

Space and Place in Business Intelligence: A Case Study of Starbucks Coffee Company in  
Central Ohio

THESIS

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By

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## Abstract

The role of *space* in the planning and development of retail networks has been evident throughout much of the 20<sup>th</sup> century during which a range of analytic models were developed to meet a variety of management objectives. The advancement of geographic information science (GIS) has greatly facilitated the frequency with which such models have been implemented by retail firms. Yet, critical economic geographers have taken notice of the engagement of GIS in a manner that is essentially spatially deterministic, awarding privilege to positivist approaches that had established dominance within the discipline of geography since the quantitative revolution of the 1960s, and scholars have contended that *place*, conceived as a relational approach to space, has a much greater role in the organization of the modern economy. Currently, however, a fundamental paradigm shift is occurring within GIS as a result of the proliferation of volunteered geographic information produced through location-based social media, enabled by Web 2.0 technologies, providing opportunities for the integration of georeferenced data within a GIS that enlightens the relevance of *place* in the economy without sacrificing attention to *space*. The poor performance and subsequent closure of over 700 Starbucks outlets in the U.S. since 2008 present a unique opportunity to study the implications of both *space* and *place* in the present economy. This research shows how a variety of methods may be used to understand the implications that each perspective suggests, concluding that the new wave of “big data” driven by location-based social media has the potential to mediate the polarization of *space* and *place* in the discipline of geography while presenting the opportunity to study spatial phenomena through GIS in a manner that is not spatially deterministic.

Key words: space, place, GIS, business intelligence, volunteered geographic information, social media, Starbucks Coffee Company

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## Fields of Study

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## Chapter 1: Introduction

The topic of retail location strategy has long been an area of considerable research within geography (Applebaum 1966; Goodchild 1984; Ghosh & McLafferty 1987; Graff & Ashton 1994; Birkin, Clarke & Clarke 2002; Thrall 2002; Lee & O’Kelly 2011) , and since the spatial revolution of the 1960s a host of various spatial analytical models have been developed and subsequently modified within the discipline to achieve a range of management objectives (see O’Kelly 2008). The advent of geographic information systems (GIS) has since facilitated the implementation of such models, encouraging the ease of utilization by a gamut of regional, national, and international retailers to plan and develop optimal real estate sites for store outlets. Through this process, what has been articulated as an optimal location is most often conceptualized from the perspective of “space” (Agnew 2011). For instance, as multi-outlet retailers have come to dominate the landscape through the advantage of achieving economies of scale, many such companies have become reliant on GIS and location models to ease the management and development of the location of hundreds or thousands of outlets in a manner that improves overall company performance by maximizing accessibility to target consumers, capturing a larger market share over competitors, while also identifying new locations for market opportunity and subsequent expansion.

With the proliferation of such large retailers, however, critics have begun to remark on the ensuing homogenization of the American landscape (Goss 1993). This has even provoked concern from within some companies, as evident by a leaked memo from Starbucks CEO Howard Schultz in which he expressed his concern that waning sales may be attributed to the watering down and commoditization of the brand (Schulz & Gordon 2010). While the checklist methods developed for ground level evaluations of potential retail sites (Applebaum 1966; Ghosh and McLafferty 1987; Thrall 2002) hint towards the integration of a place (or “patial”) perspective in the production of location intelligence, Jon Goss (1993) has been among the first critical human geographers to bring more explicit attention to importance of “place” in the modern economy through his ethnography of shopping mall landscapes. He recognizes how developers have capitalized on society’s collective nostalgia for unique and comfortable gathering spaces prior to auto-oriented development and the era of big box retailers, which have since produced a landscape that has become homogenous and impersonal. Goss (1993) suggests that mall developers have successfully exploited these sentiments to create spaces which engage consumers on a more personal level through the physical design while also manipulating elements of the shopping atmosphere to be more appealing to human senses, including anything from music, colors, to scents. The goal of the developer has been to transcend the perception of the mall as an exclusively retail environment in order to encourage consumers to spend more time within the mall doors, subsequently improving the potential for increased profits.

These elements of “retail atmospherics” clearly have been demonstrated to have clear implications in terms of consumer behavior and consequently store performance (e.g. Kumar and Karande 2000). As such, a retail location strategy which relies exclusively on the utilization of methods conducted from a spatial perspective, such as the spatial analytical models frequently implemented through GIS, is thus limited in its ability to offer a valid result in terms of what may be the most optimal location for a particular retail outlet. Furthermore, perceptions of the retailer’s brand personality and how that is situated with respect to the variety of consumer values, interests, and opinions in the market may also have critical implications in terms of retail performance (Aaker 1997; Aaker 1999). Yet, such a dynamic is challenging to analyze from a spatial perspective under conventional location models, since these sentiments are not transparent in the kind of demographic data which is typically collected and publically available for subsequent geographic analysis. While more recent market segmentation methods, such as ESRI’s Tapestry Segmentation, attempt to illustrate how various lifestyle categories are spatially organized, based upon a variety of consumer surveys, databases, and demographics, such methods nonetheless fall short of identifying the totality of consumers’ psychographic characteristics which may influence purchase behavior (Hoyer & MacInnis 2008).

As such, a robust understanding of the market forces which have implications in generating the location intelligence necessary to the planning and development of retail outlets must proceed from a multiple-methods process, not only including spatial analytical models but also qualitative methods which facilitate an understanding of the role of “place” as well as the manner in which highly personal consumer values incite

purchase decisions (e.g. Christopherson 2007). Until recently, such methods might include site observations and personal interviews with consumers within a projected trade area. However, the proliferation of geo-social media, such as Twitter and Foursquare, may be able to offer comparable insights, generating a source of “big data” replete with qualitative information, many times expressing sentiments towards a brand or the consumer’s perceived shopping experience, while simultaneously providing volunteered geographic information (VGI) on the trajectory of a consumer’s spatial coordinates over time.

The rapid growth the Starbucks Corporation from its inception in 1971 in Seattle’s Pike Place Market to its present position as an international retailer with almost 17,000 outlets worldwide suggests that this particular retailer has engaged in strategic location decisions which have only been met with resounding success (Starbucks.com). Yet, in 2008 the company surprised loyal consumers and critics alike when it made a decision amidst declining sales and plummeting stocks to cease operations at over 700 underperforming stores in the United States alone (Schulz & Gordon 2010). This scenario subsequently provides a unique opportunity to examine the implications of how “space” and “place” conspire to impact retail performance in the modern economy.

The objective of this study therefore shall be to contribute to existing theories and methods of developing retail location intelligence through a multiple methods process which examines the network of Starbucks outlet locations in the Columbus, Ohio Metropolitan Statistical Area (MSA), paying close attention to how dual dimensions of space and place have contributed to store performance as evident by the company’s

decision to either maintain or cease operating at individual outlets within the store network. Thus, while GIS will be utilized extensively to develop a spatial perspective which lends itself to producing location intelligence within the study area, complementary methods will also be implemented to develop a platial perspective from which a more comprehensive approach to implementing a location strategy may transpire. This approach stems from the following research question:

How may the Starbucks Corporation have developed a location strategy within the Columbus, OH MSA to optimize individual store performance? More specifically, this thesis aims to answer the following questions:

1. How may GIS be used to produce location intelligence to configure an optimal network configuration in the study area to facilitate accessibility to consumers, more specifically target consumer segments?
2. What knowledge is gained by complementing spatial analytical methods with qualitative methods oriented toward place? How does this data mediate what is suggested by the spatial perspective offered through analysis performed within GIS?
3. What are the resulting implications which arise from the accessibility to VGI produced through geo-social media?

Ultimately, by answering these questions, this thesis will cultivate a fresh perspective on the methods which produce meaningful location intelligence, demonstrating that a



retail location strategy must consider dual dimensions of space and place. The relevant knowledge garnered from examining this case through each perspective will be explained first along with existing limitations, while location-based social media will subsequently be discussed as a newly emerging source of big data which has the potential to inform both concepts of space and place and optimize operational efficiency. This potential will be examined through a case study of the Starbucks store network within the Columbus, Ohio MSA. The remaining chapters are organized as follows: Chapter 2 will examine space and place from a geographical perspective while situating the relevant geographic and marketing literature within this context. Chapter 3 will outline the primary data sources used along with the subsequent methods of analysis, leading to a case study of the Starbucks network within the Columbus, Ohio MSA of which the results will be discussed in Chapter 4. Finally, Chapter 5 will include a summary of the results and their implications along with some critical comments which may provide directions for future research.

## Chapter 2: Conceptual Framework and Literature Review

### *Space and Place: A Geographical Perspective*

The terms “space” and “place” are often used interchangeably in colloquial usage, despite the distinction that has been hotly debated within the discipline of geography, especially over more recent history. While there is contention surrounding their precise definitions along with the resulting geographic implications, a few generalizations may be drawn from reviewing the body of literature surrounding the debate. Agnew (2011) explains that within much geographic research, space is largely regarded as an abstract dimension or grid in which an object is located and contained. Conversely, place has come to be regarded as a more complex concept with special qualities attributed to personal experiences which have occurred and are subsequently associated with a particular space, and thus place may be understood as relational in nature. Relph (1976) suggests more succinctly that space provides the context for place, while Cresswell (2004) suggests that space, as a realm without meaning, may only become a place once humans have invested meaning in a portion of space and subsequently become attached to it in some way. This is consistent with Thrift’s (1999) understanding in which he discusses how the personal is passed through places in terms of what he refers to as human competences, including emotion and memory. Ettlinger (2009) goes further to distinguish place from the Cartesian concept of “location” as a concept referring to the totality of the history of social, economic, political, and cultural processes in a particular context, which itself may be spatially circumscribed by boundaries.

Ettlinger's approach takes cues from Doreen Massey (1994) who urges, particularly in regard to economic geography, for a reconceptualization of a "a progressive sense of place" which includes the many elements, such as ethnicity or gender, which are embedded within the economic and have clear implications in terms of consumer behavior. Yet, this conceptualization complicates notions of "place" as it fundamentally precludes the idea that a place may any longer have a single essential identity. Rather, Massey suggests place can be seen as an intersection of the constellation of relations that are articulated at a particular location and time. A place is therefore the result of the social relations, experiences, and understandings uniquely defined by the individual. Such places may be defined at multiple scales or may be conceived as entities which transcend any circumscribable area that is identifiable by geographic boundaries. The nature of Massey's supposition also precludes any conception of a place as static entity. Rather, as social interactions and experiences themselves are processes, places should be conceived as dynamic imaginaries that are produced and reproduced through interactions. As such, place may be understood as an imaginary that is produced and reproduced over the intersection of space and time.

Although there is no ostensible single agreed upon definition of place, the aforementioned conceptualizations all share the notion of place as steeped in human experience. Massey and Thrift (2003) thereby contend that place may ultimately be described as a fundamentally imagined space. Implicitly, places become imagined at a smaller geographical scale, as local and concrete phenomena of spatial specificity which are humanly meaningful, and are thus inextricably bound to a physical location. In other

words, space and place may be understood as mutually constituted. Knox (2011) cites how the processes and manners in which places are imagined often result in the designation of places as small scale areas, frequently physical locations such as neighborhoods, villages, towns and cities. At this scale, however, place transcends meaning as simply a thing or location to become a way of seeing, knowing, and understanding the world.

Since the quantitative revolution in the 1960s, however, Agnew (2011) describes how geography has given privilege to space over place through a focus on modeling interactions over geographic regions. The rise of GIS has largely been developed around the presumed dominance of space and has duly perpetuated an understanding of geographic phenomena as processes which are exclusively influenced by matters of Cartesian location. Yet, since the 1970's and 80's critical human geographers have revived an interest in notions of place, arguing in favor of the insights that the meanings of locations may offer in the development of geographic knowledge. Emerging literature which has abandoned arguments concerning which, space or place, is more important, towards a stance that views both as mutually constituted (Wainwright & Barnes 2009). Moreover, recent developments in VGI and social media have opened up the possibilities of GIS to be used in a manner which is consistent with this trend, and thus the perception of GIS as an exclusively spatial tool is changing (Sui & Goodchild 2011). This research hopes to continue to mediate this persistent polarization by utilizing a variety of methods which help to elucidate the knowledge gleaned from both attention to space and place under the contention that space and place cannot be fully comprehended without due

attention to the other, and both consequently have meaningful implications in regard to retail store performance.

## **2.1 Retail Location Intelligence through a Spatial Perspective**

The planning of outlet locations is arguably the most important decision a retailer has to make, and thus a well-designed location strategy is integral to the overall corporate strategy of a retail firm (Ghosh and McLafferty 1987). Location is the means through which goods and services are available to a potential market, and a good location will permit easy access to attract a maximum number of customers who may increase the potential sales of a retail outlet. In other words, the objective of store location analysis may be expressed as the process of matching demand and supply interrelationships over space. Since store location is a long-term fixed investment, the disadvantages of a poor location are difficult to overcome, and opening new store locations consequently comes with a significant risk should a store fail to be profitable due to inadequate location planning.

### **2.1.1 Trade Area Analysis**

Breheny (1988) explains that many retail companies simply relied upon intuitive judgment and experience alone to make locational decisions. Yet, due to the importance of the store location decision, a number of more rigorous analytical procedures have been developed to enable optimal site selection, many of which rely on forecasting sales and profits for potential outlets. Sales potential is understood as dependent upon a number of

factors, including quality and price of merchandise, characteristics of customers, physical characteristics, the level of competition, and the accessibility of competing stores.

Perhaps the most critical component to sales forecasting is defining the trade area, or the geographic area from which the outlet is likely to draw most of its customers, of a retail store (Ghosh and McLafferty 1987). Determining trade areas not only provides insights regarding the sales of an outlet, but it also useful for developing a profile of potential customers, determining spatial patterns of patronage, and may be utilized to assist in advertising and sale-promotion strategies.

Ghosh and McLafferty (1987) explain how there has been an evolution in various methodologies used to delineate trade areas, beginning with Reilly's (1931) gravity model and also including Appelbaum's (1966) customer spotting technique, giving way to later spatial-interaction models. The spatial interaction models, based on the work of David Huff (1964), used in the planning of retail store-location assume that the interaction between points at the retail site and customer origin is to a large degree contingent upon distance (Lee & O'Kelly 2011). Hence, as the origin of potential consumers increases in distance from a particular retail facility, it is presumed that the likelihood of individuals to patronize a facility will decrease, otherwise known as the distance decay effect. However, when the characteristics of stores providing the same kinds of goods and services vary, consumers are likely to bypass the closest facility if the extra cost of travel is compensated by a selection of better goods, a wider selection, or better brand image, and thus spatial interaction models allow for the implementation of a

measure indicating variation in attractiveness, utilizing indicators such as total sales or total square footage of retail floor space in individual outlets (Lee & O’Kelly 2011).

Yet, another consideration in defining trade areas is the manner in which the proximity to other shopping opportunities may impact the perceived attractiveness of a particular outlet due to the ease with which such agglomeration facilitates multipurpose and comparison shopping (Ghosh and McLafferty 1987). Hence, the results of spatial interaction models are inherently imprecise since they are reliant upon quantifiable measures of attractiveness and don’t necessarily reflect a correlation with the degree of attractiveness from the consumer’s perspective. Despite this shortcoming, outlets of national and multinational retail firms tend to be of a similar size and retrofitted with the same designs and assortment of goods. Thus, it is most likely that any variation in attractiveness as implemented through spatial interaction modeling is negligible. In such cases, it is probable that distance may be utilized to determine relative attractiveness and consumers will subsequently patronize the facility which is located closest to the origin of the consumer.

### ***2.1.2 Location-Allocation Modeling***

In cases in which firms desire to evaluate the impact of individual retail outlets in an entire network of stores in a market area, Ghosh and McLafferty (1987) explain that an implementation of a location-allocation model would be more appropriate than relying on spatial interaction models alone. Thus, it should not be surprising that in more recent years, with the aid of GIS, location-allocation models have grown to become a preferred method in providing an efficient, powerful technique in the development of location

strategies which simultaneously determine optimal locations and allocation of customers to an outlet in order to provide a basis for the forecasting of sales. As such, they are ideally suited for the development of spatial strategies for large retail chains that may be operating several outlets in a single market area simultaneously, since the coordination of a location in the network will have likely impacts on other outlets and subsequent implications to total network profitability (Ghosh and McLafferty 1987; O’Kelly 2008).

The motivation to operate a network of retail outlets and achieve a strong market presence has benefits to firms in terms of achieving economies in advertising, distribution, and labor while also increasing the potential for sales and profits by covering a wider geographic area. Conventional models of site selection are not necessarily well suited to this purpose since they are limited to analyzing single-store locations, which ignore the impact that an individual store might have on other outlets in the market area operated by the same firm. There have subsequently been several approaches developed to aid in selecting multiple sites and organizing the spatial network of outlets in an area, most of which may be classified as one of several location-allocation models. These models include two elements: the best locations for retail outlets based upon a stated objective, and the allocation of consumer to those outlets based upon the expected pattern of consumer travel (Ghosh and McLafferty 1987). In other words, “location-allocation is the simultaneous location of central facilities, and the allocation of dispersed demand to them, so as to optimize some objective function” with the overall goal of designing a network of outlets to serve a dispersed population (Goodchild 1984).



As in other models for site selection, location-allocation models are based upon the assumption that individuals bear the cost of travel and hence have important effects on consumer shopping decisions. Such models thereby provide a method that permits evaluating network configurations to determine sites in terms of which will be the most accessible to consumers, requiring the least distance consumers must travel to visit an outlet (Ghosh and McLafferty 1987). The allocations thus become the trade areas of each outlet and are used to forecast sales and profits. Moreover, not only may these models be used to design a network of retail outlets in an unserved market, they may also be useful to analyzing the benefits of adding new stores to existing networks or in deciding how to relocate or close existing stores (Ghosh and McLafferty 1987).

Location-allocation models may reveal crucial insight regarding the number of outlets a firm is to operate in a certain market area, a critical component of any location strategy. Ideally, a firm would desire to locate a large number of outlets in order to reduce the distance consumers must travel to patronize those outlets. However, a firm must trade off the likely revenue generated by increasing the number of outlets with the cost of establishing and maintaining those outlets (Ghosh and McLafferty 1987). Thus, in choosing the optimal number of stores to operate within a market, the increased revenue from additional outlets must be balanced against the increased costs of facility construction and operation.

Location-allocation models have five basic components. The first, the objective function, states the objective to be optimized in selection store location, and is usually a measure of accessibility. The second consideration is the demand points, represented as

the centers of zones containing a certain level of demand for the goods provided. Typically units such as census tracts, zip codes, or census block groups may be used as the zones from which demand points originate. Next, a set of feasible sites must be determined that meet certain minimal requirements concerning land, access, and infrastructure for the location of new stores. However, certain applications, referred to as “planar models” assume that any point in the area is feasible and consequently omit the necessary identification of feasible sites. Another component of location-allocation models consists of a distance or time matrix illustrating the distance or time traveled to each demand point to the feasible site locations. This utilizes the shortest distance between points if using network distance, or may more simply be calculated using Euclidean distances. The final component is the allocation rule specifying the manner in which consumers are expected to choose among the different outlets in the area. The pattern of allocation represents the trade areas of the outlets and may be used in forecasting sales and market share of each outlet (Goodchild 1984; Ghosh and MacLafferty 1987).

Trade areas may be defined using a variety of allocation rules and depend upon the objective function, which will ultimately determine which location-allocation model is used in the implementation. A wide number of implementations of location-allocation models are based upon a proximal area method in which geographic areas, otherwise known as Thiessen polygons, representing the outlets’ trade areas are drawn to define the area that is closer to each store than any other neighboring store. The assumption is that when consumers from the demand points are faced with making a choice among similar

outlets, they will select the one that lies within the same Thiessen polygon (Ghosh and McLafferty 1987).

Although the method of defining trade areas by proximal areas is useful for forecasting sales of retail categories which sell undifferentiated products and hence geographic accessibility ostensibly becomes the primary determinant of store choice, such as in the case of convenience stores, branch banks, or drug stores, there are additional lower-order product categories for which consumers simply may not choose to acquire if the outlets in which such products are sold are beyond a certain threshold distance. Lee & O'Kelly (2011) remind that this notion is a central tenet of central place theory, which conceives of products as existing in a hierarchy of goods ranging from frequently purchased inexpensive goods to high-end expensive goods. In theory, there is a higher spatial frequency of demand and provision of lower-order goods while there is a corresponding scarcity on the landscape of higher-order goods. Thus, although consumers may have to travel further to acquire higher-order goods, they are typically representative of product categories for which consumers have a willingness and motivation to travel a greater distance. In other words, the benefits of product acquisition outweigh the cost of travel. Alternatively, in the case of an inexpensive lower-order good such as fast-food, it should not be surprising that 85 percent of the revenue of a typical fast food restaurant is generated from consumers residing within a three-mile radius (Ghosh and McLafferty 1987).

Central place theory would consequently suggest that consumers of fast food restaurants and similar businesses providing lower-order goods may actually substitute

products and services or even completely forgo consumption if the outlets are not easily accessible to them. Thus, the trade area in these circumstances is derived from the population that is located within the immediate neighborhood of such outlets. Lee & O’Kelly (2011) therefore emphasize the importance in retail management for a firm to understand the range, or maximum distance a consumer is willing to travel to acquire, of a particular good or service. The consequent objective in designing a network of outlets providing such goods and services should be to find locations that maximize the number of people within a specified maximum distance or travel time constraint. This type of location-allocation model is otherwise known as the covering model.

