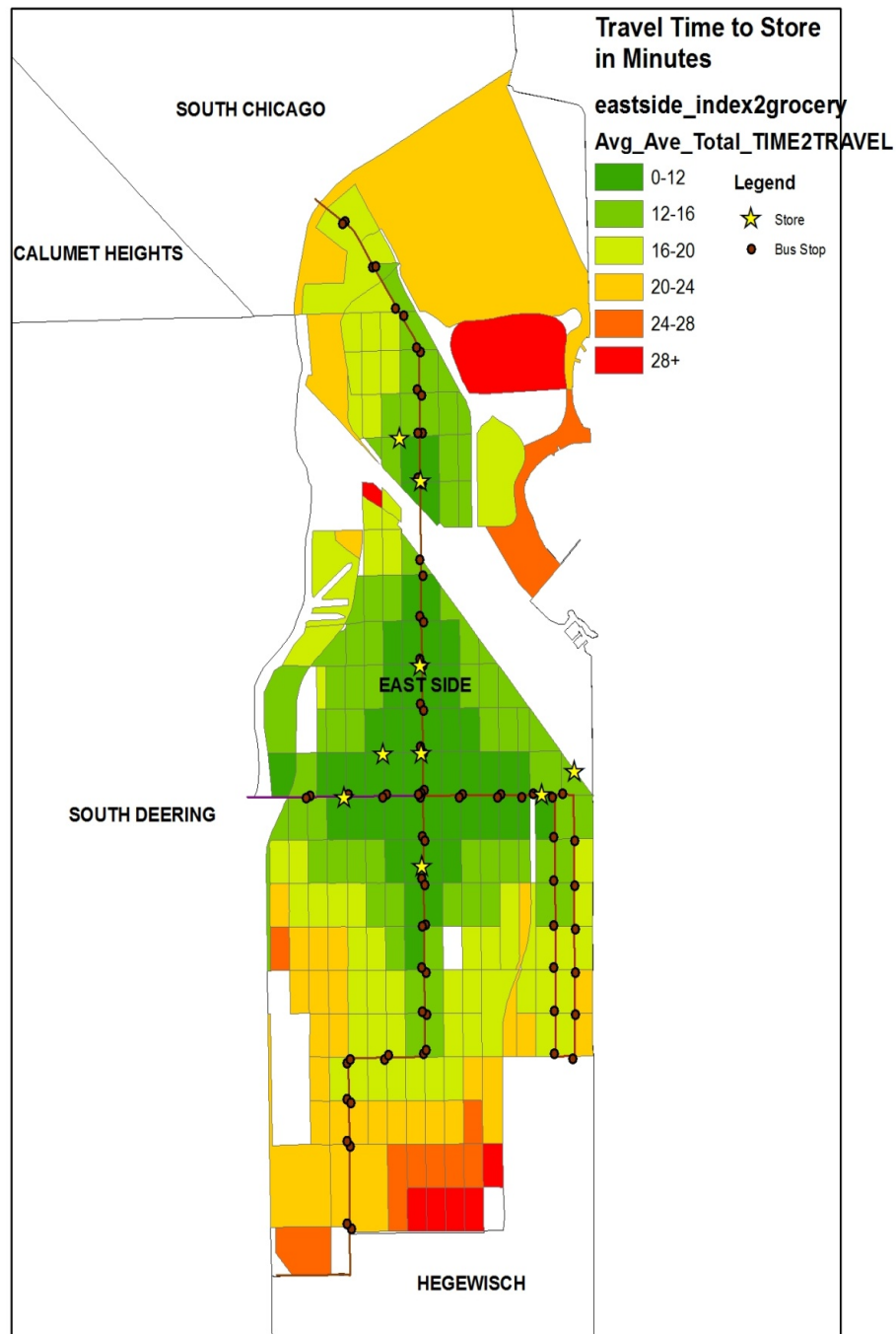


Figure 5. Travel time (average) to *any regional* food purchasing option, East Side region. Times are for one-way trip, in minutes.

Discussion

The 2006 Mari Gallagher food access study proposes a one-mile “access radius” in order to indicate the location and extent of Chicago’s food deserts (Gallagher 2006: 12). This radius implies that a distance of one mile from a grocer is considered to actually be routinely accessible by residents of the community, and thus is used as the basis for the metric to determine whether or not an area is officially defined as a food desert by the measures of the 2006 study.