The assumption underlying all covering models is that the accessibility to a network of facilities within a defined travel distance or time is an essential determinant of service utilization. Consumers residing beyond the specified maximum distance or travel time from an outlet are assumed to be not adequately served and therefore unlikely to purchase from or utilize the services offered by the facility. Thus, in designing the network, the overall objective of the firm should be to maximize the proportion of the population within the specified distance from facilities and thereby maximize the level of service provided. There are several different approaches which may be used to achieve this objective, dependent upon the broader goals and value proposition of the company.

The set-covering model is one example which is used to determine the number of outlets required by a firm along with their precise locations in order to ensure that all consumers in a market area have access to at least one outlet within a specified travel time or distance (Ghosh and McLafferty 1987). However, in many retail settings, the goal

of providing universal service may simply not be feasible given the cost of construction and operation of the facilities. Thus, it becomes necessary to trade off the cost of locating additional outlets with the potential revenue generated from increased coverage. In these instances, a maximal-covering location (MCL) model is more reasonable in order to determine the locations that will maximize the proportion of demand covered by a limited number of outlets. The expected level of utilization is constant as long as the distance from the nearest outlet is less than the critical distance or time threshold defining the trade area, and beyond this limit the rate of utilization is assumed to be zero.

The MCL model is a useful implementation in many market areas where there is a concentration of demand in a few small areas, and thus a relatively large proportion of the demand can be covered by just a few outlets located in areas of high density. Once areas with a high concentration of demand have been adequately served, increased coverage can only come from locating outlets in areas that contain little demand or in areas that will potentially cannibalize patronage at existing outlets. The marginal increase in coverage thus decreases significantly as the number of outlets increases (Ghosh and McLafferty 1987). As such, the benefit of any potential revenues from these additional outlets may ultimately fail to justify the costs of construction and maintenance.

Although their utility in network planning is evident, location-allocation models are not without problems, and some of their inherent limitations should be recognized prior to the execution of a location strategy. An area of major concern is associated with defining a trade area based solely upon distance and driving time. Such assumptions fail to elucidate the complexity of consumer choice and the contingencies which affect

consumer behavior, including personal tastes, past experiences, and brand loyalty, which may ultimately overshadow the role of distance in purchase decisions. O’Kelly (2009) explains that distance is merely one attribute of spatial choice, and empirical observation has confirmed that people often patronize a facility other than the nearest. Moreover, models rely on the fixed location of individuals, based upon their residence, and consequently fail to acknowledge the variability in individual activity over space and time which potentially creates fluctuations in distances between consumers and different retail outlets. For example, a consumer’s residence might in fact be located in closest proximity to a particular retail outlet offering a certain good, yet a multi-purpose shopping trip might facilitate a consumer’s patronage at a an outlet which is ostensibly less convenient in terms of distance or time from his residence as indicated by a demand point under location-allocation modeling. Much of Kwan’s research (i.e. 1999; 2000; 2004) has sought to address this dynamism of individual movement in space, regarding it as a complex trajectory with intersecting dimensions of time, activity sequencing, and location. Developing a better understanding of time-space constraints on individual activity patterns has the potential to better illuminate the accessibility of consumers to retail outlets, though the ability to collect and analyze this kind of detailed individual-level data remains limited at this point, especially for major retailers operating store networks at the national or international scale. Consequently, location-allocation models continue to be utilized due to the ease and speed at which they may be implemented.

### ***2.1.3 Market Segmentation***

Because consumers vary in their needs, driven by factors such as socioeconomic status, age, education, or lifestyle, firms may segment the market based upon different customer expectations. Thus, while accessibility in terms of proximity to the highest population densities might be enough for the location-allocation of certain offerings, most successful retail chains also study a massive amount of geo-demographic data, which enables a rich portrait of consumer behavior to inform the market planning of their operations (O’Kelly 2009). In other words, even though stores may provide similar offerings, location strategies may be mediated by and vary according to the market segments containing those consumers which a firm attempts to target. Potential market segments may be identified from developing an understanding of the retailer’s value platform which specifies the manner in which the firm differentiates itself from its competitors in the minds of the consumers it intends to serve. The value platform becomes the foundation of the retailer’s marketing strategy which should allow the firm to achieve a differential advantage over its competitors in the same product category. The functional policies followed by the firm, not limited to location but also including pricing, advertising, store atmosphere, and service, should all be consistent with this value platform (Ghosh and McLafferty 1987).

Wal-Mart may be cited as an example in which the firm’s value platform has largely influenced its location strategy. The discount chain has succeeded in generating one of the highest levels of profits per square foot among discount store operators by creating a value platform that serves the needs of low- and middle-income families in rural areas

and small towns. Its location policy has thus been to focus on sites in rural areas and small towns for the majority of the company's history. Over time, however, we have seen Wal-Mart appear in more suburban areas outside major urban centers, perhaps representing a change in their value platform in order to target consumers with a different value orientation. This reflects the dynamic nature of the market, and competitive structures must change in response to the threat of new competitors or other changing market conditions, such as changing styles or social structures (Graff & Ashton 1994).

#### *Geodemographic Segmentation*

Geodemographics has subsequently emerged as a common method of developing and applying area typologies that may be useful in predicting consumer behavior based upon the different characteristics and needs of consumers (Birkin 1995). In other words, it is not just the quantity of consumers that make up a trade area which ought to be of relevance, but retailers also must take into consideration the affinity of those consumers with the store in terms of their shopping needs and habits, both of which are key to producing a profitable level of sales (Gonzalez-Benito & Gonzalez-Benito 2005). As such, geodemographic segmentation attempts to capture the spatial heterogeneity of the market by classifying small scale intra-urban areas or neighborhoods in terms of the characteristics of their residents. This concept of geographically differentiated markets, argues Birkin et al. (1996), is thus a fundamental component towards an emerging retail location strategy. By engaging in location strategies which integrate geodemographic segmentation, firms are able to more efficiently select those residential areas whose shopping needs and habits match the positioning and value platform of the retail brand.



Under these methods, consumers are classified by the type of residential area in which they live based upon demographic or socio-economic characteristics of their residents. Two major assumptions underlying the use of geodemographic segmentation should be noted. First is the idea that residential areas have similar shopping needs and habits and consequently similar response patterns to marketing stimuli. Secondly, there is the assumption that individuals with similar characteristics will tend to reside in the same areas, producing internally homogenous residential areas (Gonzalez-Benito and Gonzalez Benito 2005). Government census data comprises a large portion of these small area profiles, although some include further information obtained through supplemental data sources, which then become available through classification systems such as the UK's ACORN or MOSAIC (Birkin 1995). While there may be limitations with this data arising from problems associated with the often debated modifiable areal unit problem (MAUP), the strength in using such geodemographic classifications is in providing retail firms with the capacity to look beyond planned market penetration based upon quantity and density of consumers to include a consideration of the quality and characteristics of consumers as well. Consequently, Gonzalez-Benito & Gonzalez Benito (2005) contend that an awareness of the differentiation of retail stores and brands in terms of market segmentation is vital to the success of retailers in today's competitive environment.

ESRI has facilitated the use of geodemographic data within ArcGIS through the development of ESRI Business Analyst Desktop which includes a variety of demographic and socio-economic data at the census tract level. This system of segmentation which has been developed by ESRI is known as Tapestry Segmentation and classifies

neighborhoods as one of 65 distinct market segments, derived from various combinations of 12 LifeMode Summary Groups based upon or lifestyle and lifestage composition along with 11 Urbanization Summary Groups based upon geographic and physical features, such as population density and proximity to a metropolitan area. These various customer segments are produced using cluster analysis based upon a large number of variables that are likely to differentiate consumer spending and preferences. Data sources include Census 2000 data, Esri's Updated Demographics, Acxiom Corporation's InfoBase-X consumer database, and consumer surveys, such as the Survey of the American Consumer from GfK MRI, to capture the subtlety and vibrancy of the US marketplace (Esri.com).

#### *Value Segmentation*

However, it may not always be accurate to assume that consumers who share similar demographic characteristics are similarly motivated to purchase the same products and patronize the same retail businesses (Wells 1975). Rather, consumers buy, use, and dispose of products in a manner consistent with values that may not necessarily be apparent through demographic variables. There is an advantage to understanding consumer values because they are more stable than attitudes. Values are actually a determinant of attitudes and behaviors and can thereby provide a more stable and deeper understanding of consumer behavior (Kamakura & Novak 1992). Hoyer & MacInnis (2008) explain values as those enduring beliefs regarding what is right or wrong which guide behavior across situations and over time. Rokeach (1973) explains that once a value is learned, it becomes a part of a value system which becomes an important tool for

conflict resolution and decision making. Yet, conflicts often activate more than one value, and the value system must manage to resolve the conflict in a manner that maintains or enhances self-esteem. Accordingly, the value system must be studied as a whole to provide an understanding of the motivations which drive an individual's behavior.

How value systems are conceptualized and assessed has been a topic of debate within consumer research, including Rokeach's Value Survey (RVS) (1973) which consists of 18 terminal values (ideal end states) that are achieved through 18 instrumental states (modes of behavior), Kahle's (1983) list of values (LOV) as an abbreviated measurement including only nine terminal values, as well as Schwartz & Bilsky's (1987) conceptualization of human values in terms of seven motivational domains (Kamakura & Novak 1992). Values may be identified by having consumers rank each in terms of personal importance, though an alternative method that may be used to glean an assessment of consumer values is through a means-end chain analysis (Valette-Florence & Rapacchi 1991). This psychological perspective, which is based on Means-End Theory, focuses on the linkages between the attributes that exist in products, or the means, the perceived consequences provided by those attributes, and the personal values, or the ends, those consequences reinforce. The premise is therefore that consumers learn to choose products containing attributes which are instrumental to achieving a desired consequence which is important because of personal values (Reynolds & Gutman 1988). As such, means-end chain analysis, or laddering, is a technique in which researchers may work backwards to understand how values are linked to attributes in products, services

and brands. Consumers identify product, service or brand attributes that are important to them and explain the benefits of those attributes. Respondents often identify functional or physiological benefits initially, but through a process of value laddering the researcher may uncover how particular attributes provide the means to some other terminal value, or a highly desired end state such as social recognition or pleasure. Because it is unlikely that any product or brand can be segmented on the basis of value systems alone, as decisions often become mediated by product attributes, benefits and consumer preferences, Kamakura & Novak (1992) suggest that means-end chains offer an approach that effectively integrate such influences within the context of a consumer's value system. As such, although the importance of a product is frequently first discussed in terms of a functional attribute which may then serve some more instrumental value, one which is needed to achieve a desired end state, the laddering process involved in means-end chain analysis allows the researcher to uncover the terminal values which are the fundamental motivators of consumption behavior.

In the same manner of identifying segments of the population with shared characteristics as in geodemographics, marketers may also identify and target groups of consumers who have a common and distinct set of values through a process called value segmentation. Reynolds & Gutman (1988) explain that these kinds of segmentation schemes are intended to classify respondents with respect to some aspect of their behavior, attitudes, or dispositions in a different way that helps marketers understand them as consumers. Kamakura & Novak (1992) explain that value systems may be used to define enduring subcultures across social and demographic groups. Vinson, Scott &

Lamont (1977) thereby contend that value orientations provide an added variable which has the potential to expand market intelligence through the identification of market segments based upon value systems, subsequently providing a means of identifying market opportunity or the need to reposition products. The kind of in-depth information gleaned through laddering to understand personal motivations and values creates opportunities for brands to differentiate themselves by communicating how it delivers consequences, thereby making it personally relevant (Reynolds & Gutman 1988). Thus, marketers may consequently use values to understand the attributes that consumers in a particular subculture may find important and ultimately motivate them to choose one retail brand over another.

Yet, Hoyer & MacInnis (2008) admit that segmenting the market by values often requires more effort and is more time intensive since values are often difficult to identify and measure. One reason for this is that consumers tend to find difficulty articulating what is really important to them. In other cases, consumers may feel social pressure to respond to value questionnaires in a certain way in order to look better. Still, understanding the connections revealed through a means-end chain analysis is valuable in providing the ability for marketers to identify product and brand attributes that will be resonate with certain values.

This values related research in marketing is a part of psychographics, a description of consumers based upon their psychological and behavioral characteristics. Although there is no universally accepted definition, all psychographic researchers have attempted to move beyond demographics into added dimensions including activities, interests,

opinions, needs, values, attitudes and personality (Wells 1975). Although demographic variables like ethnicity, social class, age, gender or religion may tell us much about who is consuming a product, service or brand, marketers use psychographics to gain a more detailed understanding of consumer behavior to understand precisely why individuals and market segments may be motivated to engage in particular consumption behaviors (Hoyer & MacInnis 2008). Wells (1975) explains that developing psychographic profiles not only allows for new information to become available about consumers' behaviors, but it also prevents marketers from making false assumptions which may be suggested through demographic profiles alone. For retailers, possessing an understanding of the target market's psychographic traits therefore has serious implications in terms of location planning by providing insights that are not apparent through conventional GIS data sources.

## **2.2 Retail Location Intelligence through a Platial Perspective**

### ***2.2.1 Place in the Modern Economy***

Even though segmenting markets based upon either demographics or psychographics may generate a more accurate representation of which neighborhoods should be targeted for a particular offering, what is most lacking under methods based upon this kind of areal analysis is arguably attention to “place” which may play a large role in determining patterns of consumer activity. Thrift (2000) explains how this shortcoming has been an extant dilemma within economic geographic research, as the subdiscipline has

conventionally imposed boundaries on what may be conceptualized as “the economic” with an overwhelmingly exclusive focus on the actions of capital and “socially disembedded relationships of exchange” (Scott 2004). However, critical human geographers have incited somewhat of a cultural turn within economic geography over the most recent decades, contributing to the slow dissolution of the boundaries which have, until recently, precluded an understanding of economic matters in the context of other societal and cultural factors.

Much of these critiques have emerged through a proliferation of research publications on consumption behavior. Neo-classical economics assumes that consumers are rational utility-maximizing actors choosing between preferences with perfect information (Thrift 2000; Scott 2004). However, this perception has been contested by an increasing number of researchers across the social sciences who present the notion that consumers are actually a highly diverse set of actors who react in grounded and contextual ways, and their subsequent consumption behaviors are therefore heterogeneous and indicative of context. Ettlinger (2004) explains that that “context” refers to the set of thoughts, feelings, behaviors, social interactions, institutions, and structures in a place. In other words, consumers may be conceptualized as actors who respond to place-specific factors in which a cultural milieu prompts certain behaviors. As such, a large body of the emerging literature stresses the cultural and social “embeddedness” of economic activity, and particularly consumption (i.e. Zukin 1999; Christopherson 2007).

The implications of place for a retailer in the economy at the regional scale are explored by Christopherson (2007) in her account of Wal-Mart’s attempt to expand into

Germany. The retailer's international expansion was initiated using the same strategies that had allowed it to dominate the U.S. market, planning to dominate supply chains and negotiate low prices in order to drive up profits even with low margins. However, the retailer faced serious obstacles in entering the German market. For instance, German land-use regulations were unfavorable to "big box" store development. German retailing, rather, is typically carried out in small neighborhood stores. As such, the Wal-Mart model was already largely at odds with consumer shopping habits.

Moreover, Wal-Mart failed to dominate the retail distribution system and its suppliers in Germany, where wholesalers have continued to act as intermediaries and thus created problems for the retail giant, who typically bypassed dealing with intermediaries to effectively cut costs. Yet, because Wal-Mart lacked the market power to alter the existing distribution system, the company had to take on the extra costs associated with wholesaling and inventory that they were able to avoid in the U.S. To further complicate Wal-Mart's efforts to cut costs, German food retailing is traditionally very competitive, and consumers typically engage in price averaging, preferring to shop at hard discounters, like Aldi, located in many urban neighborhoods while purchasing some goods from a range of competitive higher-priced retailers also located in close proximity to their urban residences. By contrast, the Wal-Mart model of "everyday low prices" and one-stop shopping was only accessible by traveling several miles out of the urban core and was subsequently not very attractive to the average German consumer, who would typically visit food retailers on their way home from work or as they made a multiple-stop shopping tour to several retailers within their neighborhood. Thus, a failure to account for



different social norms that exist within a different context imposed serious problems for the retailer who failed to recognize the site-specific factors which have critical implications in the spatiality of the German economy and particularly its consumers.

Goss (1993) explores the implications of place in consumption patterns at a much smaller scale through a reading of the form, function and meaning of the landscape of modern shopping malls. He notes how an increasingly competitive retail market has led developers and firms to exploit a modernist nostalgia for authenticity in constructing attractive places in order to maximize foot traffic. Goss argues that the producers of malls have taken an active role in manipulating how place is understood by mall patrons through the design of the built environment, which is intended to evoke idealized experiences of other places. He contends that this thereby creates an illusion of a world standing outside of everyday life in order to assuage any sense of guilt in regard to conspicuous consumption as a means to maximize profits for mall tenants. As such, the pleasure, fantasy, and magic promoted in the landscape through the architecture, interior design and themes along with the staging of events and services to facilitate consumption, smells, sounds and music help to create a “liminal” space in which the link between shopping and purchase is obfuscated and the individual is free from censure.

From Goss’s reading of the consumer landscape, profit is consequently heavily reliant upon image making and creative management in order to create a sense of place, not simply identifying optimal real estate for the planned construction and operation of a retail facility. This suggests that what is implied by an “optimal” site may have implications beyond finding an accessible Cartesian location to also include a

consideration of the production of place in order to provide a more robust analysis regarding the performance of a retail outlet in terms of its ability to generate profits. This is consistent with Breheny's (1988) contention, in discussing the use of geodemographic data in a GIS, that location decision processes must extend beyond determining the viability of an outlet through trade area analysis to include a consideration of micro-site and in-store factors.

### *2.2.2 Retail Atmospherics*

What Goss seems to suggest is that the progressive sense of place discussed by Massey (1993) as an individualistic constellation of relations may be successfully managed by retailers to incite a uniform emotional response which will ultimately influence consumer behavior. These functional elements which conspire to evoke emotional responses and subsequently create the relations which become embedded as a conception of place have been discussed by marketers as "retail atmospherics". Retail atmospherics can be described as those factors which encompass both the situation of the retail location with respect to the external surrounding environment in addition to the internal characteristics of the site. It is believed that these tangible characteristics or functional qualities of the retail environment create affective responses which in turn result in approach or avoidance behaviors (Darden & Babin 1994). Kumar and Karande (2000, 168) explain, "atmospherics are often designed to create a buying environment that produces specific emotional effects that will enhance a consumer's likelihood of purchase." Darden & Babin (1994) explain that a large body of research indicates merchandise assortments and quality, employee characteristics, physical facilities,

promotions, and density as some of the more salient determinants in developing a store's atmosphere. Retail atmospherics are used to create differences across stores in order to "exploit consumer characteristics and the competitive environment" (Kumar and Karande 2000, 167). Through an examination of various grocery retailers, they have found that the increasingly competitive environment requires a consideration of different atmospheric variables, such as level of service and external retail environment, in addition to trade area analysis, geodemographics, and level of competition in order to improve store performance.

Again, this suggests that perceptions of place at retail sites may be effectively managed to produce the desired behavioral responses by consumers. This notion has critical implications in the development of a location strategy for retailers, suggesting that firms must also afford sufficient attention, beyond mere locational accessibility to the appropriate market segments, to how micro-level functional characteristics of retail environments produce affective responses which accordingly influence purchase probability. In other words, retail managers ought to consider those functional characteristics which may conspire to evoke the emotional responses that ultimately create place perceptions in order to optimize store performance.

A common approach to assess these factors has been to develop a checklist to ensure that all relevant conditions are evaluated. Even though some of the data elements may be quite subjective, this process nevertheless allows for a standardization and comparison of information across potential sites. Ghosh and McLafferty (1987, 49) offer an example of one such checklist, including a consideration of location in relation to the existing retail

structure, accessibility and traffic flow, as well as physical site characteristics. Matters of relative location include the number of competitors in the area, the variety of stores in the area, the complementarity of neighboring stores, as well as proximity to other commercial areas. Accessibility is assessed in terms of both vehicular and pedestrian traffic flows, regarding number counts and characteristics of each, as well as the proximity to mass transit lines, levels of congestion, and overall quality of access for both drivers and pedestrians alike. Physical site characteristics are examined in regard to the availability of parking, condition of the structure, visibility from the street, and size of the parcel.

The checklist developed by Ghosh and McLafferty refers exclusively to the situation of a retail outlet, similar to the checklist developed by Thrall (2002) which is intended to identify what he refers to as “situation targets” based upon the demographics of the trade area, inventory of nearby businesses, and characteristics of the built environment. These situational characteristics undoubtedly have an impact on the store experience and ultimately create the relations that formulate place perceptions, but there has been less rigor in developing a methodology within geographic research to evaluate the internal functional site elements that are encompassed within the spectrum of retail atmospherics. This may be in part due to the highly subjective nature of interpreting the affective responses produced by smells, sounds, lighting, level of customer service, cleanliness, arrangement of goods, customer density, etc. that are all components of a store’s atmosphere but nonetheless have critical implications from the perspective of place.

### *Brand Personality*

The functional characteristics of a retail atmosphere may also be elements which are critical to building broader perceptions of the retail or brand personality, especially in the case of multi-outlet retailers. Particularly in regard to low-motivation product categories, exemplified by those products which may be consumed by a wide number of consumers and purchased on a routine daily basis, retailers seek to differentiate their product offerings by adding another dimension through branding. This trend has significance as many consumers use products as a way to define themselves to others and actively seek to purchase brands with a particular personality in order to express their self-concept (Malär et al 2011). Thus, the concept of brand personality and how this is situated in regard to the psychographic characteristics of various market segments is a vital factor of consideration in the process of planning the location of retail outlets.

Brand personality may be defined as the set of human characteristics associated with a brand (Aaker 1997). This is, in part, created by consumers themselves who may imbue particular brands with human personality traits, thinking of brands as celebrities, historical figures, or as they relate the brand to their own selves. Many times these personality traits are transferred directly to the brand from the people associated with the brand, including the typical users of the brand, the company's employees and CEO, and the brand's endorsers. However, personality traits also come to be associated in an indirect way through product-related attributes and category associations such as brand name, logo, packaging, advertising style, price, and distribution channel. Moreover, research indicates that brand personality includes demographic characteristics, such as

age, gender, and class, which are inferred from distinct user imagery in the same manner as personality traits (Aaker 1997). The brand personality becomes important from geographic perspective as Darden & Babin (1994) suggest that the functional elements of the outlet atmosphere in which a brand's products are distributed also plays a large role in the consumer's perception of the broader retail or brand personality.

Meanwhile, advertisers also imbue brands with personality traits that are relatively enduring and distinct. For instance, the personality associated with Coca-Cola is described as cool, all-American, and real, and helps to differentiate Coke from its competitors (e.g., Pepsi as young, exciting, and hip). As such, the personality of a brand enables a consumer to express his or her own actual self, an ideal self, or a specific dimension of the self. Research has generally agreed that the greater the congruity between the human characteristics that consistently describe an individual's actual or ideal self and those that describe the brand, the greater the preference for that brand (Aaker 1997; Aaker 1999). However, Aaker (1997) has extended this to suggest that consumers typically think of specific dimensions of their personality, as opposed to the self-concept construct which refers to the total set of beliefs about and attitudes toward the self, in relation to one of five salient brand personality dimensions including sincerity, excitement, competence, sophistication, and ruggedness in the decision making process.

Developing brand personality and maintaining an awareness of the market segment(s) with which it resonates is a key factor in achieving brand loyalty. Brand loyalty occurs once a consumer has made a conscious evaluation that a brand or service satisfies their needs to a greater extent than others do and decide to buy the same brand repeatedly for

that reason (Hoyer & MacInnis 2008). Developing brand loyalty is an important strategy especially for product brands which may be described as low-effort purchases, or those products which are offerings representative of everyday repeat consumer decisions. Thus, brand loyalty becomes a simplifying strategy for consumers considering where to purchase a product. For example, even though coffee may be a relatively low-involvement product category, a consumer may have a strong commitment to the brand and thus a relatively high level of involvement with the brand (Hoyer & MacInnis 2008). Malär et. al (2011) explain that this high level of involvement, in other words the degree to which an offering is perceived to be personally relevant, may emerge through a strong emotional connection with the brand that has been formed through matching the brand's personality with the consumer's self-concept. As such, the degree of attachment depends on the degree to which consumers view the brand as being a part of themselves and reflecting who they are. Yet, the brand personality that reflects a consumer's ideal self may have the same level of attachment if it is perceived to be representative of their self-enhancement activities which give them the feelings of getting closer to their aspirations. Either way, it has been suggested by Lindstrom (2008, 27) that the brand which engages us emotionally "will win every single time" and otherwise be consistently chosen in the consumer decision making process because of the manner in which emotions are encoded in memory and subsequently inspire behavior which is not necessarily rational.

Lindstrom's suggestion may have significant implications regarding how a retail brand plans the location of individual store outlets. If brand loyalty created through a congruency between self perceptions and brand personality has already been achieved in

the market and presumably conditions consumers to behave in a manner which is not necessarily rational, then questions arise concerning the threshold at which a consumer's motivation to purchase a particular brand are outweighed by the costs associated with travel and general accessibility of the outlet. This may be dependent upon a variety of factors such as brand awareness among regions as well as the particular product category in question, and thus a firm's location strategy must be highly nuanced with regard to the way in which its products are perceived by consumers. However, a scenario which seeks to minimize risk would reasonably locate a retail brand outlet in a manner to maximize the accessibility to those market segments which share aspects of their self-construct that correlate to perceived brand personality. As such, an awareness of how place building strategies may play a role in perceptions of a brand personality is essential to the development of a comprehensive and strategic location strategy.

### **2.3 Developing Retail Location Intelligence through GIS**

The previous discussion of "place" is not to deny that securing prime real estate from a locational perspective has significant implications in the viability of individual retail outlets. The advent of GIS has facilitated a number of firms to plan and develop retail outlets more efficiently by identifying target markets and enhancing the accessibility of goods to those consumers. Arby's is an example of one such retailer, which uses drive-times to establish the likely trade area for a new store to forecast sales while also ensuring a new location will not cannibalize or take customers from an existing outlet (Sherwood 1995). Levi Strauss & Company (LS&Co.) has also begun using GIS to customize the



product mix or combination of products available in specific stores. This is just one micromarketing strategy which has allowed the company to boost sales performance by paying much closer attention to the products and marketing at a finer geographical scale. By geographically analyzing the demographics within a specific department store's area, the company can begin to make assumptions about the kinds of products that would be appropriate for that store. This might result in offering their Dockers products to a slightly older and more affluent population versus supplying Levi's jeans to a younger crowd, or it might have such marketing implications as illustrated through the use of Spanish-language billboards in a Los Angeles neighborhood that is primarily Hispanic (Sherwood 1995). LS&Co. has continued to utilize GIS in managing its growth by increasing distribution to select specialty stores. The company wanted to use a tool that would allow it to view the reach of current authorized retailers in order to ensure that new stores would not adversely impact the sales opportunities of existing stores. Using Esri's Business Analyst Online, the company may perform such a task internally now, instead of using an outside vendor as LS&Co. has done previously. Accounts manager Maurice Kelly explains that geography is, in fact, one of the key evaluation criteria when deciding to select a new retailer. GIS technology also allows the firm to save time and money by reducing the need for in-store visits while opening more competitive store locations (Esri.com).

Since 2006, Pillar (2010) explains how PETCO has begun implementing GIS-based site selection solutions in order to minimize the risk associated with opening a new location and maximize the return on the invested capital it takes to build a store. Shawn

Hanna, the company's director of financial analysis, explains how the chairman previously made location decisions based upon intuition, but because opening a new store often requires a long-term real estate investment, the company wanted a more scientific basis to assess the sales potential for new locations in order to minimize costly mistakes. In addition to using Esri's Business Analyst as a solution to site selection, Hanna explains that the tools have been beneficial in analyzing other spatial problems related to merchandise planning and advertising.

Nike is another major retailer which has been utilizing GIS, originally licensed from Esri in order for the company's sales department to help staff management understand where Nike products were being distributed. Combining this and retail store location data with data such as demographic information, sales history, and locations of schools or competitive sports teams has provided a more factual basis for decision-making processes at the firm. Moreover, the recent introduction of using the server and desktop-based Esri Business Analyst online has improved communications across the company and with affiliates such as Cole Haan, Converse, Hurley, and Umbro. The GIS enhances the accessibility of data such as retail expenditure and market research information which may be used to expediently generate custom reports while also providing a means of analyzing the data which may provide new insights and improve the quality and scope of business data (Esri.com).

## 2.4 The Implications of Volunteered Geographic Information

### 2.4.1 Social Media and “Big Data”

Applications of GIS, such as in the context of developing location intelligence for retail firms examined here, have long been dominated by perspectives from space using a Cartesian approach according to Euclidean geometry, though Sui & Goodchild (2011) suggest that location-based social media has revived an interest in developing an approach from the perspective of place, which until recently has been off the intellectual radar of many GIScientists, many of whom have made no distinction between the terms space and place. This shortcoming may be attributed to previous limitations in available data which could be handled within a GIS. Recently, however, Manovich (2011) explains how the emergence of social media has created new opportunities to study consumer behaviors as users encourage us to engage in reading their tweets, reviews, and follow their geographical trajectories through applications such as Twitter, Foursquare, and Yelp, all while sharing their location. Miller (2010, 182) concurs, explaining that there is now “tremendous opportunity to discover new insights and knowledge about spatial economies that can inform theory and modeling in regional science.”

The availability and ease of accessing such data may be attributed to the rise of Web 2.0 technologies, referring to web applications including social-networking sites that facilitate interactive information sharing, user-centered design, and collaboration (Batty et al. 2010). What has resulted, explains Goodchild (2007), is the widespread engagement of large numbers of private citizens, even those with limited qualifications, in the creation of geographic information. Goodchild has termed this resulting data volunteered

geographic information (VGI) as a part of the more general production of user generated content enabled by Web 2.0 technology. The interactive websites supported by Web 2.0, allow users to upload their locations into online content and apply the data in diverse ways, ranging from simple displays of locations to sharing location attributes (Warf & Sui 2010). With this trend, VGI can influence analyses carried out through GIS in the provision of large quantitative and qualitative data sources that may be used to answer long-standing research questions, particularly as data reflects more naturalistic observations of individual behavior as opposed to artificial responses to survey questions or interviews probing for recollections of past behavior (Haklay et al. 2008; Miller 2010). Miller (2010) suggests that the increasing availability of fine-grained data on the location of individuals with respect to time, along with data about social connections and commentaries, permits an unprecedented view of society and the economy from the “bottom up”, constituting a paradigm shift in which GIS may be understood as media for communicating and sharing knowledge among the masses, rather than the old model in which GIS served the needs of a single user behind a desk (Sui & Goodchild 2011).

The proliferation of such detailed real-time individual data at the local level through geo-social media applications may have profound implications in terms of retail operations and planning, and the degree of participation in such applications is unprecedented. Miller (2010) reveals that the online social networking site Facebook achieved 20 million users in April 2009. Because of the rate of usage of social media, retail firms have access to the whereabouts and timing of individual consumer activities like never before. VGI is particularly relevant in this regard because individuals’ multi-

purpose trajectories have yet to be thoroughly integrated into retail site location analysis through conventional modeling (O’Kelly 2009). The possession of such personal data may provide firms with a much better understanding of the geography of consumer behaviors in space and time which will allow retail firms with the ability to respond more effectively to demand and to determine the most advantageous sites for retail outlets in the future development of a firm.

In fact, this explosion of “big data”, of which a large component has been fueled by social media and VGI, has been estimated to allow savvy retail companies with the capability to improve their operating margins by 60 percent (Manyika et. al 2011; Stone 2011). Stone (2011) reveals it is estimated that consumers and businesses alike now store approximately 13 exabytes of information on their PCs, laptops, and other electronic devices, or about 52,000 times the amount of information housed in the Library of Congress. To place this in perspective, an exabyte is equal to one billion gigabytes, and the amount of technologically stored data is projected to increase 25 percent a year according to research by Martin Hilbert at the University of Southern California.

Though big data has been one of the hottest current topics in business analytics, the term itself refers to data sets whose size is beyond the ability of the software commonly used to manage and analyze consumer data. In other words, while the potential for retailers to improve operational efficiency has now been offered through the generation of more transparent information which has become available at a much higher frequency, the technology which optimizes the management and manipulation of the relevant information has yet to emerge. The ability to analyze such data sets will thus become a

key basis of competition for retailers, for whom big data may allow for the creation of even narrower segmentation of consumers and subsequently more precise tailoring of their products, services, and locations. In the United Kingdom, for instance, Tesco has become a prime example in the use of big data to capture market share from its local competitors who have lagged in their use of big data (Manyika et. al 2011). As such, there are serious implications for companies in the retail sector, suggesting that big data will play an even larger role as time progresses.

#### ***2.4.2 VGI in the Context of Qualitative GIS***

Much of the VGI which has been a part of the big data explosion is generated with not only the spatial coordinates of an individual through geotags but will also be produced with range of qualitative information as well. While some of this data may merely be noise which is of no use to the retailer, there is potential value in listening to user sentiment through social media in regard to improving the agility of a firm to identify consumer demands and engage in product and store development. However, as the development of Web 2.0 technology remains a very recent phenomenon, the academic literature devoted to using VGI for the purposes for retail store planning and development remains limited. This study therefore seeks to offer insights which may be gathered from using geo-social media in terms of the implications for large firms developing a network of retail outlets.

Implementing data from VGI in this manner within geographic research is illustrative of a growing trend towards an approach that has been referred to as “qualitative GIS” in which multiple methods, both qualitative and quantitative, are utilized in order to

triangulate the impartial knowledge gleaned from each (Kwan & Ding 2008; Jung & Elwood 2010). Warf & Sui (2010) explain how the rise of qualitative GIS has been a response to a perspective of GIS as spatially deterministic in requiring graphical representations to be tied to geometric coordinates, enabling the display of readily observable empirical phenomena such as demographics or infrastructure rather than concepts such as class and ethnicity explored in critical geography and social theory. In other words, conventional GIS privileges the quantitative and observable, placing value on precision, simplification, and certainty, over the qualitative and nonobservable, which inherently include complexity, ambiguity, and multiplicity, and ultimately reifies absolute conceptualizations of place.

By contrast, a relational understanding of place, described in detail by Massey (1994), as a constellation of individual social relations which are articulated in space over time brings to the fore the contingent nature of place and thus presents the inherent inconsistencies in the ability to understand the implications of place through conventional GIS and associated data sources, which have lacked a sufficient engagement with issues of social context, relations and power (Warf & Sui 2010). Yet, VGI from geo-social media is a unique source of geographic information embedded with both quantitative and qualitative data, thereby offering the potential to eliminate the need for the implementation of multiple methods in order to elucidate the role of both space and place in the research process.

Thus, the availability of VGI from such applications may have significant implications in the future of qualitative GIS research as a growing body of work has become interested

in drawing upon alternative methodologies to meet the limits of conventional GIS in which phenomena become decontextualized place. In other words, the rich content produced through location-based social media offers the possibility to facilitate geographic research that illuminates the importance of place perceptions in spatial processes while remaining grounded in the relevance of Cartesian coordinates defined by Euclidean geometry. Moreover, utilizing this data in geographic research is ultimately consistent with recent trends (e.g. Wainwright & Barnes 2009; Sui & DeLyser 2012) which call for the implementation of hybrid approaches to mediate persistent methodological, epistemological, and philosophical dichotomies, such as that between space and place, within the discipline of geography to offer a holistic perspective on spatial processes and issues facing society today.

## **2.5 Case Study: Starbucks**

To investigate the implications of these trends, this research will consider Starbucks, a large multi-national retailer of coffee, as a case study from which to understand how dimensions of both space and place have had implications in the performance of the company's retail outlets over time. Honack (2009) explains that the Starbucks value platform has rested on three key elements: premium coffee products, superior customer service, and a unique coffeehouse atmosphere. Perhaps much of Starbucks' global success has been due the latter, creating a sense of "the third place", within its stores, which has created a brand personality that has distinguished it from many other multi-outlet retailers. CEO Howard Schulz (Schulz & Gordon 2011, 13) explains that if home is



the “first” place and work the “second”, then a public space such as a coffeehouse is the third place, “a social yet personal environment between one’s house and job, where people can connect with others and reconnect with themselves.” The company persistently strives to create an intensely personal experience within the brick and mortar walls of every retail location that effectively appeals to customer emotions. Starbucks does so by offering a great deal of attention to the retail atmosphere, including everything from the layout, to the furniture, to the music, but more importantly the baristas, whose ability to engage with customers is at the heart of the Starbucks experience (Buchanan & Simmons 2009). It is that experience, beyond locational optimization, on which the company has historically relied to produce a place that is a destination which draws loyal consumers.

### *2.5.1 Location Strategy and Expansion (1971 – 2007)*

When Schulz bought the company in 1987, Starbucks was still a small local retailer with 11 outlets in Seattle selling whole bean coffee exclusively. The company’s founders, Gordon Bowker, Jerry Baldwin, and Zev Siegl achieved modest success early on in the company’s history, offering whole bean Arabica coffee to a small but expanding segment of consumers with an interest in specialty coffees, after they founded Starbucks Coffee, Tea, and Spice Company as a Seattle-based coffee roaster in 1971 (Buchanan & Simmons 2009). At that time, the coffee market was dominated by store-bought brands such as Folgers and Maxwell House, and nationwide coffee consumption was actually on the decline (Koehn, Besharov, & Miller 2008). However, Schulz saw a tremendous opportunity to expand the niche segment of high-quality coffee when he purchased

Starbucks, as long as the company could move swiftly and gain a first-mover advantage in becoming the prototypical specialty coffee brand in the U.S. His vision involved recreating the Italian coffee bar culture, one in which espresso bars provided an inherently social experience, in the United States, using Starbucks' reputation for fine coffee to serve espresso beverages while providing a comfortable, appealing store experience. Schulz was confident that his firm's offering which included a retail experience based on premium quality coffee, responsive service, and inviting ambience would garner broad appeal (Koehn 2001). As such, Starbucks would position itself away from the other specialty coffee suppliers entering the American market at the same time.

Several factors conspired to create opportunity in the specialty coffee market. In the latter decades of the 20<sup>th</sup> century, American consumers had become increasingly interested in specialty foods, including organically-grown produce, fine wines, and artisanal chocolates and cheeses. Additionally, rising per capita incomes enabled middle-class consumers to indulge in "small luxuries" such as a specially prepared coffee beverage. Consumption of such small luxuries in lieu of extravagances which these consumers could not afford was a way for many Americans to participate in the nation's growing wealth (Koehn, Besharov, & Miller 2008).

With large potential for the specialty coffee market, Schultz promptly devised a business plan that outlined a rather aggressive growth strategy in which the company would open 125 stores in the five years following his purchase of Starbucks in 1987, poising the company to become the market leader that would define the nascent specialty coffee industry (Koehn 2001). Initial expansion was focused throughout the Pacific

Northwest, concentrated in cities such as Seattle, Vancouver and Portland. There was already a strong pre-existing coffee culture in each of these cities, and Starbucks intended to capitalize on regional tastes and consumers' awareness of the brand in order to attract customers to the company's new espresso bars (Honack 2009). As such, Schulz's strategy was to gain a strong market presence locally before expanding beyond the region.

This was a similar strategy that has successfully been engaged by a number of major retail firms. Graff and Ashton (1994) examine the spatial expansion of Wal-Mart by which they have found the firm's initial expansion to demonstrate a "contagious" pattern through which there is a gradual extension of the market area in adjacent states away from the original base in Bentonville, Arkansas. They explain that a significant factor in this strategy is often the limited availability of capital among nascent firms, and it is therefore frequently simply a policy necessity; a single unsuccessful store at this stage could have severe consequences to the company's future. While capital undoubtedly also imposed limits upon the expansion of Starbucks at these early stages, the firm also faced the challenge of gaining awareness outside of the original region where many consumers had little previous experience with specialty coffee at the time.

This posed a particularly difficult challenge when Schultz proposed concurrent expansion into the city of Chicago in 1987 alongside regional contagious expansion in the Pacific Northwest. The first Chicago outlet opened downtown about a block from the Sears Tower. Aside from the challenges of building brand awareness, the company had to invest in the infrastructure to support expansion thousands of miles away while also investing in the hiring and training of employees who had never heard of the company

and who were also unfamiliar with specialty coffees (Koehn 2001). Schulz's decision at this stage was unique, since penetration into the Chicago market represented a hierarchical expansion, in which firms seek maximization of market share in focusing on metropolitan areas, usually only considered after the accumulation of large capital availability (Graff and Ashton 1994). For instance, Wal-Mart delayed employing any elements of a hierarchical expansion strategy until the company had opened over 100 outlets in a contiguous region surrounding the firm's base. Despite the limitations and perils of implementing such an expansion strategy prematurely, Schulz was determined to test the feasibility of a national chain of coffee bars outside the Seattle home base. Additional outlets in Chicago were opened, yet many of the issues that Shultz and his advisers had foreseen did indeed materialize and resulted in significant losses for the firm.

Meanwhile, however, the company also focused on building brand awareness through the distribution of a mail order catalogue, targeted towards consumers in specific cities (Koehn 2001). The purposes of the catalogue were actually twofold: Not only did the catalogue help to educate consumers about the emerging specialty coffee market and build brand recognition, but because executives could determine which buyers made the effort to obtain coffee it also helped the firm understand where there was a demand for the specialty market and where there was not, thus facilitating the selection of sites for new outlets. Wholesale distribution also served to enhance brand recognition through sales to restaurants and institutional purchasers, securing important accounts including Horizon Air, a subsidiary of Alaskan Airlines, and Nordstrom. Even with growing sales,

however, losses also mounted as the business spent more than what it took in to lay the foundation for national expansion (Koehn 2001).

Schulz believed without investing in the necessary organizational infrastructure, including hiring of seasoned executives, constructing a larger roasting facility, and placing sophisticated management information systems, the company never would have been able to accelerate growth at the speed with which it would do over the coming years. In 1989, Starbucks hired retail veteran Howard Behar to help turn around the Chicago market and helped to focus the company's attention toward customer service, including the hiring of highly people-focused baristas (Honack 2009). Hiring additional experienced executives from established food and retail firms helped to develop key strategies to prepare for additional growth, and by 1991 Schulz had raised an additional \$32 million in private financing. At that point, the company was ready to enter the southern California market with freestanding stores in Santa Monica, Brentwood, and Los Angeles where it became immediately popular. Word-of-mouth was the primary channel through which the new brand locations were promoted, as the firm traditionally refrained from investments in advertising. The firm eventually gained a large number of regular consumers throughout California, the Pacific Northwest, and Chicago by the early 1990s and accordingly emerged as one of the leading specialty coffee purveyors in the country (Koehn 2001; Honack 2009).

Schulz & Gordon (2011) reveal that Arthur Rubinfeld, currently president of global development, played a critical role in the company's expansion and branding at this early stage in the company's history. Koehn (2001) explains that the company's early rivals

used franchising as a logical way to expand and finance swift growth, while Starbucks was primarily concerned about building a brand, focusing on the retail atmosphere, quality of products, and levels of service associated with the firm. Rubinfeld is credited by Schulz & Gordon (2011) for his keen ability to negotiate leases for stores on properties in high-traffic, highly visible locales near other desirable retailers while also maintaining a sensitivity for how space resonates with people. Rubinfeld, originally an architect and real estate broker, set high standards for the construction of outlets, ensuring that the design of each space, including the layout, lighting, and furnishings, reinforced Starbucks' brand image. At the same time, Rubinfeld sought to negotiate lease agreements in order to locate stores in areas such as the path of people's daily shopping experiences or their route to work as a means to provide easy access for potential consumers.