Furthermore, the only types of food purchasing establishments considered in this accessibility metric are chain and independent large grocers, with smaller corner and convenience-type stores ignored entirely (Gallagher 2006: 5). Using this definition, an area is automatically a food desert if there is not a *major player or chain grocery store* within a *one-mile* radius of most or all of the residents of that community. Because this report and other food access studies like it are being used to make major policy decisions, it is extremely important that the way that they describe food access is accurate to actual conditions. Considering the data on our six South Side communities described in the previous sections, three major conclusions can be drawn by contrasting the perspective of access in this paper with the recommendations and generalizations of the 2006 Mari Gallagher food desert report.

One: considering a single supermarket location within one mile to be sufficiently accessible is not well supported considering the limitations of public transit and pedestrian travel and low rates of automobile ownership within these neighborhoods. Lower-income urban communities are more likely than even other urban neighborhoods to have large proportions of their population that do not own cars. (Clifton 2004). This tendency is also evident in the rates of vehicle ownership for our six South Side communities, where the average is almost half that of the average for the city as a whole (28.8% as compared to 43.3%.) The poorest communities,

Grand Boulevard, Woodlawn, and Washington Park, had a majority (over 50%) of residents unlikely to even have access to one vehicle. Obviously, those without an accessible personal vehicle must utilize other modes of transportation to make daily trips, including those to food purchasing outlets. This leads to longer times for trips and shorter distances for reasonable access. As demonstrated by the average transit times on the CTA system when modeling the “best case” scenario of food purchasing, trips to even the closest stores might take around 10 minutes either on foot or by bus. If one wants to expand the options to include any of the food purchasing locations within a region, times begin to approach and exceed 20 minutes one-way—and this is considering the present food purchasing environment, not a more centralized version with more large chain stores, wherein transit times to only those locations might be even higher for distant blocks.

Walking to and from stores is an extremely common access technique in urban cores as a result of density and cost and/or disadvantages of car ownership and usage (Handy et. al. 2002). This is especially the case in poorer areas like the South Side, where automobile access is limited primarily based on prohibitive cost. Thus, pedestrianism represents the least costly alternative mode of transportation (Clifton 2004). However, most urban planners accept that the average urban pedestrian is only willing to walk about one-half of a mile in a one-way trip (Handy et. al. 2002, Handy and Clifton 2001 a and b, Sallis et. al. 2004). The USDA even uses this half-mile limitation on walking in its most recent assessment on community food access (USDA 2009). Because personal motor vehicle access is far less likely in these areas and transit and walking provide a more fixed and smaller reasonable region of accessibility, understanding the limitations these alternative modes of access place on time and distance traveled for resources is crucial. A smaller radius than the one mile proposed by the Gallagher study is likely needed to

truly identify problems of food accessibility in South Side Chicago communities, and, subsequently, to adequately plan and carry out solutions to these access issues once the areas of need are properly identified.

Two: corner stores seem to integrate more permanently into the South Side neighborhoods, as demonstrated by their superior staying power tenure as contrasted with transient and patently non-urban large chain establishments. While the Northeastern Illinois Community Food Security Assessment points out that, in the past five years, more chain grocers have left the South Side than have opened new stores there (NICFSA 2008[b]), the data on staying power of corner stores shows that, in that same five-year period, 89% of current licensed non-supermarket retail food establishments have maintained their licensed status. This is not a trivial distinction—it could provide insight into exactly why chain establishments have been so unsuccessful in the recent past in regions like the South Side. Urban neighborhoods are simply more dense than suburban regions, where supermarkets originated. While supermarkets by their nature take up a large footprint, complete with requisite parking lot, corner stores utilize small storefronts within the urban grid and offer street parking if any. Building a new supermarket also requires a huge input of open space, and in urban locations, the options for these open spaces may not be neither ideal nor central for the community.

Although food purchasing expectations have shifted toward the “one-stop” supermarket mentality, for those without access to a personal automobile—like many residents on the South Side—the convenience of a centralized mega-store grocer declines in light of the limitations of carless shopping (Clifton 2004, Handy et. al. 2002). Carless shopping calls for a different type of trip and desirable destination when purchasing food, and, as already has been discussed, for the South Side this is not an insignificant consideration. Grocery shoppers without cars give extreme

preference to the nearest food store (Clifton 2004). They also must consider the practical aspects of their trip: how to carry whatever quantity of food they purchase back home, for example, and whether or not the food they purchase will stay fresh, cold, or frozen on the trip back (Clifton 2004). The further the distance, the less desirable and practical the location becomes, sometimes regardless of food prices, selection, or quality. Yet, the assumption that a one-mile access radius is reasonable, combined with the very centralized and isolated conditions of supermarket-style shopping, runs in direct contrast to the demonstrated food shopping needs of urban communities. While supermarket shoppers generally shop in one large less frequent trip, less centralized locations encourage multiple, smaller trips (Handy and Clifton 2001[b]). The current state of car ownership throughout the South Side seriously undermines the large supermarket's ability to truly provide accessible quality food for the carless portion of the population.

Three: With regards to using measures like the "food desert" designation to plan for future efforts to improve food access, cities like Chicago should by no means be focused solely on large chain establishments, but should also consider corner stores and other creative local options as routes for improvement. Small corner stores are already accessible as food purchasing destinations, and, while they are ignored by major studies like the Gallagher Group's report, many also already make efforts to sell (at least some) fresh foods. Since financing is already being promoted to incentivize building brand-new chain establishments in low-access regions in Chicago, it is clear that there are already both policymakers and parties with monetary resources interested in improving quality food access whose efforts could feasibly also be directed toward corner stores. Pennsylvania's Fresh Food Financing Initiative is one current example of using funding for a diverse pool of food store recipients, including small and corner stores (Raja et. al. 2008, Giang et. al. 2008). There are also a number of creative local-scale solutions already in

place, both in Chicago as well as in other urban areas in the United States, such as mobile Green Cart produce vendors and expanded farmer's markets nationwide.

With such clear evidence that corner and convenience stores form a majority of the food purchasing infrastructure in many regions of Chicago, one might wonder why reports like the Gallagher study explicitly choose to ignore them as part of their access metric. Of course, it is fairly evident, at least anecdotally, that in their present form, convenience and corner stores are generally not actively ameliorating the food access situation. In many ways, they may even be standing in opposition to efforts thereof. These outlets often do devote a significant portion of shelf space to “cheap calories” like processed packaged foods and soft drinks, and they are especially detrimental to the food system landscape because they are presented in such easy-access situations within neighborhoods (Alwitt and Donley 1997, Borradaile et. al. 2009). However, it is precisely for reasons of easy access and ubiquity that these corner stores should be considered some of the most useful routes to a community-based solution to food deserts. Furthermore, many of these overlooked stores do already sell fresh foods, from a smaller selection of popular fresh grocery items to full ranges of produce and even extensive meat and dairy options. If it were possible, and even encouraged, for the stores that do not already do so to begin selling healthy foods to their communities, actual access to nutritious foods could be dramatically increased without any new construction or advocacy for large major player stores. Not only could the introduction of fresh food into corner and convenience outlets on the South Side benefit consumers who would otherwise have difficulty accessing these products, it could potentially economically benefit the proprietors of small stores as well.

There are presently a number of frequently cited barriers to the sale of fresh foods, and namely produce, in small outlets such as corner and convenience stores. Stores like these have a

smaller footprint than chain supermarkets, and therefore their shelf space becomes a scarce and valuable commodity, driving prices up as compared to their larger counterparts (Alwitt and Donley 1997: 161, Leibtag 2006: 3). There is also significant evidence that, in the produce distribution market currently in place, the overwhelming scale differences between the biggest buyers and sellers and smaller players causes pricing and purchasing power to skew advantageously toward the largest distributors and producers (Richards and Patterson 2003: 1). Of course, this is not even to mention the significant infrastructure necessary for a store to sell produce and other fresh foods, such as refrigeration and cold storage space (NICFSA 2008[b]). However, it is important to note that many convenience and corner stores already note significant success in offering fresh fruits and vegetables. Small grocery stores, such as so-called ‘bodegas’ in many Hispanic-oriented communities, stock a full and culturally-specific selection of produce, as well as other fresh foods like meats and dairy products (NICFSA 2008[c]). In some well-known convenience outlets like Seven-Eleven, offering fresh produce in an economical manner is achieved through new innovations in packaging and fresh food vending. Leaders in convenience store sales even claim that convenience stores are becoming increasingly dependent on fresh food sales with cigarette and ‘junk’ food sales on the decline due to public opinion (Horovitz 2009). Clearly a store’s size alone does not automatically determine the quality or ‘freshness’ of the food products it offers for sale, and small size does not prohibit the profitable sale of such items as fresh produce.