Orin Smith, while serving as CFO, had explained how the company "cherry-picked" early markets in which the firm entered by going into highly visible areas and then progressively working its way out as the company built brand equity and awareness while leveraging operational infrastructure (Koehn 2001; Buchanan & Simmons 2009). In 1993, the company began to broaden the geographic scope of its outlets by moving into its first East Coast market, Washington, D.C. During the following two years the company expanded into a number of other major metropolitan areas along the East Coast, including Boston and New York, as well as Atlanta, which would serve as the hub for the firm's southeastern growth. Upon entering a new region, Koehn (2001) explains how Starbucks typically opened outlets in a major market that would also function as the

logistical and managerial hub for further expansion. From this core, it branched out to nearby spoke markets, including smaller cities and suburban locations with demographics illustrative of the typical consumer profile, who were considered to be sophisticated and affluent (Buchanan & Simmons 2009; Honack 2009). Significant variables to choose new sites included population density, residents' median age and education level, estimated household income, as well as the state of local competition (Koehn 2001). This strategy of establishing market presence and subsequent saturation in major metropolitan areas first is analogous to the hierarchical expansion discussed by Graff and Ashton (1994) as it occurs in opposition to the "reverse-hierarchical" expansion strategy employed by Wal-Mart, which sought to expand and saturate the rural market before penetrating areas of major population density.

A particularly interesting facet of the company's retail expansion and location strategy has been store clustering, used as a mechanism to attract consumer attention, consume market share, while deterring other coffee retailers from entering very important markets (Koehn 2001; Honack 2009). Starbucks accordingly opened several stores in very close proximity to each other as it expanded throughout the 1990s with the intention of increasing sales and brand awareness, though this was often done at the cost of cannibalizing existing outlets. Thus, store sales frequently slowed once the firm saturated the market, though senior management believed that the advantages of store clustering outweighed its potential drawbacks (Koehn 2001). Buchanan & Simmons (2009) add that store clusters also helped manage store traffic, particularly in the crucial morning hours when as much as 60 percent of a store's sales occur. If customers perceived the wait time

to be too long due to long lines or parking difficulties, the store faces the danger of losing a customer's patronage. However, more stores create a better opportunity for customers to gain quick access and for Starbucks to capture a large portion of market share. Moreover, the ubiquity of stores is intended to facilitate sales throughout the day, making it easier for customers to visit a Starbucks as they travel between home and work activities in any direction.

By 1996, the company had become the nation's largest purveyor of coffee with over 900 outlets selling various beverages, coffee beans, food items and assorted merchandise and was opening almost one additional outlet per day (Koehn 2001). However, the emergence and continued proliferation of competing retailers in the 1990s and 2000s suggested that Starbucks still had much more room to grow in the developing specialty coffee market, thereby fueling continued expansion as an attempt to capture much of this consumer demand. Koehn, Besharov, and Miller (2008) explain that another powerful force driving rapid growth in the number of outlets planned to open was Wall Street. Because Starbucks had become a public company in 1992, the retailer has been under constant pressure to improve its financial performance from quarter to quarter, and expanding the store network was utilized as a primary mechanism to boost revenues and ensure continuing returns for investors. Stakeholders supported expansion because of the implications for the firm's stock, and as a result, by 2007, there was on average one store for every 28,000 people in the nation, though some cities such as Seattle had a much higher density at one store for every 13,000. In 2006, the company had announced a long-term goal of 40,000 stores around the world.



### *2.5.2 Corporate Restructuring (2007 – Present)*

By 2007, the company had become an international brand and an icon in a relatively short time span. The number of Starbucks outlets had boomed to 15,000 stores internationally, with 10,684 in the U.S. alone, and annual revenues exceeded \$9 billion (Koehn, Besharov, & Miller 2008). Buchanan & Simmons (2009) explain that growth was Starbucks only mantra as it attempted to satisfy Wall Street and simultaneously stave off competition. However, the challenges of managing a gargantuan store network with continued plans for expansion began to loom on a company which had been founded upon a value platform offering an intimate coffee experience. As a result, staying true to the organization's original mission, which provided generous benefits to employees and delivered outstanding service based on personal relationships with customers, was complicated in the face of the imperative of expansion. Schulz admitted in a leaked 2007 memo that straying from the company's core values had begun to result in a "watering down of the Starbucks experience" and "commoditization of the brand" (Schulz & Gordon 2011). For instance, automated machines removed the aroma of coffee from store interiors while also routinizing the job of the barista, creating a more sterile and homogenous store environment not dissimilar from the many national and international fast-food chains that had begun to offer comparable espresso based beverages at a lower price point (Koehn, Besharov, and Miller 2008).

Schulz & Gordon (2011, 156) also suggest that over the course of expansion the company began to deviate from the meticulous approach to store site selection once managed by Rubinfeld, and outlets were consequently placed less deliberately, admitting

the company adopted an ideology which presumed “all we had to do was show up to be successful.” A Florida broker who worked with Starbucks agreed, suggesting that with the accelerated pace of expansion the company sacrificed real estate decisions. Further, as a result of the expanded customer base, the profile of the average Starbucks consumer had changed to include higher percentages of consumers between the ages of 18 and 24, people of color, as well as those with lower incomes. With this newly expanded customer base, Starbucks’ products came to be considered more as an affordable luxury, but 80 percent of orders were also now being consumed outside of the store, suggesting that the company’s outlets were no longer perceived by many consumers as a destination or “third place” but merely a point of purchase. Other analysts suggest that the company started to ignore its former store location formula as it became swayed by perks offered by landlords eager to bring Starbucks to their neighborhoods. Interiors also became generically retrofitted with a prescribed palette, feeding into a growing reputation of the company as just another soulless and ubiquitous chain. Moreover, as an effort to reduce maintenance costs as the company grew, stores became configured with fewer comfortable chairs and less carpeting, ultimately making Starbucks a less inviting place (Buchanan & Simmons 2009).

Additional challenges had been imposed by the downturn in the United States economy. Consumers were under pressure to curtail discretionary spending as prices for daily necessities rose quickly, and median household income, adjusted for inflation, actually declined (Koehn, Besharov, & Miller 2008). Many families could therefore no longer afford some of the small luxuries to which they had become accustomed during

the previous years when the economy had expanded with relatively little inflation. For Starbucks', whose customer base had gradually broadened to include Americans with lower average incomes as the company expanded, the economic downturn therefore had serious implications that were just as detrimental to the company as a declining brand image. Further, Starbucks had selected store locations based upon population projections in areas such as the South and in Southern California which had both been expected to grow rapidly with new development. However, these were also regions hit hard by the housing crisis, so that development did not occur and the expected sales did not materialize (Buchanan & Simmons 2009).

By the end of 2007, Starbucks had announced a decline in same-store sales for the first time ever, and the company's share price was down to \$18 from \$35 the same time the previous year (Koehn, Besharov, & Miller 2008; Buchanan & Simmons 2009). The company soon announced that it would close stores across the US, with a final number of over 700 nationwide (Buchanan & Simmons 2009). Almost every major city would lose at least one store. The decision regarding which stores to close was financially based upon calculations as to whether or not the store would provide acceptable returns even once the company improved operations and the economy recovered. One staggering statistic among the stores to be closed, however, was that 70 percent of these had only been opened in the previous three years during an aggressive growth period in which approximately 2,300 new locations were opened, suggesting that the less deliberate planning in store location was a significant detriment to store performance (Schulz & Gordon 2011).

The trajectory of declining sales and subsequent store closures by Starbucks presents a unique opportunity to examine the geographic implications from the dual dimensions of space and place to understand how each may impact store performance. The management of the functional characteristics which had once produced a perception of a third place which was a destination for many loyal consumers and created a strong brand image of sophistication and high-quality service had become tarnished under the imperatives of growth and subsequent standardization of interiors and employee functions. The less deliberate development of outlets in regard to physical location also played a role, suggesting that deviating from a spatial approach which facilitated accessibility was also neglected. This scenario nonetheless exemplifies the need for the implementation of location strategies which seek to develop location intelligence through methods which illuminate the factors which are relevant to the planning of retail outlets from both perspectives of space and place.

### Chapter 3: Methods, Study Area, and Data

This thesis is intended to provide an assessment of the methods which offer insights to retailers as they attempt to develop location intelligence as a means to facilitate the planning of store outlets and networks in a manner which optimizes individual store performance as well as the performance of the broader store network. Rather than adhering to a single approach which only narrowly defines the implications for retailers, the methods used here seek to address a broader geographical perspective from conceptualizations of both space and place to offer a comprehensive approach to providing a richer source of location intelligence. In the aftermath of 700 store closures across the US since 2008, the Starbucks Corporation provides a great opportunity for a case study using the proposed hybrid approach. While the nature of several of the methods implemented would prove too costly and time consuming to conduct a study at the national scale, the Columbus, OH Metropolitan Statistical Area (MSA) provides a manageable alternative area of study, with a robust store network that has lost several individual stores, in which this research may be realized. The methods used are structured around the literature review framework which suggests a preference for an integrative methodological approach, leading to a discussion of location-based social media as a new data source which I contend has the ability to resonate with both dimensions of space and place. The results of this geographical analysis will subsequently be discussed in three sections:

1. Quantitative Methods in Location Intelligence
2. Qualitative Methods in Location Intelligence

### 3. The Implications of Social Media in Location Intelligence

Each of the above topics will be discussed in conjunction with the relevant data collected and how the results may be situated within the conceptual framework outlined in Chapter

2. The rest of this chapter will be divided into five sections. First, an overview of the methods used will be presented, followed by a description of the Columbus, OH MSA study area. Next, the relevant data sources which will be utilized for analysis and interpretation will be outlined. Finally, a discussion of both the quantitative and qualitative methods will conclude the chapter.

#### *A Mixed Method Approach to Developing Retail Location Intelligence*

In order to develop a comprehensive location strategy which elucidates all of the relevant elements which contribute to store performance, a broad geographical perspective must be implemented. This approach may be distinguished broadly as containing methods which speak to the dual dimensions of “space” and “place” that are a part of geographical knowledge. The preceding literature review highlights some of the current disciplinary contention surrounding the precise meanings and implications of the terms. For the purposes of this research, however, the spatial dimension will be examined from a conceptualization analogous to the notion of Cartesian location, referring to the geometric coordinates of an entity and its proximity and relation to the coordinates of other entities.

In retailing, the spatial dimension has much significance in terms of a consumer’s purchase behavior. Particularly for Starbucks, a purveyor of a low-motivation offering such as coffee, it is likely that consumers will not travel beyond a certain threshold

distance or will opt to choose the outlet of closest proximity when faced with multiple options. As such, the spatial “top-down” approach facilitated through geographic information systems (GIS) may be quite illuminating in terms of store planning and development, and GIS will thereby be used to examine the location of both currently operating and closed Starbucks outlets in the study area as they are situated with regard to a variety of geographic and demographic factors, based upon data collected from both the US Census Bureau and ESRI’s Business Analyst Desktop. Accessibility to these outlets may be defined in multiple terms and is easily manipulated within a GIS. For instance, an examination of the trade areas of individual outlets using ESRI’s Network Analyst to define drive-times provides a more nuanced analysis, as opposed to a simple buffer based on radial distance, to produce a more accurate representation of the areas from which an outlet draws consumers. Additionally, segmenting the market area by various characteristics and lifestyle categories will offer further insights regarding not just the quantity of consumers in the trade areas but also the quality as well. This analysis will consequently serve as the basis to provide insights on how the company may best negotiate the configuration of its store network in order to maximize accessibility to consumers and capitalize on areas of market opportunity.

Though the accessibility factors examined through a GIS undoubtedly provide a strong foundation through the identification of prime areas for market opportunity, the growing recognition among geographers and marketers alike of the effects of the ground-level functional characteristics of the store environment on consumer behavior and subsequent performance of individual outlets necessitates a methodological approach

which extends beyond an exclusively GIS-based analysis. With this in mind, data regarding the retail atmosphere, including both its external situation and the internal qualities of the site itself, of a sample of outlets will be collected through personal observations. The information gleaned through these observations will provide insights from the “bottom-up” regarding how well each outlet’s store environment is consistent with the company’s value platform and thereby able to maximize store performance.

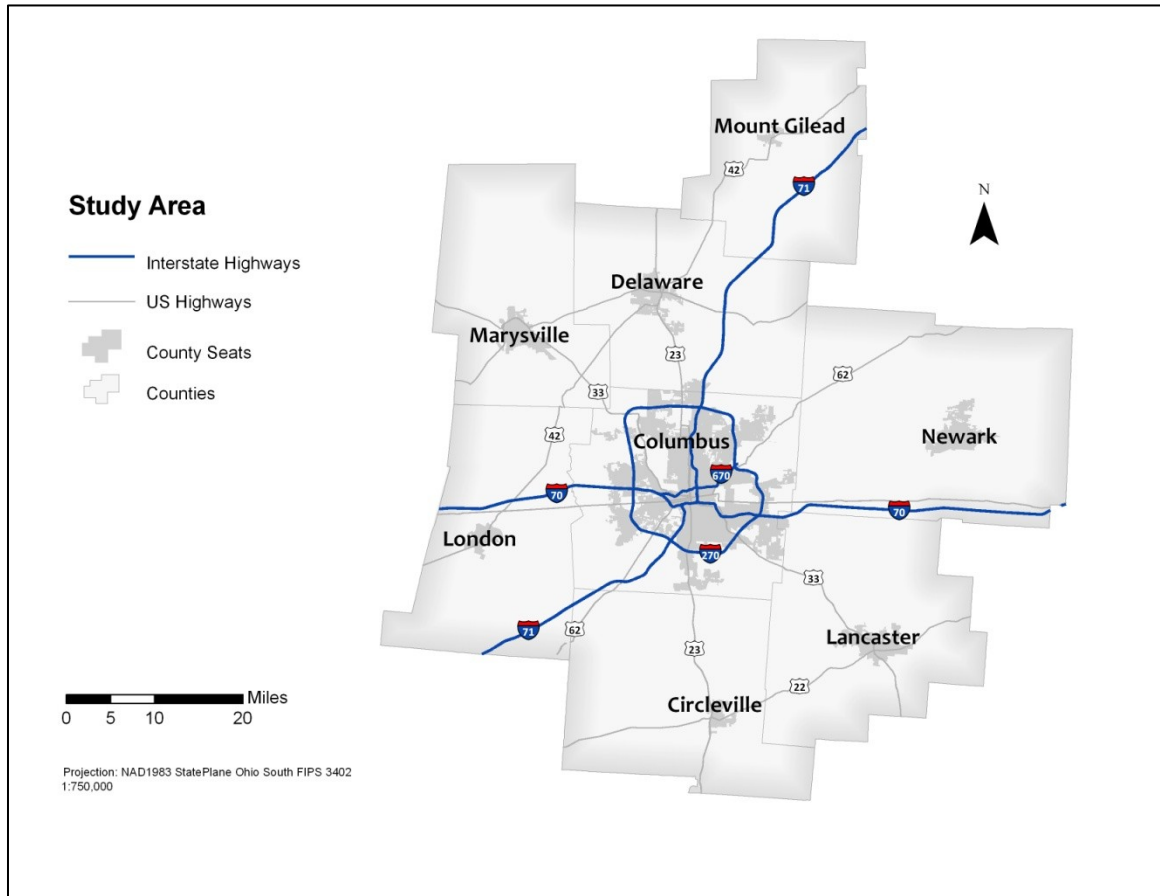
Additionally, individual interviews will be conducted with a sample of Starbucks consumers to explore the psychographic characteristics which motivate their purchase decisions yet are not easily amenable to geo-visual analysis. These assessments have the potential to inform a more nuanced market segmentation based upon consumer values. This process is illustrative of an iterative approach that exists among discussions of “qualitative GIS” in which quantitative and qualitative methods may be used in a triangulation approach to knowledge generation and may be executed in a recursive process as new knowledge is garnered. The ultimate goal of the methods in this study is to demonstrate how a platial perspective has significant implications in store performance, contending that the associated qualitative data ought to be utilized as a company seeks to develop detailed intelligence necessary to planning a comprehensive location strategy.



### **3.1 Study Area: Columbus, Ohio: An Overview of the City and Its Retail Business**

In order to understand the geographical implications which might have influenced store performance and the trajectory of store closures across the study area, a brief overview of the Columbus, OH MSA is beneficial. The study area is defined as an eight county MSA as designated by the US Census Bureau. MSA's are administrative units defined by the Census Bureau as an urbanized area, which combined with its surrounding communities and counties totals at least 1,800,000 people. The Columbus, OH MSA is illustrated in Figure 1.

Figure 1. Columbus, Ohio MSA



Currently the largest city in the state of Ohio, with a population of 787,033, both the City of Columbus and the Columbus MSA have sustained significant growth since 1950, a remarkable trend which has been uncharacteristic of most other large cities in Ohio and the greater Midwestern Rust Belt region (Table 1). Owing to its central location in the state, Columbus developed as a center for trade and transportation. Since Columbus has not historically been dependent on manufacturing as other cities in the region, it has been able to weather the storm of deindustrialization and maintain an advantage over many other Midwestern Rust Belt cities, which has subsequently resulted in decelerated rates of

growth across the state of Ohio and the Midwest in general over recent decades (Teaford et al. 1993). With the region lying within a one-day's drive of over half the US population and major national markets, Columbus remains in a good position to continue to capitalize on its position as a logistical hotspot (columbusregion.com).

Table 1. Population growth 1950 to 2010

	1950	1960	1970	1980	1990	2000	2010
<b>Columbus, OH MSA</b>	745,970	977,790	1,170,780	1,270,290	1,405,168	1,612,694	1,836,536
<b>City of Columbus</b>	375,901	471,316	539,677	564,871	632,945	711,470	787,033

Source: US Census Bureau

Despite the declines experienced throughout much of the Midwest, the 2010 census reports that Columbus has become the 15<sup>th</sup> largest city in the US and the 3<sup>rd</sup> largest state capital, while the MSA surpassed 1.8 million people, exhibiting a growth rate of 13.9% between 2000 and 2010 (columbusregion.com; US Census Bureau). However, much of this population has been concentrated away from the central City of Columbus, as the suburbanization of housing and shopping malls along with the creation of a new outer-belt freeway resulted in the wide-spread relocation of people, business, retail, and services (Hunker 2000). In response to these trends, a number of growth coalitions have placed a renewed focus on downtown Columbus, and a subsequent rebirth of centrally located neighborhoods including the Short North, Victorian Village, and German Village has followed in the most recent decades.

The Columbus MSA has a majority white-collar workforce with 53.4% of all employment falling with the management and professional occupations

(columbusregion.com). Many of these occupations are a part of the 15 Fortune 1000 companies, of which 7 are Fortune 500 companies, located in the area and generate \$225 billion in annual revenues along with the rest of the region's 40 largest employers, including the state and local government and The Ohio State University. These companies illustrate the diversity of the region's economy, including businesses such as Abercrombie & Fitch, AEP, Batelle, Bob Evan's, Cardinal Health, Honda, Huntington Bank, Nationwide Insurance, Limited Brands, Scott's, and Wendy's (Columbus 2020! Regional Economic Growth Strategy).

Beyond a robust and growing economy, which has contributed to sustained growth in personal income and employment, the region boasts other amenities which serve to enhance the quality of life for its residents. With 26 colleges and university in Central Ohio, the region is home to the second highest concentration of college students in the country, providing a large talented labor pool for future employment opportunities. Columbus' health care system has also been recognized among a number of reports and rankings, including US News and World Report which has consistently named The Ohio State University Medical Center as one of America's best hospitals for over a decade. Moreover, the region possesses a remarkable civic infrastructure with three number one ranked civic institutions, including the Columbus Zoo and Aquarium, the Center of Science and Industry (COSI), and the Columbus Metropolitan Library. This along with an array of other cultural institutions, professional sports franchises, and civic festivals has been one reason why publications such as Money magazine have frequently

recognized the Columbus region as one of the most livable communities in the country (Columbus 2020! Regional Economic Growth Strategy).

The characteristics of the Columbus area suggest the region provides an ideal context for robust retail activity and sustained growth. Many national retailers have even recognized the market area as an ideal test market for their products, since the demographics of the MSA are remarkably similar to those of the nation as a whole. As such, the region is the home base for a considerable number of major retail firms. Thus, the Columbus, OH MSA provides an ideal spatial context in which to study the trajectory of closures among the network of Starbucks store as a means of developing a broader understanding of the geographical implications in store performance nationwide. Yet, Hunker (2000) notes that the demographics of the MSA have been steadily changing in recent decades, with a greater amount of ethnic diversity particularly from an influx of immigrants from Latin America and Asian countries. Another important demographic factor to consider is the disproportionate number of those in the MSA, particularly in the City of Columbus, who are in poverty, while the suburban growth centers are underrepresented by this group from a statistical standpoint. Such trends will have critical consequences for the vitality of retailing and necessitate having a keen perspective on the many factors which may impact store performance.

### 3.2 Data Description

To perform the relevant analysis within a GIS, a base map of the study area has been created using shapefiles acquired from a range of sources (Table 2). The basic boundary and features which were used to create a base map of the Columbus, OH MSA were available as TIGER/Line files, while more detailed attributes of the street network and parcels required for further analysis necessitated the acquisition of shapefiles from local organizations.