There are also many small food stores on the South Side that already provide a variety of fresh foods. During the writing of this paper, many of the target store locations were visited in the field and evaluated based on what was actually offered for sale in the store, instead of a fairly non-descriptive categorization of ‘convenience’, ‘grocery’ or ‘small grocery’. The majority of

convenience-type locations did offer predominantly processed and packaged products, and these were found most in the three poorest neighborhoods (Woodlawn, Grand Boulevard, and Washington Park). However, all of the small grocery and grocery stores offered at the very least a decent selection of fresh produce, as well as meats, dairy, milk, and eggs. All six neighborhoods had a multiplicity of these types of stores. Moreover, many of the corner stores offered fresh items in a store footprint comparable to those of the convenience stores, without specialized storage or sales equipment (produce was offered in unrefrigerated bins during the day, and the coolers used for other fresh products were identical to those used for cold soft drinks).

The NICFSA report conducted interviews with some store owners in food insecure communities to ask about why they chose to offer the types of products that they did. Most who did not currently offer produce and other fresh foods cited cost factors (buying, waste, storage and infrastructure) as their biggest barrier (NICFSA 2008[a,c]). If money is truly the largest issue, then there are indeed funds already available in Chicago to improve food access in needy communities. At present, these funds are primarily being directed toward efforts to locate new chain and major-player supermarkets in food-insecure communities. Both the Food Trust and the Local Initiatives Support Coalition are non-profits that are currently directing food access enrichment funding programs within Chicago that primarily support incentivization for new large and chain grocers (LISC 2007). What if, however, funds were also made available to existing stores to begin to offer fresh foods or improve their offerings? Pennsylvania's success with their Fresh Food Financing Initiative (FFFI), a program aimed toward not only building new stores but also enhancing existing ones, includes not only improved accessibility metrics within the communities, but also more money remaining within local economies as fewer

residents must leave to access the quality food that they need (Giang et. al. 2008). Small stores utilizing funding from the FFFI were able to offer competitive prices and higher-quality products, in addition to improving their infrastructure to support fresh food sales (Giang et. al. 2008). Illinois recently started its own Fresh Food Fund in 2009, but at present its primary aim is supermarket growth (Food Trust 2010).

If the chain supermarket is indeed a less desirable solution to improve food access, there are a number of options for working within the existing infrastructure on the South Side to improve the quality of food offered in localized ways other than brick-and-mortar store locations throughout the neighborhoods. Many of these types of efforts are already in place in urban neighborhoods across the country. One creative solution being used in New York City incorporates new permits issued by the city for mobile produce vendors, which are known as “Green Carts”. The permits are given priority in the neighborhoods of highest food access need. An advantage of these types of mobile solutions is that, unlike permanent store locations, they can move throughout the day to fit the specific needs of the community. During the day, they can be available to provide fresh fruit as snacks around schools and workplaces, and in the evening, they can relocate to residential neighborhoods for last-minute produce sales at mealtime (NYC: DOHMH 2010). Another initiative in place in urban neighborhoods across the country is increasing access to farmers markets in food-insecure communities. *A Planners Guide to Community and Regional Food Planning* points out a number of these new markets specifically targeted toward lower-income neighborhoods. Through new policy and technology, markets are able to accept alternative forms of payment, like EBT, WIC and SNAP (federal food stamps), allowing residents to not only take advantage of their government-provided benefits in their own

neighborhood, but also to interact with farmers and experience local, seasonal products (Raja et. al. 2008).

Of course, the analysis of the food access situation presented in this paper is far from complete or perfect. First and foremost, while the six communities studied do provide a fairly broad perspective on the diverse conditions of the region, by no means is this a substitute for a larger region-wide data set. Maintaining the most up-to-date database of businesses on the South Side is by no means easy, due to the aforementioned problems with retail turnover as well as the enormous labor costs of in-person canvassing in order to be as accurate as possible. However, the South Side Resource Mapping project does have plans to eventually expand its efforts of data collection over a much larger area. Additionally, this paper's approach to the six neighborhoods as closed systems instead of as parts of an overall regional food network is also unrealistic. This was primarily done for ease of data analysis, because most of the small-scale collection has been done by Chicago Community Areas, but clearly neighborhoods interact with one another and residents are free to choose food options outside these arbitrary boundaries. This discrepancy lead to some noticeable edge effects in the mapping portion of the study, where edge portions of the neighborhoods showed the highest travel times to stores because the model had no information about what options might lie just over the border. Simple inclusion of a larger dataset, which was unavailable at the time of writing, would address this issue.

This paper also did not begin to address the numerous complex interactions in a food system in real time—for instance, what happens to the entire food system when a store, particularly a large supermarket, opens or closes. Some research already exists on this front, especially with regards to large major-player types of destinations. The Center for Urban Research and Learning at Loyola University Chicago studied the economic impacts on small

local businesses when a Wal-Mart Supercenter established itself in the West Side neighborhood of Austin in 2006. They found that 82 of the 306 area businesses that were open when the Wal-Mart opened had closed by 2008 (Davis et. al. 2009). If opening supermarkets on the South Side were to have a similar effect on small businesses due to competition, it could be argued that the food environment would actually become less accessible as small neighborhood stores close and fresh foods are only available in a highly centralized location. Further research into whether or not similar effects from competition between chain and corner stores might occur if more supermarkets were to be opened on the South Side would provide an even better long-term perspective on the dynamic conditions of an urban food system.

Conclusions

While the Mari Gallagher Research Group's 2006 study and other previous studies have provided useful broader depictions of Chicago's food landscape, they provide a less-than-adequate portrayal of actual access to quality food on a more local level. Without a nuanced perspective on local conditions, any measurement or analysis of quality food access is incomplete. Levels of personal vehicle ownership, mass transit accessibility, and tenure of corner store locations all point toward a smaller-scale, highly local idea of access on the South Side. Following from this, any measurements or solutions to so-called "food deserts" should utilize a smaller access radius for stores (certainly smaller than Gallagher's 1 mile), should bear in mind the success of corner stores with regards to tenure, and should not focus solely on large supermarkets to wholly solve problems of access. In view of the present amelioration efforts in place in Chicago, a shift in funding and emphasis away from supermarkets alone and toward

more localized introductions of fresh food would help policies to be as effective as possible in these regions.

References

- Access to Affordable and Nutritious Food: Measuring and Understanding Food Deserts and Their Consequences*. 2009. United States Department of Agriculture.
- Alwitt, Linda F., and Thomas D. Donley. 1997. Retail Stores in Poor Urban Neighborhoods. *Journal of Consumer Affairs* 31, (1): 139-64.
- American FactFinder: Census 2000. United States Census Bureau [database online]. 2000 [cited 12/21/2009]. Available from http://factfinder.census.gov/home/saff/main.html?_lang=en.
- Borradaile, Kelley E., Sandy Sherman, Stephanie S. Vander Veur, Tara McCoy, Brianna Sandoval, Joan Nachmani, Joan Karpyn, and Gary D. Foster. 2009. Snacking in Children: The Role of Urban Corner Stores. *Pediatrics* 124, (5): 1293-8.
- Chain Reaction: Income, Race and Access to Chicago's Major Player Grocers*. 2003. Metropolitan Chicago Information Center.
- City of Chicago GIS data in City of Chicago [database online]. [cited 3/10/2010]. Available from http://www.cityofchicago.org/city/en/depts/doi/supp_info/gis_data.html.
- Clifton, Kelly J. 2004. Mobility Strategies and Food Shopping for Low-Income Families: A Case Study. *Journal of Planning Education and Research* 23: 402-13.
- Davis, Julie, David Merriman, Lucia Samayoa, Brian Flanagan, Ron Baiman, and Joe Persky. 2009. *The Impact of an Urban Wal-Mart Store on Area Businesses: An Evaluation of One Chicago Neighborhood's Experience*. Center for Urban Research and Learning: Loyola University Chicago.
- Englewood and West Englewood Community Area Report*. 2008(a). Northeastern Illinois Community Food Security Assessment.
- Finding Food in Chicago and the Suburbs: The Report of the Northeastern Illinois Community Food Security Assessment*. 2008(b). Northeastern Illinois Community Food Security Assessment.
- Food Desert Oasis Act of 2009*, US HR 3100, (2009): <http://www.govtrack.us/congress/bill.xpd?bill=h111-3100>.
- The Food Trust - Supermarket Campaign. The Food Trust. [cited 3/10 2010]. Available from <http://www.thefoodtrust.org/php/programs/super.market.campaign.php#illinois>.
- Gallagher, Mari. 2006. *Examining the Impact of Food Deserts on Public Health in Chicago*. Chicago, IL: Mari Gallagher Research Group.