Table 2. GIS data

Data Source	Description
2010 Census TIGER/Line Files Cartographic Boundaries and Features	Shapefiles extracted from the US Census Bureau's MAF/TIGER database, containing features such as roads, railroads, rivers, as well as legal and statistical geographic areas (census.gov).
Mid-Ohio Regional Planning Commission (MORPC) Street Centerlines 2010	Downloadable GIS files of various geographic features for the Central Ohio (morpc.org).

Demographic data is needed in both the implementation of the location-allocation model as well as in market segmentation. Attributes such as total population, age groups, median income, education level, and race are available from the US Census Bureau, while ESRI Business Analyst Desktop has been utilized as a source for more sophisticated market segmentation based upon lifestyle segment profiles (LSPs),

developed from a combination of demographic sources and consumer surveys regarding consumer shopping behavior.

Table 3. Demographic data

<b>Data Source</b>	<b>Description</b>
US Census Bureau Demographics 2000	A division of the U.S. Department of Commerce, the US Census Bureau is responsible for collecting and providing relevant data about the people and economy of the United States. Conducted every 10 years the Census provides updated population and demographic information. (census.gov)
ESRI Business Analyst Demographic Tapestry (Please refer to the Appendix with a full explanation of these concepts)	ESRI, Environmental Systems Research Institute, Inc. is the largest commercial producer of Geographic Information Systems (GIS). ESRI provides extensive geographic data and the software to analyze it. ESRI Tapestry data was used to classify the downtown population. Tapestry classifies U.S. residential neighborhoods into 65 unique market segments based on socioeconomic and demographic characteristics. Esri's Tapestry Segmentation system combines the —whol of lifestyle demography with the —where of local neighborhood geography to create a model of various lifestyle classifications or segments of actual neighborhoods with addresses—distinct behavioral market segments (Esri.com).

Esri's Business Analyst Desktop also contains the coordinates of all currently operating businesses updated as of January 2010 in its Business Locations database as a point shapefile and from this the network of currently operating Starbucks outlets within the Columbus, OH MSA have been extracted using a select by location operation in ArcMap . Competitor locations in the study area have also been extracted from the

Business Locations database using a select by attributes operation. However, because the database does not include the locations of those stores within the Starbucks store network that have been closed since 2008, the Starbucks Corporate website has been consulted to obtain the coordinates of these additional outlet locations. Finally, Foursquare is utilized as a data source exemplary of a location-based social media application from which the number of check-ins at currently operating Starbucks outlets will be utilized to determine if the usage rates of such social media applications, along with the associated VGI, translates into outlet sales, subsequently providing a useful data source for retailers in developing location strategies (Table 4).



Table 4. Business data

Data Source	Description
ESRI Business Analyst	<p>Updated annually, Business Locations and Business Summary databases give overview information about businesses by location and industry classification codes. The Business Locations database classifies businesses by: SIC and NAICS industry classifications Infogroup's proprietary six-digit SIC and eight-digit NAICS The Business Summary database gives statistics for: Total sales Total number of employees Number of businesses by industry (Esri.com)</p>
Starbucks Coffee Company	<p>Company website includes factsheet about history, news, menu, and facts about social responsibility and community outreach. The Store Locator allows users to find outlets in any area and also provides details about individual store hours and amenities, such as the availability of Wi-Fi, Drive-Thru, and oven-warmed food. Website also includes .pdf of store closures that have occurred across the United States since 2008. (Starbucks.com)</p>
Foursquare	<p>Location-based social media application which allows users to “check-in” at registered locations with mobile devices and earn points and badges with repeated visits. Users may upload photos and leave comments about their visit at visited locations. By adding friends on Foursquare, you can share your whereabouts with others while receiving notifications of their current locations as well. (foursquare.com)</p>

Qualitative assessment (Table 5) will be based on a combination of sources, including in-person observations guided by a formal checklist (Table 6), while also relying on Google Street View and Bing Maps to provide imagery of the surrounding environmental

context to help convey the findings of the ground-level observations. Additionally, individual interviews with consumers of Starbucks coffee will take place among a sample of outlets.

Table 5. Qualitative data

<b>Data Source</b>	<b>Description</b>
Store Observations	In-person assessment of retail atmosphere, including both internal functional characteristics of the outlet as well as context of surrounding landscape, guided by formal checklist.
Google Earth Street View	Technology featured within Google Maps and Google Earth with Street View allows users to explore places around the world through 360-degree street-level imagery (google.com).
Interviews	Individual consumers asked a series of question in a means-end analysis to determine the values which motivate their purchase decision. Projective techniques also used to assess perceptions of brand personality.

Table 6. Checklist for evaluation of atmospherics

Traffic Flow and Accessibility	Number and type of vehicles Number of pedestrians Availability of transit Access to major highways and thoroughfares Level of street congestion Quality of street access
Retail Structure	Number of competitors in area Types/complementarity of neighboring stores
Site Characteristics	Availability of parking Visibility from street Lot size Condition of structure
Retail Atmosphere	Noise level Music Scents Lighting Cleanliness Attractiveness of merchandising displays Density/crowding Layout and seating Level of service Other customers

### 3.3 Quantitative Methods

In the context of a retailer such as Starbucks, whose retail offerings are homogenous across outlets and whose outlets do not vary greatly in store design and size, there is no reasonable quantifiable attribute, such as store size, with lends itself to an assumption of varying degrees of attractiveness, thereby implying a dissimilar range of associated service areas, as in spatial interaction models. Rather, as Ghosh and McLafferty (1987) note, location-allocation models are a more appropriate means by which to determine sites within a multi-outlet network of a retail firm operating uniform outlets in a

particular area. Consequently, this research utilizes the concepts of location-allocation models in order to suggest an optimal configuration to operate a network of Starbucks outlets within the Columbus, OH MSA following a management decision to close seven outlets within the region (Table 7). These outlets are geocoded and converted to a point shapefile in ArcGIS for inclusion in location-allocation modeling along with those 35 currently operating outlets whose data has been obtained from the 2010 Business Listing database available through Esri Business Analyst Desktop. While the database also includes licensed stores within the perimeter of other business locations, corporate offices, airports, and shopping malls, only free standing stores will be considered in the subsequent model under the assumption that the other outlet varieties have a minimal degree of attraction beyond the internal environments of which they are a part. The outlets have been classified accordingly and verified using Starbucks.com. A complete listing of the entire study area store network is available in Appendix A.

Faced with a decision to close existing stores, it is reasonable to believe that a primary management objective would be to minimize the total number of population that would no longer reside within the trade area of any Starbucks outlet. Under the assumptions of central place theory, consumers of low-motivation offerings, such as those provided at quick-service restaurants and specialty coffee shops, may actually substitute products and services or even completely forgo consumption if a particular brand's outlet is not easily accessible within a certain constraint. This is based on the notion that since individuals bear the cost of travel, distance and travel time have critical implications on consumer purchase decisions. Moreover, since research has demonstrated that 85 percent of the

revenue of quick-service restaurants is generated from consumers residing within a three-mile radius, it is vital for industry retailers to maximize the number of people within this constraint.

This scenario may be effectively analyzed through an implementation of the covering model, more specifically what is known as the maximal-covering location (MCL) model which considers a specified number of outlets to be opened, or remain opened as in this case study, in order to determine the locations that will maximize the coverage of the total demand by satisfying the following condition:

$$\mathbf{Max} \sum a_i y_i$$

$a_i$  = relative demand at node  $i$

$y_i$  = 0 or 1

Demand may be defined in terms of total population or particular segments of the population. Service utilization is determined by the accessibility of consumers to a facility within a specified time or distance constraint, and consumers located beyond this maximum constraint are assumed not to be adequately served and thereby unlikely to purchase an offering from that outlet. As such, the value of  $y_i$  used in the equation will depend on whether or not node  $i$  is covered by an outlet in order to indicate whether or not a demand node is served by an outlet. Those particular demand nodes will be assigned a value of 1. Conversely, the uncovered demand nodes are considered to be

beyond the range of the outlet and thereby assigned a value of 0, indicating a lack of coverage.

Various approaches to defining the coverage of a trade or service area of an outlet have been utilized over time, ranging from radial distances to irregularly shaped polygons modified by weights and other controls calculated through algorithms. Desktop GIS software can now also calculate trade areas efficiently based upon a specified drive-time using complex spatial algorithms. Since transportation networks strongly influence the travel behavior of prospective customers, market areas based upon driving distance or time are also generally considered to be more accurate (Thrall 2002). This approach has subsequently become more commonly utilized by retailers to develop more precise market intelligence. For instance, Sherwood (1995) explains how after using GIS in Arby's store development it was discovered that the majority of revenues for the fast food chain are generated from those consumers residing within a five-minute drive of an outlet. In accordance with such trends, the objective function of the MCL in this study is defined using a network distance defined in maximum drive-time which will represent the boundaries of the trade areas of individual outlets.

Demand in this case study is considered at a scale of the Census Tract defined by the US Census Bureau for the year 2000, because this is the smallest scale at which more detailed demographic and segmentation data is currently available for additional analysis in latter stages of this research. The mean centers of each Census Tract within the study area are generated in ArcGIS to represent the demand nodes within the MCL, and each node is weighted by the total population of each tract according to data from US Census

2000. Additionally, this case study will consider demand in the implementation of the MCL in a manner similar to the competition ignoring model proposed by Goodchild (1984). In light of Birkin, Clarke & Clarke's (2002) discussion of the inherent difficulties in modeling competition in GIS and how this mediates a store's presumed service coverage, the scope of this research will not extend into more complex modeling but rather draw on alternative methods in the generation of location intelligence. As such, the only outlets which may impede upon an individual trade area are other Starbucks outlets, reasoning that all consumers that are located within an outlet's trade area are potential consumers.

Esri's Network Analyst extension for ArcGIS is used to determine the trade areas of the outlets. Yet, to implement the MCL using service areas indicative of five minute drive-times from the store network outlets, the corresponding travel-times for each segment of the Street Centerline shapefile obtained from MORPC are calculated first. Since each segment's length is provided in feet while travel speed is represented by miles per hour, a minutes field is added and generated using the following equation:

$$\text{Minutes} = (60 * \text{LENGTH}) / (5280 * \text{MPH})$$

Following this calculation, the Street Centerline shapefile is converted into a Network Dataset in which the Network Analyst extension may solve a variety of routing problems. Using the Service Area tool, the outlet locations shapefile is imported to represent the relevant facilities in the creation of trade areas. No barriers are defined in this analysis,

and the Minutes attribute field in the Network Dataset is used as the cost impedance function. Though a five-minute drive time is used as the primary impedance in the subsequent analysis of demand coverage, Network Analyst allows for the inclusion of additional “breaks” to assign various levels of service coverage, and more restrictive trade areas are additionally defined in terms of two- and three-minute drive times. The direction of the service is generated using the driving time calculation towards the facilities, while a restriction is imposed preventing travel in the wrong direction on one-way streets in the calculation of service areas.

Network Analyst is used in three iterations of calculating store network service area coverage. First, service areas are defined for the store network prior to any store closures in order to assess the total market coverage prior to the closure of any outlets. The next iteration will generate the store network service area coverage after the closure of the seven area stores in order to calculate the difference in market coverage. At this point, the MCL will be implemented in order to determine an alternative store network configuration which will either minimize losses in demand coverage or perhaps sustain the demand coverage of the former network. This is determined through an iterative process of generating service areas using Network Analyst to test the demand coverage of a variety of network configurations.

One differentiating factor among stores in the network which has potential implications in defining service areas is the accessibility of outlets by automobile. The five-minute drive times used as an impedance in GIS applications by other quick-service restaurants is implemented for outlets which are retrofitted with drive-thrus and parking



lots. While most Starbucks outlets in the network are retrofitted with either drive-thrus or designated parking lots, there are a few anomalies which have neither and can therefore be assumed to primarily focus on serving pedestrian traffic (Table 7). Starbucks.com indicates which stores are retrofitted with drive-thrus, while Google Earth has been used to validate the presence or absence of designated parking at each site.

Table 7. Outlets without designated parking and/or drive-thru

<b>Store Name</b>	<b>Address</b>	<b>City</b>	<b>Open/Closed</b>
Ohio State University	1784 N. High St.	Columbus	Open
Arena District	339 N. Front St.	Columbus	Open
German Village	650 S. 3 <sup>rd</sup> St.	Columbus	Open
88 E. Broad St.	88 E. Broad St. #C	Columbus	Open
10 W. Broad St.	10 W. Broad St.	Columbus	Closed
Yukon Building	601 N. High St.	Columbus	Closed

Given these differences, service area coverage for the stores in Table 7 will be generated using Network Analyst with a distance impedance of a half-mile, considering this to be the maximum distance that a typical consumer might travel on foot to purchase from Starbucks.

While demand estimation considered in terms of maximizing accessibility to the general population has the ability to offer much in the way of location intelligence, the competitive nature of the economy encourages many retailers to differentiate themselves from competitors through a unique value platform which will implicitly cater to a specific subset of the population or market segment. This is exemplified in Graff & Ashton's (1994) study of the expansion of Wal-Mart whose value platform strongly guided its location decisions in which it catered to low-income rural locations. In the context of

Starbucks Coffee Company, Lyons (2005) explains that the original value platform guided the brand in positioning itself away from other coffee houses which aspired to appeal to college-aged “bohemian” crowds, resulting in location strategies which sought to capture a market of urban professionals working in areas of dense population. Yet, Buchanan & Simmons (2009) also discuss that by 2007 when Starbucks began to encounter financial trouble, the market had expanded to include younger consumers between the ages of 18 and 24, more people of color, as well as those with lower incomes. The inclusion of geodemographics thereby has the potential to illustrate the areas in which Starbucks core consumers are located by differentiating the study area along descriptive population characteristics. Thrall (2002) suggests that visualizing demographic variation at the scale of the market area is valuable since it may identify potential opportunities as well as potential investment failures. Geodemographic segmentation along five variables – population density, age group, educational attainment, median income, and race – at the Census Tract level is subsequently used to offer an overview of the characteristics of the population residing in the Columbus, OH MSA market area.

A more refined approach to market segmentation will be assessed through the use of Esri’s Tapestry Segmentation, which integrates data from the Census, Esri’s Updated Demographics, Acxiom Corporation’s InfoBase-X consumer database, and consumer surveys, such as the Survey of the American Consumer from GfK MRI, to capture the subtlety and vibrancy of the US marketplace. This segmentation is available through Esri’s Business Analyst Desktop and classifies US neighborhoods into 65 distinct market

segments. Neighborhoods with the most similar characteristics are grouped together, while neighborhoods with divergent characteristics are separated. This system essentially combines the “who” of lifestyle demography with the “where” of local neighborhood geography to create a model of various lifestyle segment profiles to identify distinct behavioral market segments. Summary groups have also been created to facilitate an understanding of the broader trends of the market and include 12 LifeMode Summary Groups based upon lifestyle and life stage and 11 Urbanization Summary Groups based upon geographic and physical features (Esri.com).

While the LifeMode and Urbanization Summary Groups will provide a macro-scale perspective of the general segmentation of the market across the study area, this study identifies those Tapestry Segmentation groups which are among Starbucks’ target consumers to offer more precision in terms of market segmentation and subsequent consumer preferences at a smaller scale. Yet, because the geographic expansion of Starbucks, particularly in the most recent decade, has been accompanied by the inclusion of many consumers outside of the customer base that had once been the primary target in the company’s original value platform, the identification of corresponding Tapestry Segments poses some challenges. Given these circumstances, market segmentation will be assessed in terms of those Tapestry Segments which are most consistent with the target consumers as articulated through Starbucks’ original value platform (Table 8) followed by an assessment which examines the spatiality of those segments to which Starbucks has garnered appeal within recent years (Table 9). These segments are selected based upon the description of the segments’ demographic, socioeconomic, residential,

and preferences as articulated by Esri (Tapestry Segmentation Reference Guide). A comprehensive description of each segment is provided in Appendix A

Table 8. Market segments: original customer base

<b>Tapestry Segment</b>	<b>LifeMode Summary Group</b>	<b>Urbanization Summary Group</b>
Connoisseurs	High Society	Metro Cities I
Enterprising Professionals	Upscale Avenues	Metro Cities I
Laptops and Lattes	Solo Acts	Principal Urban Centers I
Metro Renters	Solo Acts	Principal Urban Centers I
Metropolitans	Metropolis	Metro Cities I
Urban Chic	Upscale Avenues	Metro Cities I
Young and Restless	Solo Acts	Metro Cities II

Source: Tapestry Segmentation Reference Guide

Table 9. Market segments: expanded customer base

<b>Tapestry Segment</b>	<b>LifeMode Summary Group</b>	<b>Urbanization Summary Group</b>
Boomburbs	High Society	Urban Outskirts I
College Towns	Scholars and Patriots	Urban Outskirts II
Cozy and Comfortable	Upscale Avenues	Suburban Periphery II
Dorms to Diplomas	Scholars and Patriots	Metro Cities II
Exurbanites	High Society	Suburban Periphery I
In Style	Upscale Avenues	Suburban Periphery I
Old and Newcomers	Solo Acts	Metro Cities II
Prosperous Empty Nesters	Senior Styles	Suburban Periphery I
Silver and Gold	Senior Styles	Suburban Periphery I
Sophisticated Squires	High Society	Suburban Periphery I
Suburban Splendor	High Society	Suburban Periphery I
Up and Coming Families	Family Portrait	Suburban Periphery I

Source: Tapestry Segmentation Guide

### 3.4 Qualitative Methods

Though a great deal of location intelligence may be garnered through the spatial analytical methods carried out within GIS, much research advises that location decisions not be made in the absence of an in-person assessment of additional marketing variables (e.g. Applebaum 1966; Goodchild 1984; Thrall 2002). As such, the next phase of this research includes a qualitative assessment of select outlets to evaluate how the functional attributes of the retail atmosphere conspire to create a unique sense of place that attracts consumers and optimizes store performance. To offer a comparative assessment of the impact that qualitative factors have on performance, in-person observations will be conducted at the sites of three currently operating Starbucks outlets in the study area (Table 10) and at the sites of three outlets which have been closed since 2008 (Table 11).

Table 10. Observation sites: open outlets

<b>Store Name</b>	<b>Address</b>	<b>City</b>
German Village	650 S. 3 <sup>rd</sup> St.	Columbus
Ohio State University	1784 N. High St.	Columbus
Lewis Center	21 Neverland Dr.	Lewis Center

Table 11. Observation sites: closed outlets

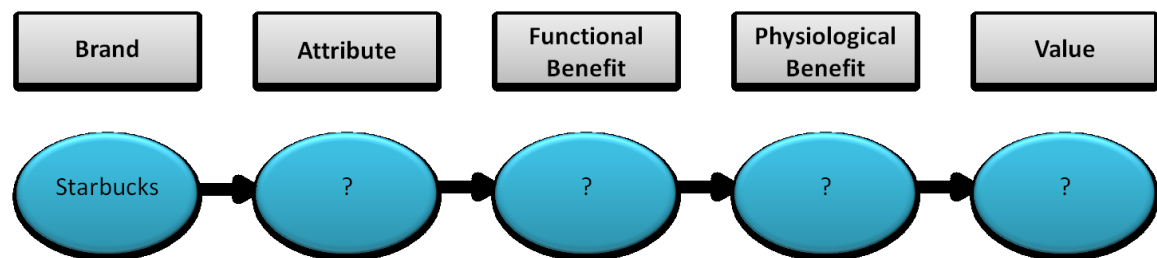
<b>Store Name</b>	<b>Address</b>	<b>City</b>
1505 Fifth Ave.	1505 W. Fifth Ave.	Columbus
Yukon Building	601 N. High St.	Columbus
Maxtown	925 N. State St.	Westerville

These stores have been selected to represent a cross section of the store network, highlighting the range of spatial contexts in which outlets within the MSA are located. The checklist in Table 5 will serve as a guide in these observations. Though the internal retail atmosphere is obviously unable to be observed at closed outlets, the elements of the checklist indicative of the outlet's situational context will nonetheless facilitate a discussion which may offer insight regarding the role of the site's physical context in store performance.

Moreover, since the demographic characteristics analyzed in previous stages of this research have been proven to often have spurious correlation with consumer behaviors, a convenience sample of Starbucks consumers will be selected for interviews which attempt to provide a fuller understanding of the unifying values which motivate purchases at Starbucks from various segments of the population. These interviews will be conducted in the manner of a means-end chain analysis through laddering techniques which attempt to connect the functional benefits of various attributes offered by Starbucks products with the core values motivating purchase decisions (Figure 2). Laddering is an in-depth, one-on-one interviewing technique used to develop an understanding of how consumers translate the attributes of products or brands into meaningful associations with personal values. The interviews are tailored using a series of direct probes, typified by questions of "Why is that important to you?", in order to determine the sets of linkages between attributes (A), consequences (C), and values (V). These ladders, referred to as perceptual orientations, represent the basis for distinguishing between products or brands in a given class, providing an understanding on how they are

processed from a motivational perspective through revealing the underlying reasons regarding the importance of particular attributes and consequences. Typically, a summary table of connections between elements may be constructed graphically in a tree diagram, termed a hierarchical value map (HVM), though it is beyond the scope of this study to include a detailed construction of such a map. Rather, the resulting values will be synthesized in a discussion as they relate more broadly to the sample of value system segmentations that have been a part of consumer research mentioned in Chapter 2.1.3. These connections may be then used to further inform the market segmentation used in this study, thereby allowing for the triangulation of knowledge between quantitative and qualitative methods in a recursive process, similar to recent qualitative GIS applications, as new knowledge is generated.