- Giang, Tracey, Allison Karpyn, Hannah Burton Laurison, Amy Hillier, and R. Duane Perry. 2008. Closing the Grocery Gap in Underserved Communities: The Creation Of the Pennsylvania Fresh Food Financing Initiative. *Journal of Public Health Management Practice* 14, (3): 272-9.
- Handy, Susan L., and Kelly J. Clifton. 2001(a). Evaluating Neighborhood Accessibility: Possibilities and Practicalities. *Journal of Transportation and Statistics* Sept/Dec: 67-78.
- Handy, Susan L., and Kelly J. Clifton. 2001(b). Local Shopping as a Strategy for Reducing Automobile Travel. *Transportation* 28: 317-46.
- Handy, Susan L., Andrew DeGarmo, and Kelly J. Clifton. 2002. *Understanding the Growth in Non-Work VMT*. Southwest Region University Transportation Center Center for Transportation Research.
- Hegewisch Community Area Qualitative Report*. 2008(c). Northeastern Illinois Community Food Security Assessment.
- Horovitz, Bruce. 2009. *USA Today* 2009. http://www.usatoday.com/money/industries/food/2009-10-11-7-eleven-bananas-wrap_N.htm (accessed 10/11/2009).
- Illinois Senate Joint Resolution on Food Deserts*, Illinois SJ-0072, (2009).
- Leibtag, Ephraim. 2006. *The Impact of Big-Box Stores on Retail Food Prices and the Consumer Price Index*. United States Department of Agriculture Economic Research Service, 33.
- List of Census Tracts by Community Area in Chicago Metropolitan Agency for Planning [database online]. [cited 12 2009]. Available from http://data.cmap.illinois.gov/chicagoareahousing.org/List_Tract.asp.
- List of Chicago Community Areas: Census Data. [cited 12/21 2009]. Available from http://data.cmap.illinois.gov/chicagoareahousing.org/List_CCA.asp.
- NYC Green Carts. New York City Department of Health and Mental Hygiene. 2010 [cited 3/10 2010]. Available from http://www.nyc.gov/html/doh/html/cdp/cdp_pan_green_carts.shtml.
- Obstacles to Children's Access to Good Food: A Closer Look at Food Deserts and Solutions*. 2009. W. K. Kellogg Foundation.
- Pattillo, Mary. 2007. *Black on the Block: The Politics of Race and Class in the City*. Chicago, IL: University of Chicago Press.
- Raja, Samina, Branden Born, and Jessica Kozlowski Russell. 2008. *A Planners Guide to Community and Regional Food Planning: Transforming Food Environments, Facilitating Healthy Eating*. Planning Advisory Service report 554. Chicago, IL: American Planning Association.

- Richards, Timothy J., and Paul M. Patterson. 2003. *Competition in Fresh Produce Markets: An Empirical Analysis of Marketing Channel Performance*. United States Department of Agriculture Economic Research Service, report no. 1.
- Sallis, James F., Lawrence D. Frank, Brian E. Saelens, and M. Katherine Kraft. 2004. Active Transportation and Physical Activity: Opportunities for Collaboration on Transportation and Public Health Research. *Transportation Research Part A* 38: 249-68.
- South Side Health and Vitality Study: South Side Resource Mapping Project. South Side Health and Vitality Study [database online]. 2009 [cited 10/1/2009]. Available from <http://www.southsidehealth.org/index.html>.
- Urban Neighborhood Markets: Alternatives to Traditional Grocery Stores/Supermarkets in Local Initiatives Support Campaign [database online]. 2007 [cited 3/10 2010]. Available from <http://www.lisc.org/content/publications/detail/4527/>.

Appendix

Business Name	Address	Community Area	Category
Hyde Park Produce	1226 E 53rd St	Hyde Park	Retail - Grocery
Bonne Santé Health Foods	1512 E 53rd St	Hyde Park	Retail - Small Grocery
Open Produce LLC	1635 E 55th St	Hyde Park	Retail - Small Grocery
Quick Snack Inc	1658 E 55th St	Hyde Park	Retail - Convenience
University Market	1323 E 57th St	Hyde Park	Retail - Small Grocery
Harper Foods Inc	1455 E 57th St	Hyde Park	Retail - Small Grocery
Village Foods	1521 E Hyde Park Blvd	Hyde Park	Retail - Grocery
Del Prado Market	5301 S Hyde Park Blvd	Hyde Park	Retail - Convenience
Ingleside Food Mart	5117 S Ingleside Ave	Hyde Park	Retail - Convenience
One Stop Foods	4301 S Lake Park Ave	Kenwood	Retail - Grocery
Market in The Park	5050 S Lake Shore Dr	Kenwood	Retail - Small Grocery
Mama Ann's Corner	632 E 61st St	Woodlawn	Retail - Convenience
Family Food Mart	723 E 63rd St	Woodlawn	Retail - Convenience
Quality Super Food Inc	832 E 63rd St	Woodlawn	Retail - Grocery
Fresh Food Mart	600 E 67th St	Woodlawn	Retail - Small Grocery
MLB Food	613 E 67th St	Woodlawn	Retail - Convenience
HD Food	623 E 67th St	Woodlawn	Retail - Convenience
ER & J Food & Liquor	658 E 67th St	Woodlawn	Retail - Convenience
A & C Mini Mart	1344 E 67th St	Woodlawn	Retail - Convenience
67th One Stop Food & Liquor	1508 E 67th St	Woodlawn	Retail - Small Grocery
Cottage Grove Food Market	6307 S Cottage Grove Ave	Woodlawn	Retail - Grocery
64 Food Market	6456 S Cottage Grove Ave	Woodlawn	Retail - Convenience
Parkway Supermarket	6435 S King Dr	Woodlawn	Retail - Small Grocery
Amarr Foods	525 E Marquette Rd	Woodlawn	Retail - Convenience
Rana Foods	6700 S Rhodes Ave	Woodlawn	Retail - Convenience
Rosie's Food	6458 S Stony Island Ave	Woodlawn	Retail - Small Grocery
Super Sale	6319 S Vernon Ave	Woodlawn	Retail - Grocery
Red Apple Food & Liquor Inc	317 E 51st St	Washington Park	Retail - Convenience
Aziz Foods	241 E 58th St	Washington Park	Retail - Small Grocery
Mr G's Foods & Liquors Inc	332 E 58th St	Washington Park	Retail - Convenience
Sally Foods	201 E 61st St	Washington Park	Retail - Small Grocery
Phat Boy Food	376 E 61st St	Washington Park	Retail - Convenience
Finest Food Basket Inc	6100 S King Dr	Washington Park	Retail - Grocery
Noah Food Supermarket	5539 S Michigan Ave	Washington Park	Retail - Small Grocery
Mr Jacks	5901 S State St	Washington Park	Retail - Grocery
Saveway Food/Calumet Food & Liquor	313 E 43rd St	Grand Boulevard	Retail - Small Grocery
Kareem Foods & Dollar Store	100 E 47th St	Grand Boulevard	Retail - Convenience
Ariston Food & Liquors	315 E 47th St	Grand Boulevard	Retail - Grocery
Certified Food & Liquor	513 E 47th St	Grand Boulevard	Retail - Grocery
Sugars Plus Inc	525 E 47th St	Grand Boulevard	Retail - Convenience
Hyde Park Food And Liquors	111 E 51st St	Grand Boulevard	Retail - Convenience
Jamaica Food & Liquor Inc	4252 S Cottage Grove Ave	Grand Boulevard	Retail - Convenience
Jet Star Food	4858 S Cottage Grove Ave	Grand Boulevard	Retail - Small Grocery
Jamaican Marketplace	4655 S King Dr	Grand Boulevard	Retail - Small Grocery
Sunrise Supermarket	549 E Pershing Rd	Grand Boulevard	Retail - Grocery
Johns Corner Store	3425 E 106th St	East Side	Retail - Small Grocery
Super Leon	9800 S Avenue L	East Side	Retail - Small Grocery
La Flor Grocery Store	10500 S Avenue M	East Side	Retail - Small Grocery
Lillies Supermarket Inc	9863 S Ewing Ave	East Side	Retail - Small Grocery
El Tapatio Supermarket	10300 S Ewing Ave	East Side	Retail - Small Grocery
Victoria Produce Inc	10500 S Ewing Ave	East Side	Retail - Small Grocery
La Cienaga Food Inc	10736 S Ewing Ave	East Side	Retail - Grocery
7-Eleven Inc	10759 S Ewing Ave	East Side	Retail - Convenience

Table A-1. Names, addresses, Community Areas and categories for all food store locations included in the SSRM data.