Figure 2. Structure of means-end chain analysis



These same consumers will subsequently be asked questions regarding Starbucks' perceived brand personality in order to understand the consistency between the brand and lifestyle segment profiles. This portion of the interview will rely on projective testing which is commonly used to reveal respondents' deepest feelings by having them project

those feelings into an unstructured situation (McDaniel & Gates 2012). Personification will be used to draw comparisons between the brand and a person. An example might be to ask, “Think about the Starbucks brand, and imagine it were a person. Who would this brand be? How would you describe this person? What personality characteristics would this person have? In what ways do you associate this person with the brand?” Sentence completion tests will offer more opportunity for respondents to describe the brand in their own words. Finally, analogies will be used to ask respondents to draw comparisons between other retail brands and competitors and explain their reasoning in the answers they provide. The full script which will guide the interviews is provided in Appendix B. Results have the potential to further inform market segment strategies while enlightening the relative successes or failures of Starbucks’s outlets in different submarkets within the study area.

#### *Social Media and Big Data*

Following the application of the previous methods, this study concludes with an exploration of using location-based social media applications in generating market intelligence that may be useful in the development of location strategies in the context of retailing. Foursquare is utilized as a data source illustrative of a location-based social media application from which the number of check-ins within the Columbus, OH MSA study area will be extracted to provide an alternative spatial perspective which illuminates a trajectory of activity patterns, rather than exclusively relying on an analysis limited to data representative of consumers’ residential locations. These findings will be situated in a discussion supported by recent research which discusses extending the use of



location-based social media data to examine how it may also inform a platial perspective along with the subsequent implications the big data trend may have in the ability of retailers to garner market intelligence which may refine their location strategies in the future.

## Chapter 4: Geographical Analysis of Starbucks' Location Strategy

Before proceeding in an assessment of how the configuration of the store network has been planned and developed in the study area and had subsequent implications in outlet performance, a visualization of the distribution of outlets in the study area (Figure 3) illustrates some distinct trends, particularly compared to the distribution of area competitors (Figure 4). The Fiscal 2011 Annual Report (2012) articulates that the company's direct competitors are considered to be large US quick-service restaurants as well as specialty coffee shops. Figure 4 illustrates the particular competitive retailers who have a major market presence in the study area. Those Starbucks outlets that have closed since 2008 in the study area are listed in Table 12.

Figure 3. Starbucks store network

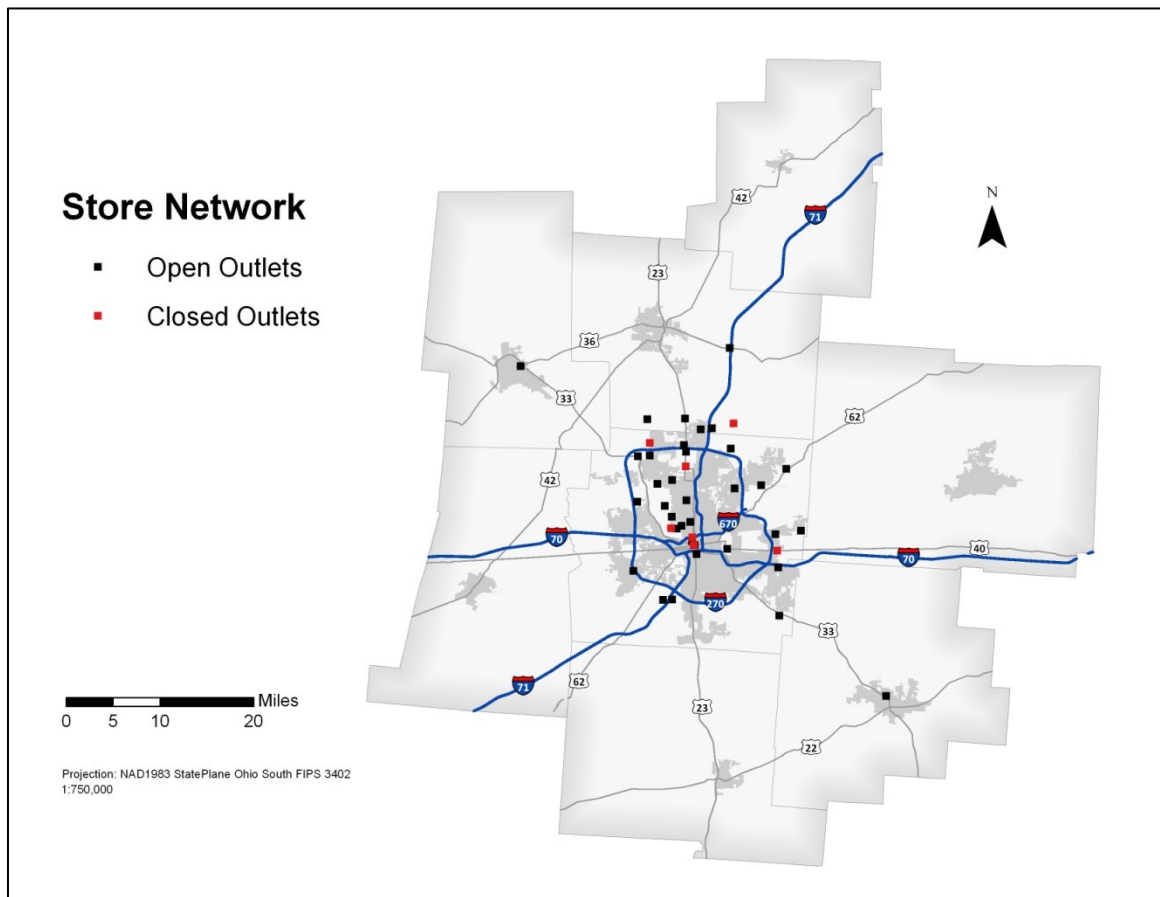


Figure 4. Major competitors

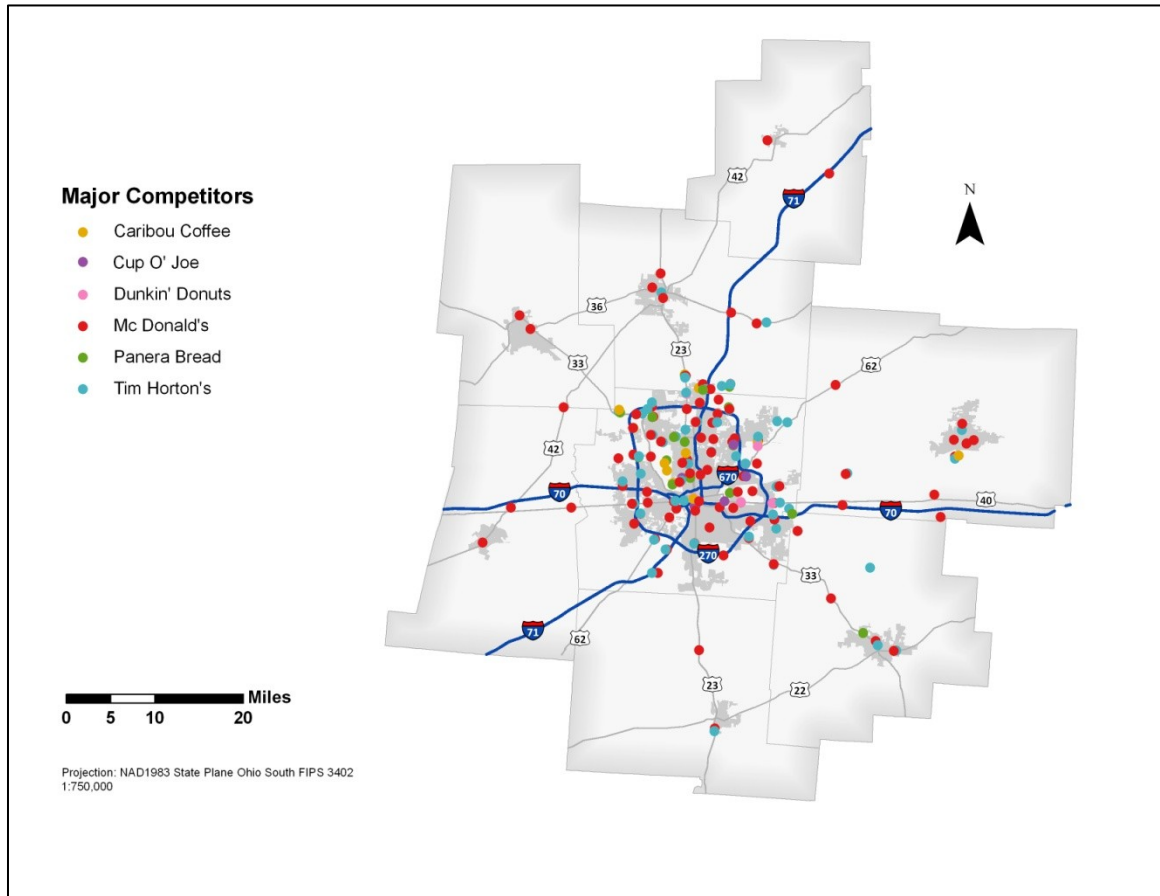


Table 12. Store closures in study area

Store Name	Address	City
10 W. Broad St.	10 W. Broad St. # 120	Columbus
1505 Fifth Ave.	1505 W. Fifth Ave.	Columbus
Yukon Building	601 N. High St.	Columbus
Reynoldsburg	6144 E. Main St.	Columbus
Dublin, Sawmill & Hard	7561 Sawmill Rd.	Dublin
Maxtown	925 N. State St.	Westerville
High St.	530 N. High St.	Worthington

Source: Starbucks.com

This obvious concentration of both Starbucks and competitor outlets within or near the I-270 urban loop suggests this area has the most recognizable market opportunity among all retailers, but the unique restriction of Starbucks to this area may suggest these areas are representative of more distinct geodemographic market segments targeted by the company. All but three currently operating free-standing Starbucks outlets are within a 5-mile radial distance of the urban loop, with the only exceptions being locations in Lancaster, Marysville, and Sunbury off of I-71. By contrast, McDonald's for instance, which has become recognized as a legitimate competitor in recent years through its McCafe offerings, has established a presence in every county in the study area. Tim Horton's, a regional specialty coffee retailer, also has a number of outlets which extend beyond Franklin County and the urban loop. The penetration of these direct competitors into markets in which Starbucks has not yet established market presence might seem to suggest the retailer is failing to capture a large portion of the specialty coffee market. The subsequent analysis will address this potential concern by seeking to better understand how both the geographic concepts of space and place have motivated Starbucks' location decisions while offering intelligence that may be used to suggest opportunities for future growth of the store network in a manner that is consistent with the company's value platform.

#### **4.1 Quantitative Methods: Results**

By illustrating the population densities according to the 2000 Census across the study area (Figure 5), the preference for centrally located retail sites within or in proximity to

the Interstate 270 urban loop becomes evident, suggesting development decisions may have largely been influenced virtue of sheer population size as well as the accessibility which the transit infrastructure offered by interstate highways facilitates (see Figure 6). Though areas of moderate density are present in smaller urbanized areas including Lancaster, Newark, and Delaware, these are isolated from the majority of the population in the study area and removed from the major interstates which undoubtedly facilitate accessibility. Accordingly, this study will continue to use GIS to examine the characteristics of the entire study area, but will also focus in on the Franklin County region in which the highest concentration of stores are located to offer a perspective which may elucidate local variations which have had implications in location decisions and store performance.

Figure 5. Population density, MSA

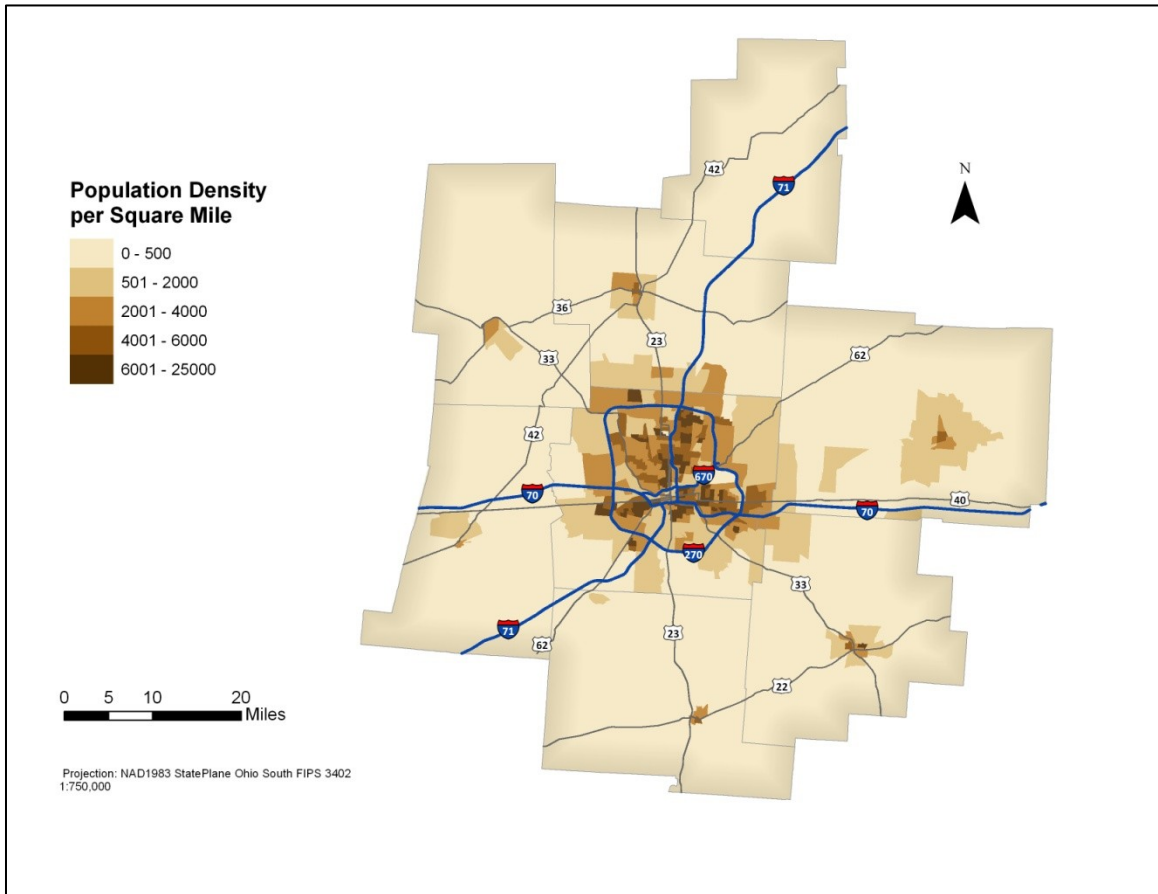
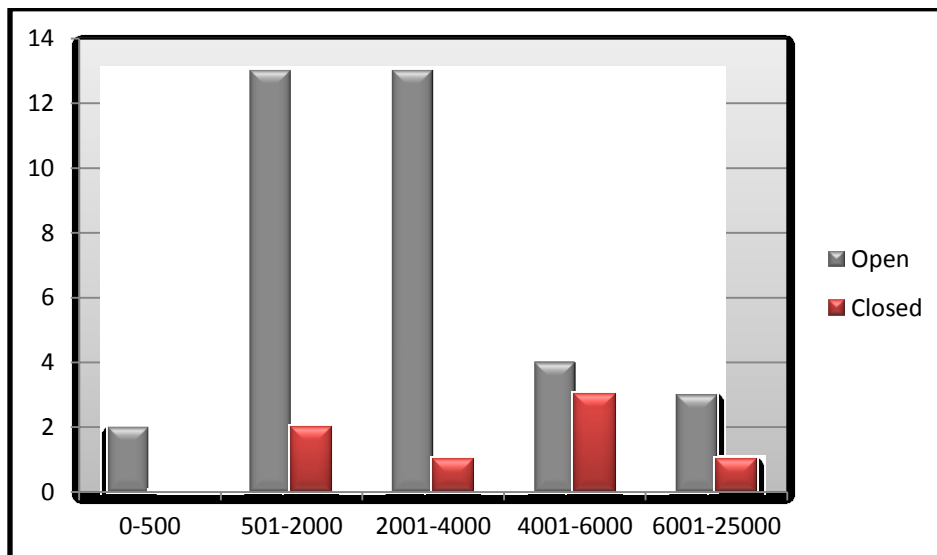
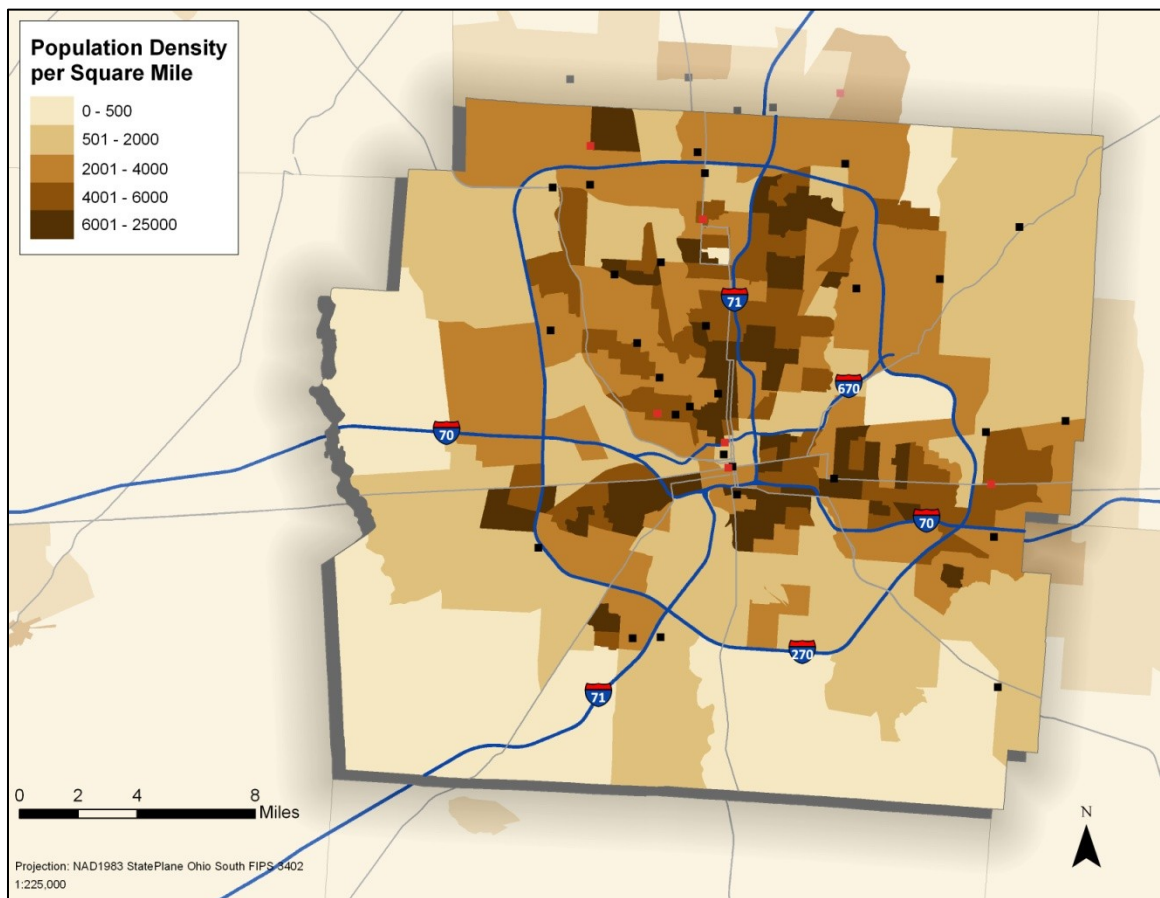


Figure 6. Distribution of outlets by population density



A closer perspective of the manner in which outlets have been located in proximity to population densities is illustrated in Figure 7. The company's absence from areas of Franklin County with the highest population densities overall, particularly to the east of I-71 and in southwestern portions of the City of Columbus, leaves room for question, especially in the face of a high concentration of stores to the west of I-71 and along the northern perimeter of the I-270 urban loop.