Doing business as (current license)	License Start	Yrs (as of 2010)	10+	5+
Hyde Park Produce, Ltd	1/1/92	18	1	1
Bonne Sante Health Foods, Inc	3/1/94	16	1	1
Open Produce	5/15/08	2	0	0
Quick Snacks, Inc	4/20/98	12	1	1
University Market	8/11/89	21	1	1
Harper Foods	8/5/97	13	1	1
Village Foods	7/7/83	27	1	1
Del Prado Market, Inc	8/12/05	5	0	1
Ingleside Food Market, Inc	1/24/96	14	1	1
One Stop Food & Liquor Store	nl	nl	nl	nl
Market in the Park	2/1/03	7	0	1
Mama Ann's Corner	9/28/94	16	1	1
Lucky Corner Foods, Inc	8/25/99	11	1	1
Farmers Food Basket	3/25/97	13	1	1
Fresh Food Mart, Inc	8/18/98	12	1	1
MLB Food	1/16/08	2	0	0
H & D Grocery	12/11/00	10	1	1
ER & J Food and Liquor	5/13/91	19	1	1
A & C Minimart	6/2/87	23	1	1
67 th One Stop Food & Liquor	7/22/88	22	1	1
Cottage Grove Food Mart	5/16/00	10	1	1
64 Food Market, Inc	1/19/99	11	1	1
Parkway Super Market, Inc	7/15/97	13	1	1
Amar Foods	8/12/97	13	1	1
Rana Foods, South Chicago Food Market	11/20/07	3	0	0
Rosie's Foods	5/17/91	19	1	1
Fresh Buy Foods, Inc	12/20/90	20	1	1
Red Apple Food & Liquor, Inc	1/20/87	23	1	1
Aziz Foods	8/8/89	21	1	1
Mr G's Food & Liquor	10/8/81	29	1	1
Sally Food Mart	10/1/00	10	1	1
Phat Boy Foods, Inc	2/17/98	12	1	1
Finest Food Basket Inc	5/9/00	10	1	1
Noah Ark Food	1/5/01	9	0	1
Mr. Jack's Food and Liquor	10/28/87	23	1	1
Saveway Food	1/1/99	11	1	1
Kareem Mini-Mart	1/1/98	12	1	1
Aristo Food & Liquor	6/1/87	23	1	1
Ziad Certified Foods	1/11/85	25	1	1
Sugars Plus	6/27/90	20	1	1
Hyde Park Convenience	7/30/09	1	0	0
Jamaica Food & Liquor Inc	10/27/90	20	1	1
Jet Star Foods	7/3/97	13	1	1
Jamaican Marketplace Inc	4/18/03	7	0	1
Sunrise Supermarket	10/1/99	11	1	1
John's Corner Store	2/3/06	4	0	0
Super Leon	3/14/00	10	1	1
La Flor Grocery Store	1/1/92	18	1	1
Lily Supermarket	1/1/92	18	1	1

Supermercado El Tapatio	3/1/97	13	1	1
Victoria Produce Inc	9/22/97	13	1	1
La Cienega Super Food Inc	8/1/98	12	1	1
7-Eleven	12/11/92	18	1	1

	10 years	5 years
yes (has been food location x years)	43	47
no (has not been food location x years)	10	6
yes, percent of total locations	81.13207547	88.67924528
no, percent of total locations	18.86792453	11.32075472
total locations	52	52

Tables A-2, A-3. Business license information (Doing business as, retail food license start date, years as of 2010) and analysis of length of tenure of food purchasing establishments. (Source: City of Chicago BACP, http://www.cityofchicago.org/city/en/depts/bacp/provdrs/bus/svcs/business_licenselook-up.html)

Observation Form for South Side Corner Stores

<Store Name>

<Store Address>

Did this store carry fresh produce? Yes / No

If yes, what varieties? (Circle or write in, or note ‘fully stocked produce department’)

Fully Stocked Produce Department

Apples Bananas Pears Oranges Peaches Tomatoes Potatoes Carrots Onions Lettuce

How were produce items priced? Unit price / Price by weight

Did this store carry fresh foods other than produce (dairy, meat, eggs, etc.)?** Yes / No

If yes, what types?

Representative prices for produce/fresh food items, if available:

Apple _____ per lb / per bag / ea (circle)

Tomato(es) _____ per lb / ea

Orange _____ per lb / per bag / ea

Carrots _____ per lb / per bunch / bag / ea

Banana _____ per lb / per bunch / ea

Onion(s) _____ per lb / per bag / ea

Milk _____ per qt / gal / liter / other

Eggs _____ per dozen / other

Notes on this store (Impression, freshness/quality of food, other items available, etc.)

**Use ‘mostly unprocessed’ as a definition for ‘fresh’. Fluid milk, eggs in carton, block cheese, and raw or frozen cuts of meat are fresh; processed cheese products, sausages/hot dogs, and other packaged foods containing these ingredients are not.