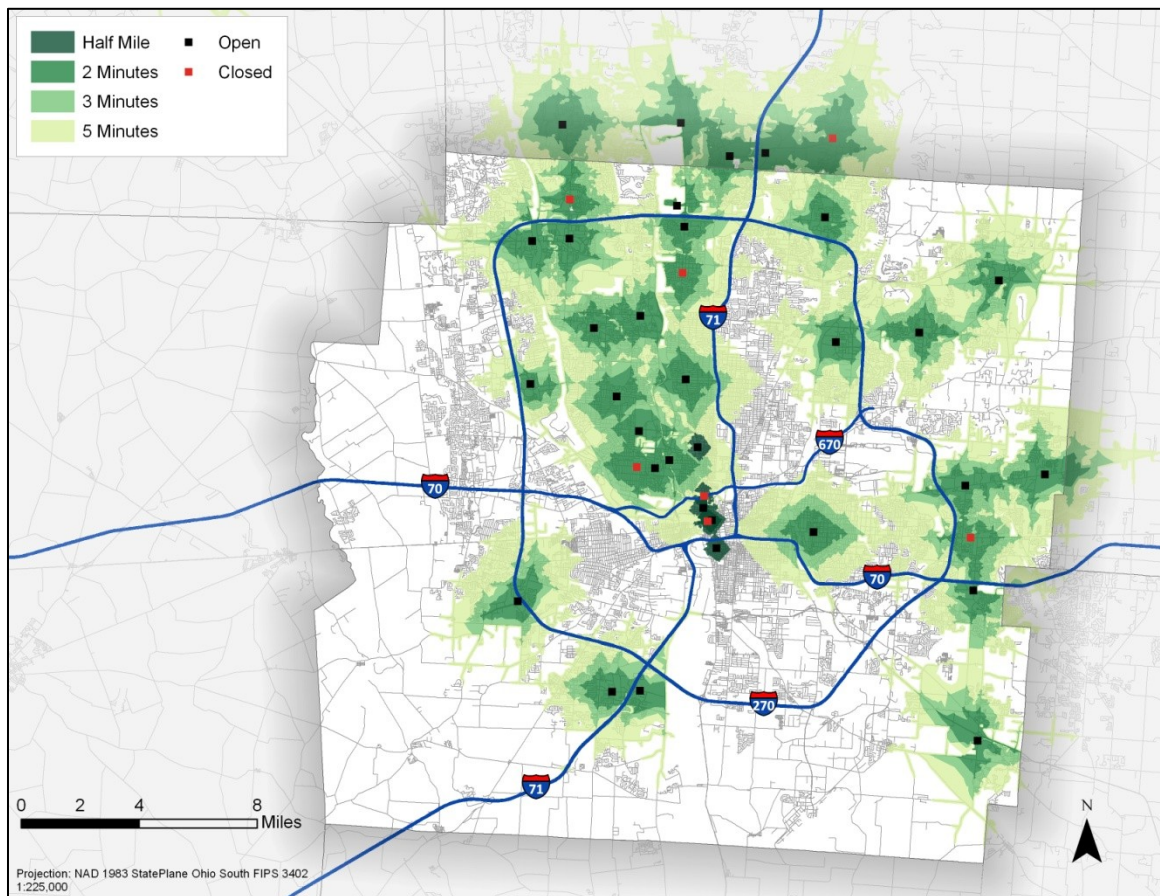
Figure 7. Population density, Franklin County





Some of the uncertainty in this pattern may be explained if these areas of high population density are actually located within the service areas of existing outlets. Drawing on the applications in service area analysis conducted by other quick service restaurants, such as Arby's (see Sherwood 1995), who are also retailers of similarly low-motivation product categories, the service areas of the company operated Starbucks outlets in the study area have been defined using 5-minute drive-times implemented through Network Analyst (Figure 8). Franklin County is highlighted since the store network within the study area is primarily concentrated in this high population density area.

Figure 8. Former network coverage



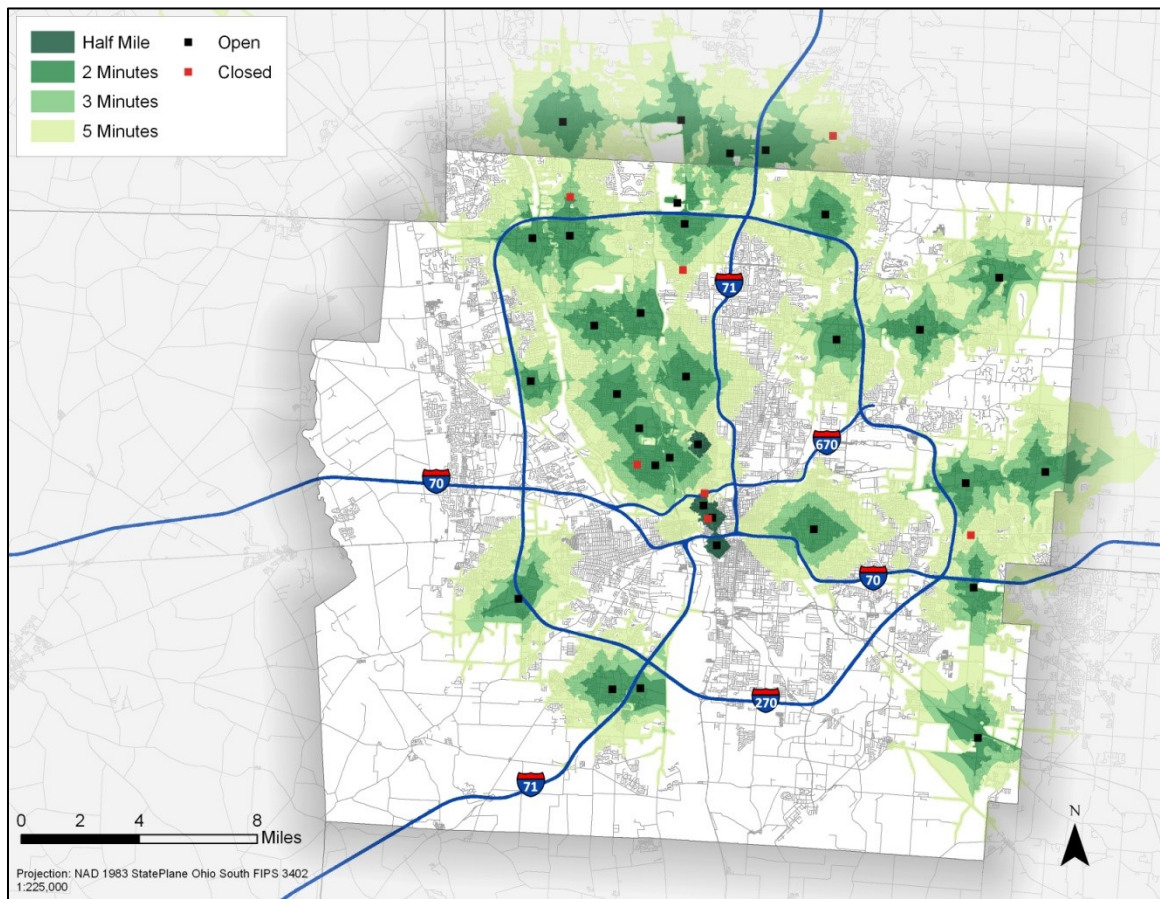
Even prior to any store closures, an obvious lack in service coverage of the store network is evident for much of eastern Columbus as well as in parts of the southwest, despite the degree of population density present in both areas.

Yet, regardless of the presence of areas for apparent market opportunity, a declining brand image and economic crisis conspired to produce unfavorable conditions for further expansion, and ultimately necessitated the need for over 700 store closures nationwide (Buchanan & Simmons 2009; Honack 2009; Koehn, Besharov & Miller 2008). Under the tenets of a location-allocation model, 767,270 residents, or 42.3% of the study area, were located within the boundaries of one of the outlet trade areas and can thereby be presumed to have been served by this former store network. By contrast, 748,358 residents can be assumed to be served by the store network, 41.3% of the study area, as it is operating at present, representing a loss of 17,912 (Figure 9). While this is only a 1% loss of the total study area population, a greater number of residents were no longer located within a 2- or 3- minute drive from an outlet, thereby mediating the convenience factor on which Starbucks has identified as a critical element in consumer's decision making processes between competitors (Fiscal 2011 Annual Report). Table 13 examines the differences in coverage between the two network configurations.

Table 13. Difference in network coverage of store networks

Drive-Time	Former	Current	Difference
5 Minutes	767,270	749,358	17,912
3 Minutes	363,317	325,871	37,446
2 Minutes	178,836	135,373	42,463

Figure 9. Current network coverage

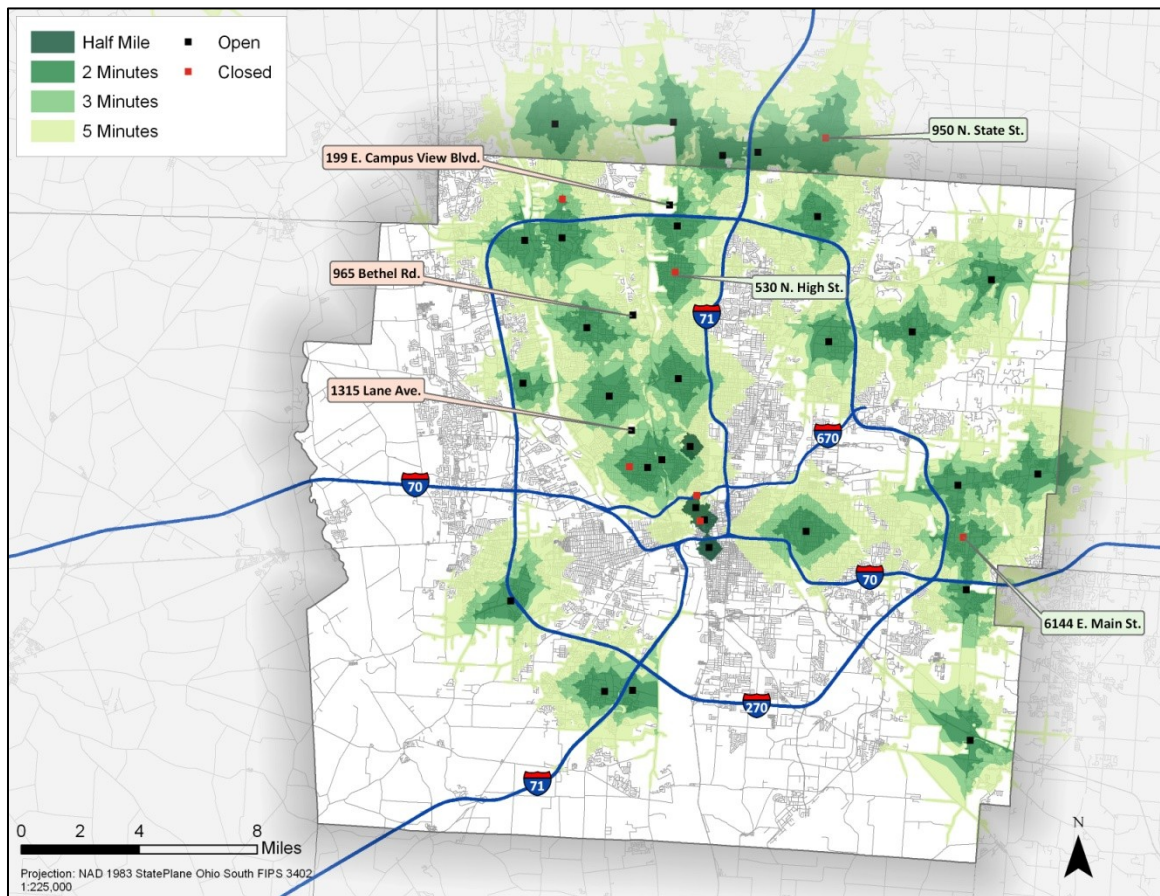


At this critical juncture, the company ideally would have attempted to retain maximum coverage of the study area by maintaining accessibility to the areas of highest population densities, and prevent potential revenues from capture by area competitors. As Ghosh and McLafferty (1987) suggest, a maximal-covering location (MCL) model (see chapter 3 for details) may therefore prove to be a useful tool when faced with the decision to close a select number of existing outlets. Indeed, an implementation of the MCL in the context of this research suggests that Starbucks could have selected store closures in a manner that would have retained the same coverage in terms of total population served by the store



network prior to any outlet closures after 2008. This alternative network configuration (Figure 10), which indicates three currently operating outlets that if closed in place of three formerly operating outlets, would have maintained the same population coverage in terms of the 5-minute drive-time service areas.

Figure 10. Alternate network coverage



Despite the differences between the MCL model and the actual current store network, the company has nevertheless failed to establish outlets and create a presence in particular subareas of the market, notably eastern and southwestern portions of the City

of Columbus as well as the areas beyond the I-270 urban loop. Yet, direct competitors have established presence throughout the entire market area. An analysis of some of the geodemographic trends across the region might reveal whether or not these areas do indeed present market opportunity for Starbucks, or if the present store network locations are illustrative of strategic targeting to specific segments of the population. Moreover, variations in descriptive characteristics of consumers could potentially explain the decision making process that was behind the closure of stores within the network.

Lyons (2005) discusses how the Starbucks Coffee Company initially sought to position its brand away from the bohemian college coffeehouse atmosphere by locating in densely populated financial districts and catering to business professionals by offering a high quality product, friendly service, and convenience. As such, Starbucks' consumers are likely to be established in their career and subsequently of a mature age. Thus, median age is just one variable which might have implications in the location decisions in outlet planning and subsequent performance. While Figure 11 shows an area of the City of Columbus to the east of I-71 which is all of a younger age and therefore should not be considered to represent target segments, there are also many areas along the northern and western perimeter of I-270 in which the median age is under 35 but contain a number of Starbucks outlets (see Figure 12). Yet, these same areas are also adjacent to areas with some of the oldest residents in terms of median age and perhaps offer a better geographical opportunity for outlets due to proximity to the target consumer (Figure 13).

Figure 11. Median age, MSA

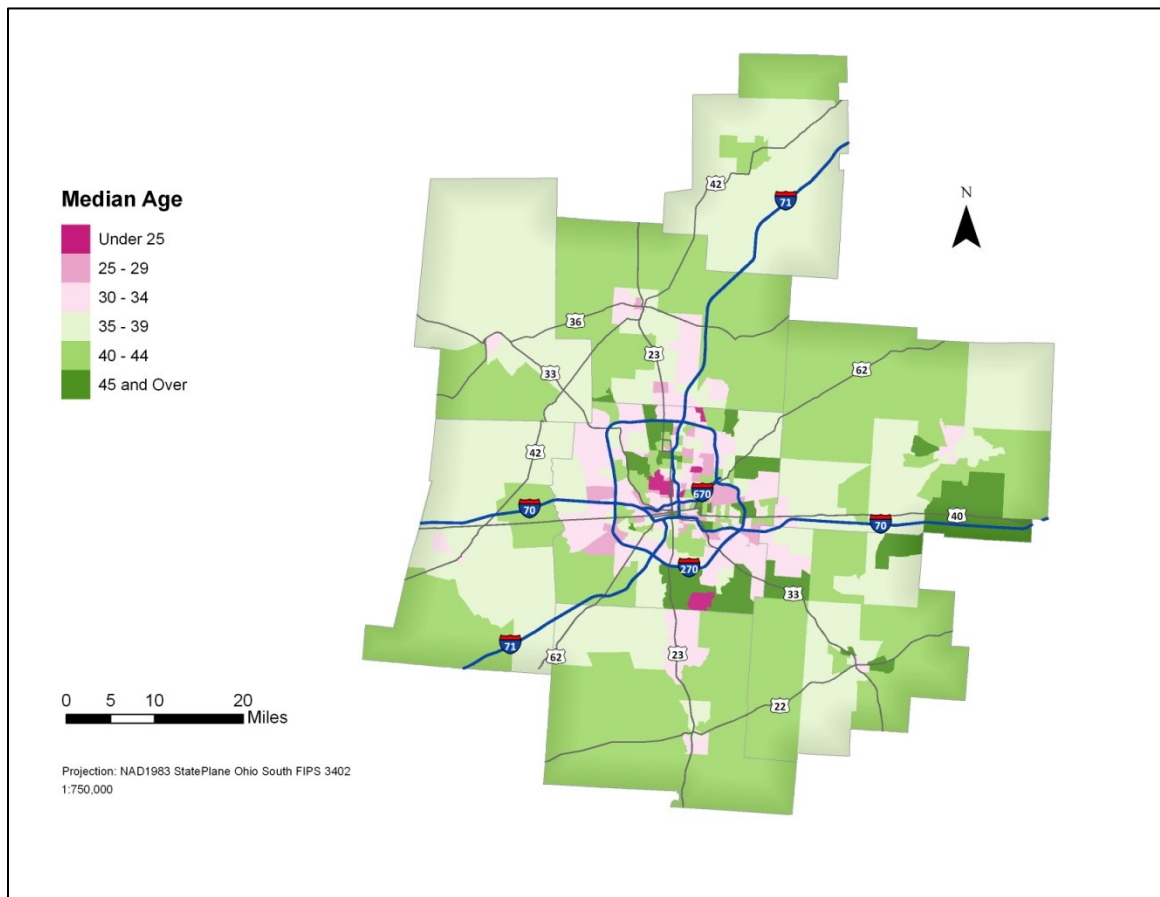


Figure 12. Distribution of outlets by median age

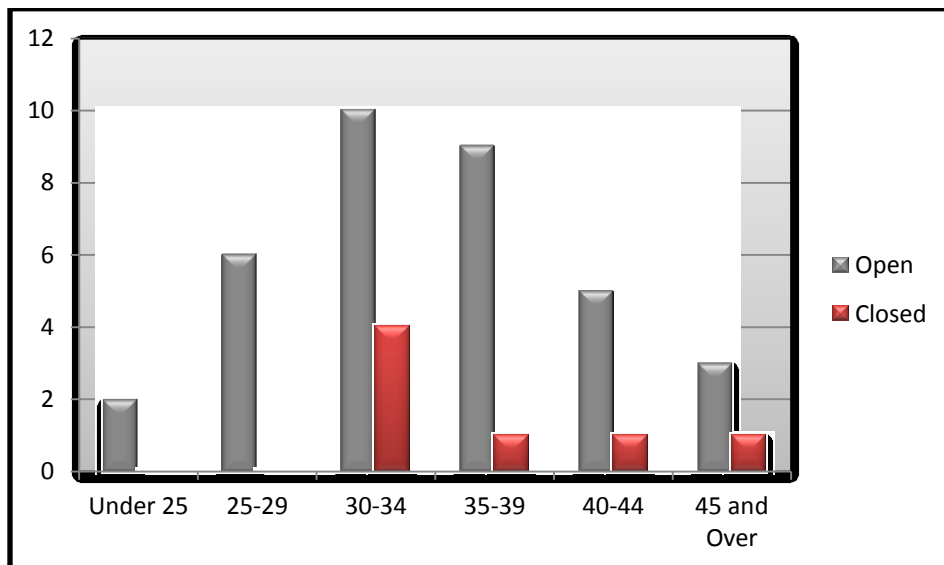
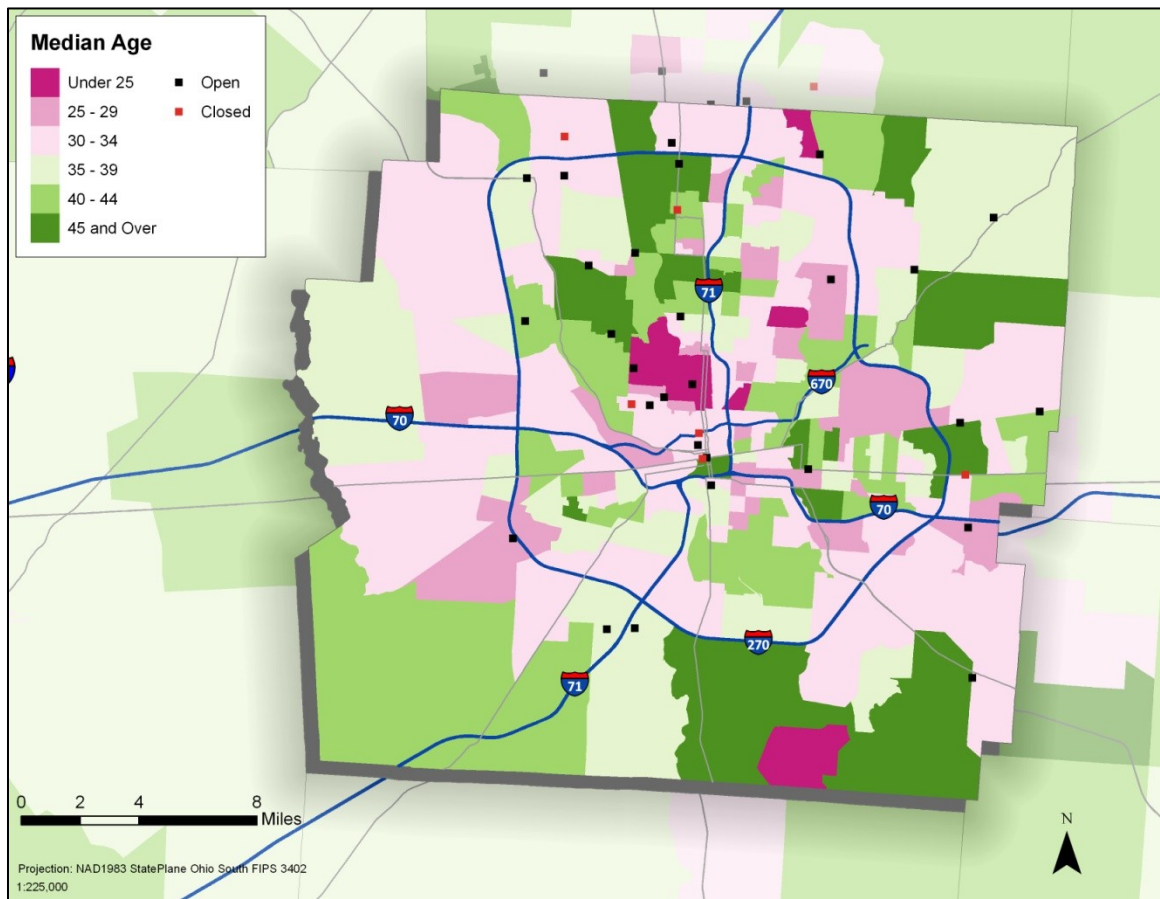


Figure 13. Median age, Franklin County



Those in the professional & managerial occupations whom represent Starbucks' ideal consumer may also be identified in terms of median household income, differentiating these individuals from those working in service or manufacturing occupations. Under these terms, the largest market opportunity is actually beyond the City of Columbus to the north of I-270 in Dublin and Delaware County and also in the New Albany and Reynoldsburg areas (Figure 14). Figure 15 shows how most outlets have been located in areas in which the median household income is above \$50,000 annually. Yet, a significant cluster of stores is located in downtown Columbus and in the area surrounding

the Ohio State University campus where median incomes are all below \$50,000 (Figure 16). Still, the closure of three outlets in these same areas suggests that these locations may have attracted those individuals for whom Starbucks became an affordable luxury as the store expanded its coverage. This pattern may be indicative of Buchanan & Simmons (2009) suggestion that sales declined as consumers with less disposable income began to make necessary cutbacks during the recession.

Figure 14. Median household income, MSA

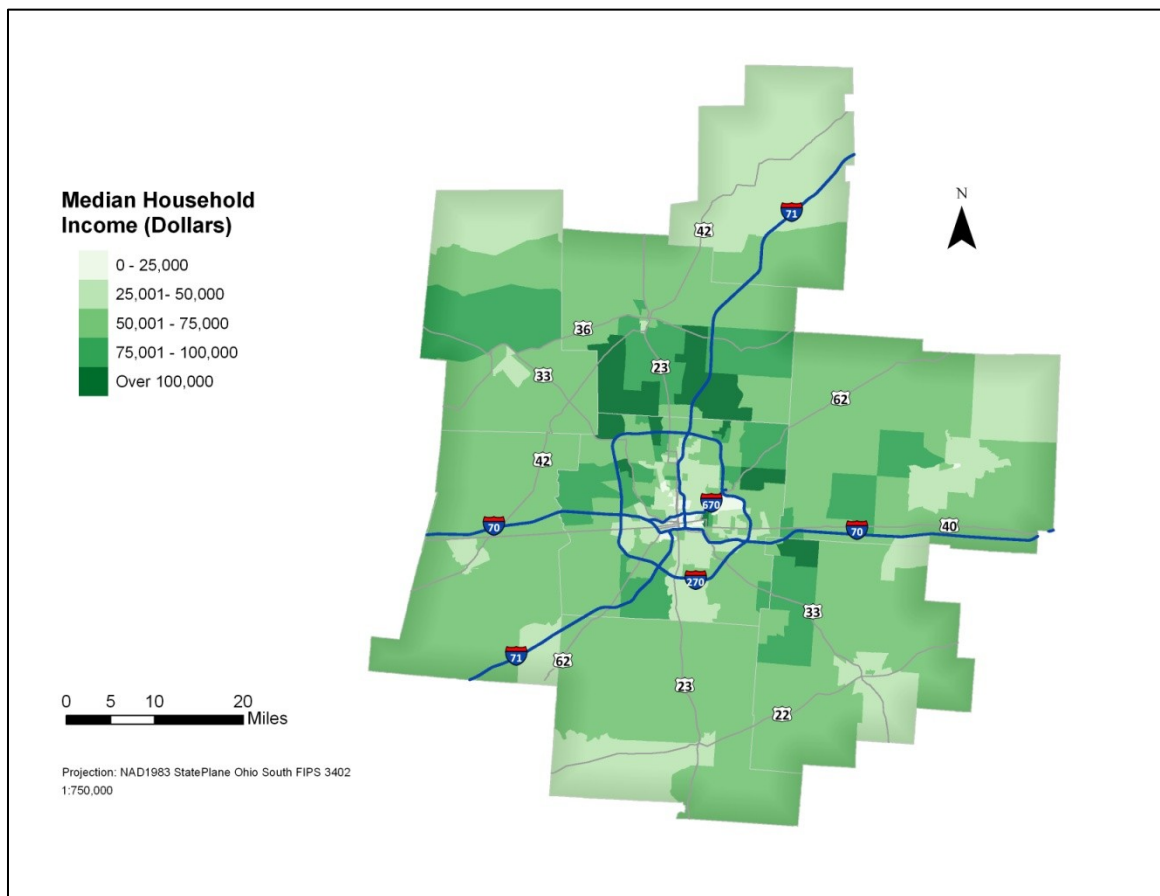




Figure 15. Distribution of outlets by median household income

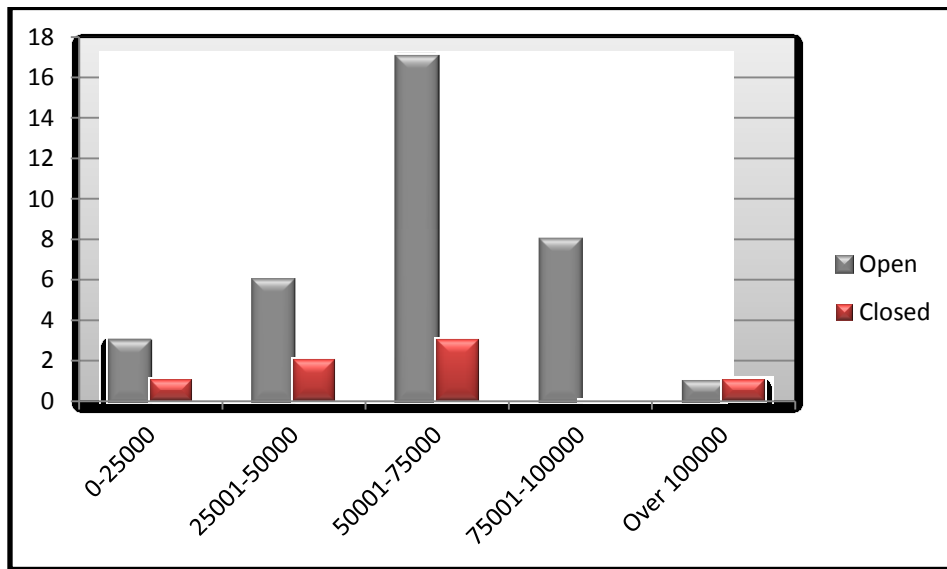
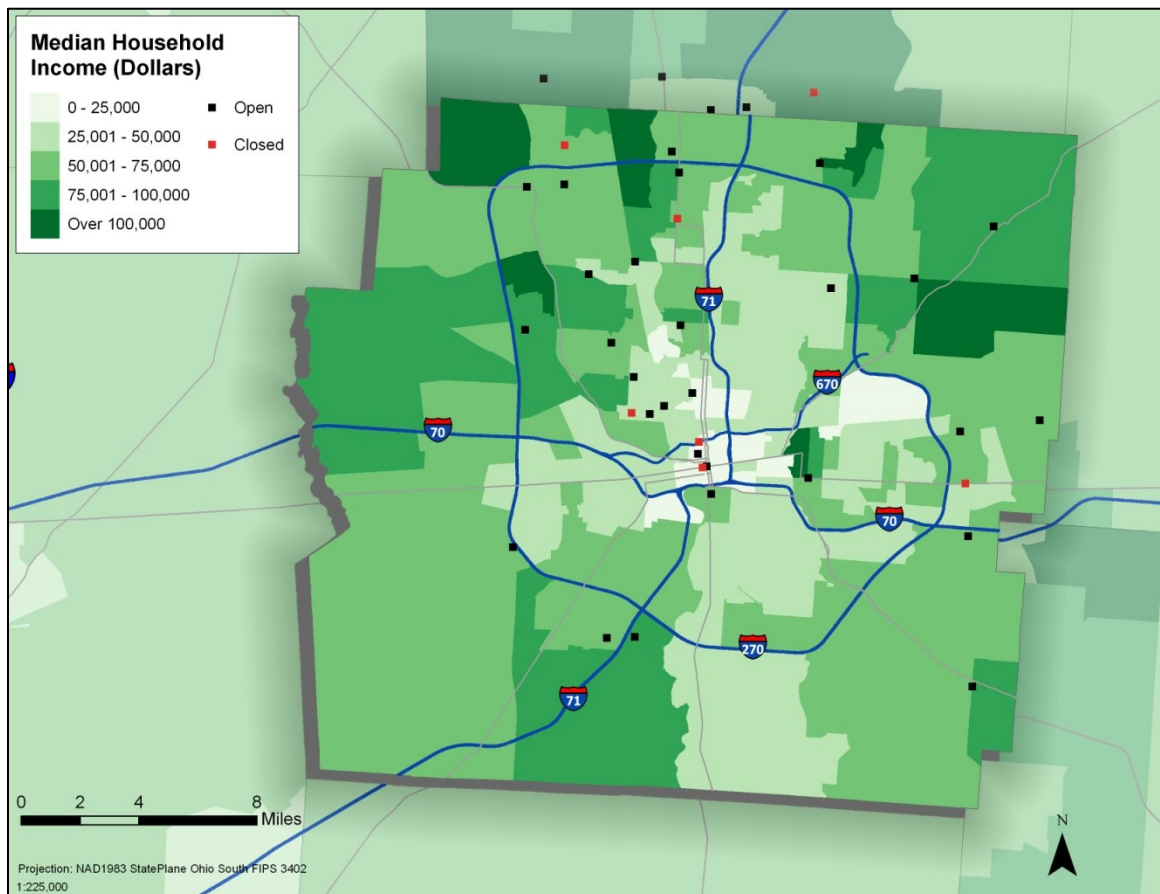


Figure 16. Median household income, Franklin County



A visualization of the distribution of nonwhite populations (Figure 17) illustrates perhaps a more obvious relationship in the configuration of the store network. Those areas of the City of Columbus to the east of I-71 in which Starbucks has never established market presence are home to some of the highest concentrations of racial minorities in the study area. Figure 18 communicates more clearly the remarkable association between outlet location and nonwhite residents. A closer examination of Franklin County (Figure 19) reveals how the store network is situated with regard to racial minorities. Only one outlet, Easton Station which largely serves a daytime population of shopping traffic, is located in a tract in which the resident population is more than 79% nonwhite. With just a few exceptions in the downtown area and parts of eastern Franklin County, most outlets are located in tracts with the lowest percentages of the nonwhite population across the study area.

Figure 17. Nonwhite population, MSA

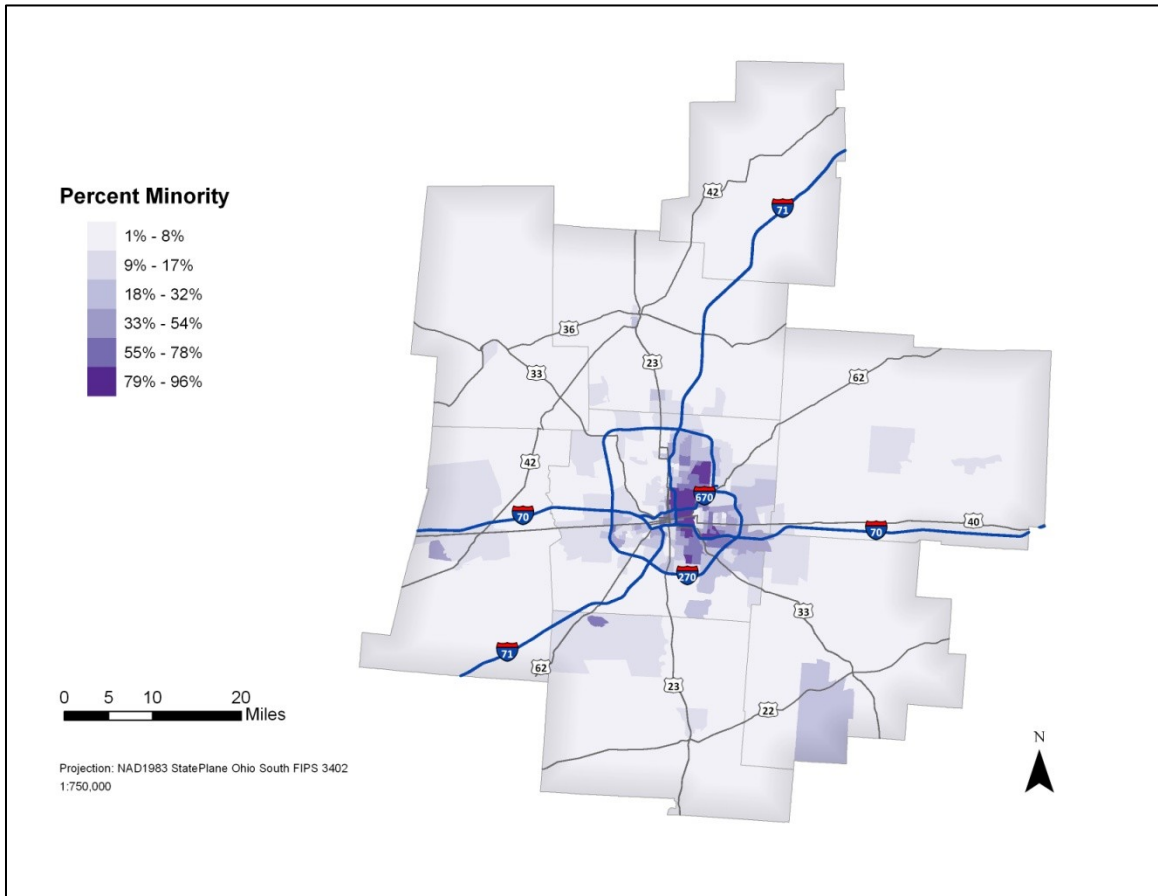


Figure 18. Distribution of outlets by nonwhite population

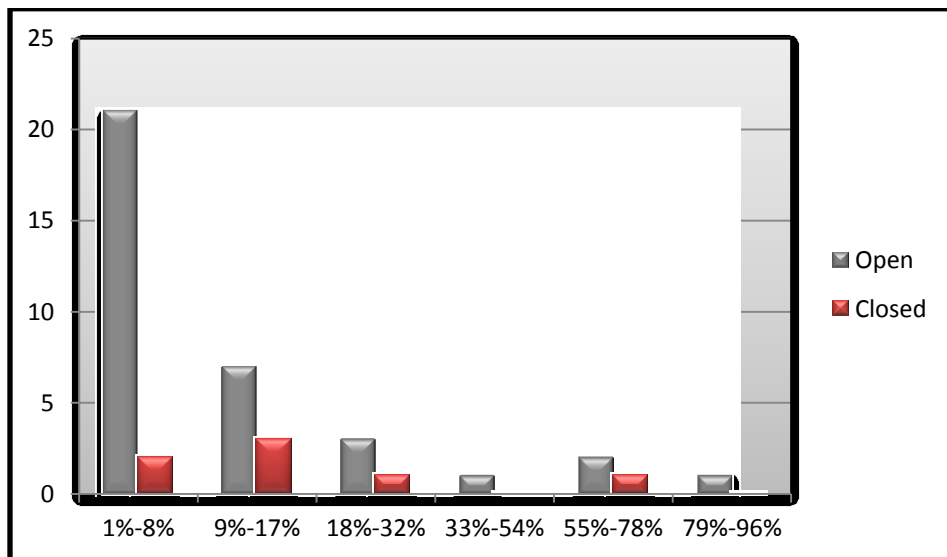
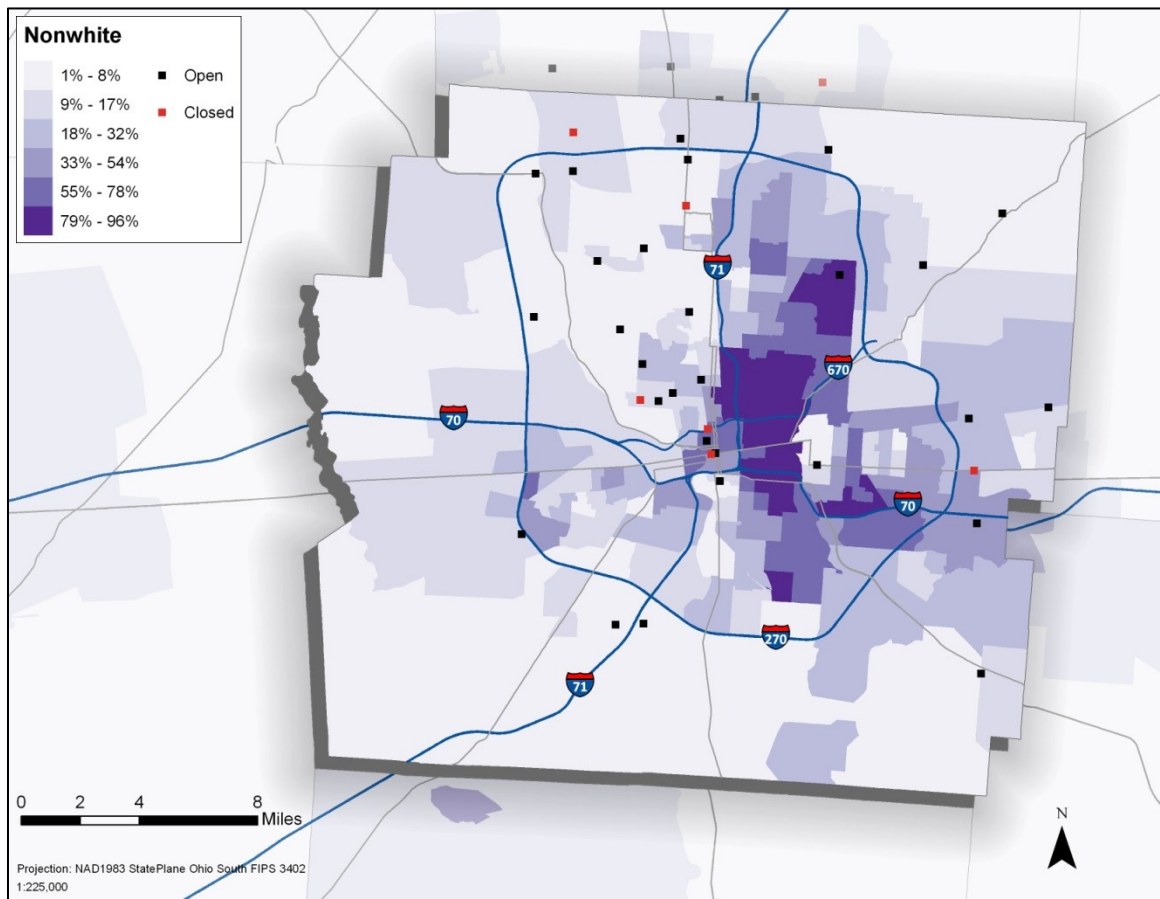


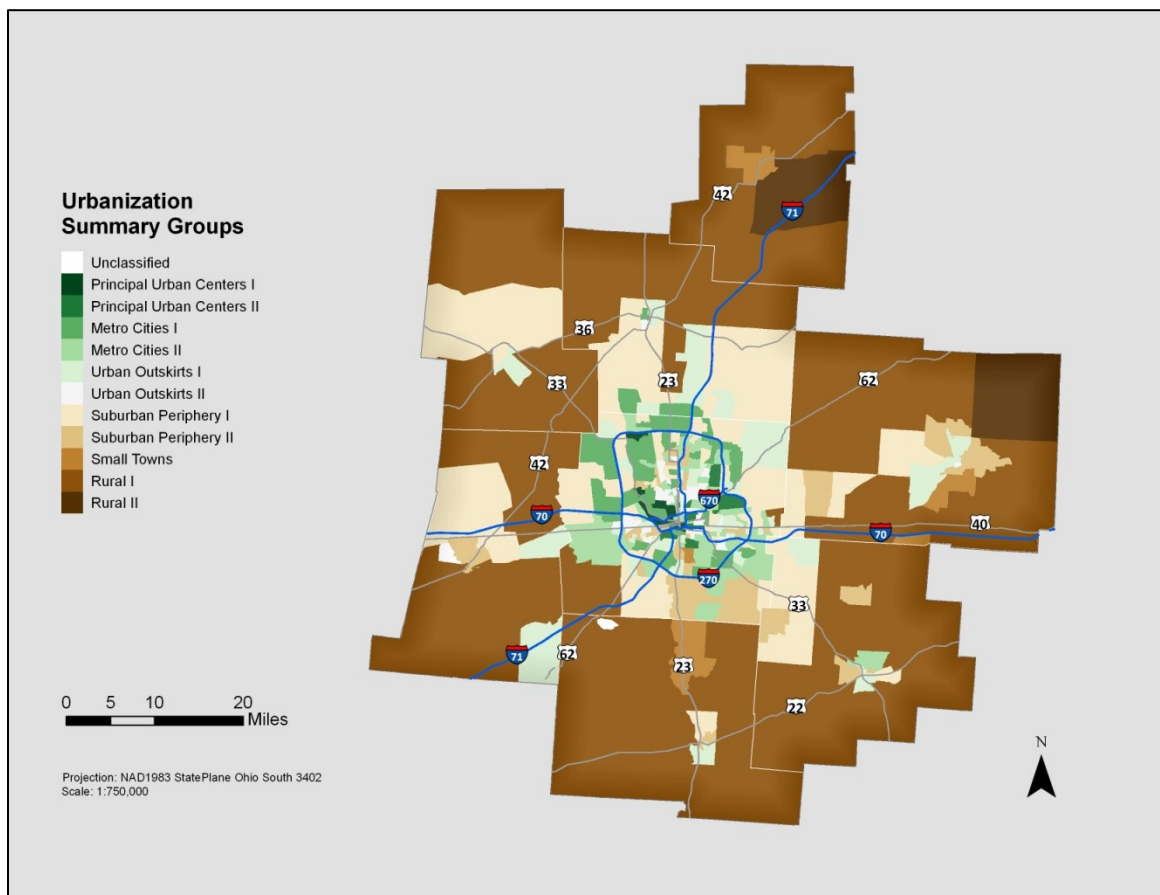
Figure 19. Percent minority, Franklin County



Exploring the implications of geodemographics through an approach which isolates population characteristics such as age, income, and race may suggest much in terms of market opportunity and potential store performance. However, understanding how demographic and geographic variables conspire to create distinct market segments, which group individuals by similar tastes, lifestyles, and behaviors, provides a means of assessment that offers further insights to developing the intelligence regarding the factors which have critical implications for a retail outlet's performance in a particular location. Esri's Tapestry Segmentation provides multiple avenues for examining market

segmentation trends. First, the Urbanization Summary Groups highlight geographic and physical dimensions of the study area, including population density, size of city, location in or outside a metropolitan area, and whether or not it is part of the economic and social center of the metropolitan area. For example, the Principal Urban Centers and Metro Centers are more densely populated than the other summary groups. The “I” or “II” indicates degree of affluence, with “I” being a more affluent segment of the population (Figure 20).

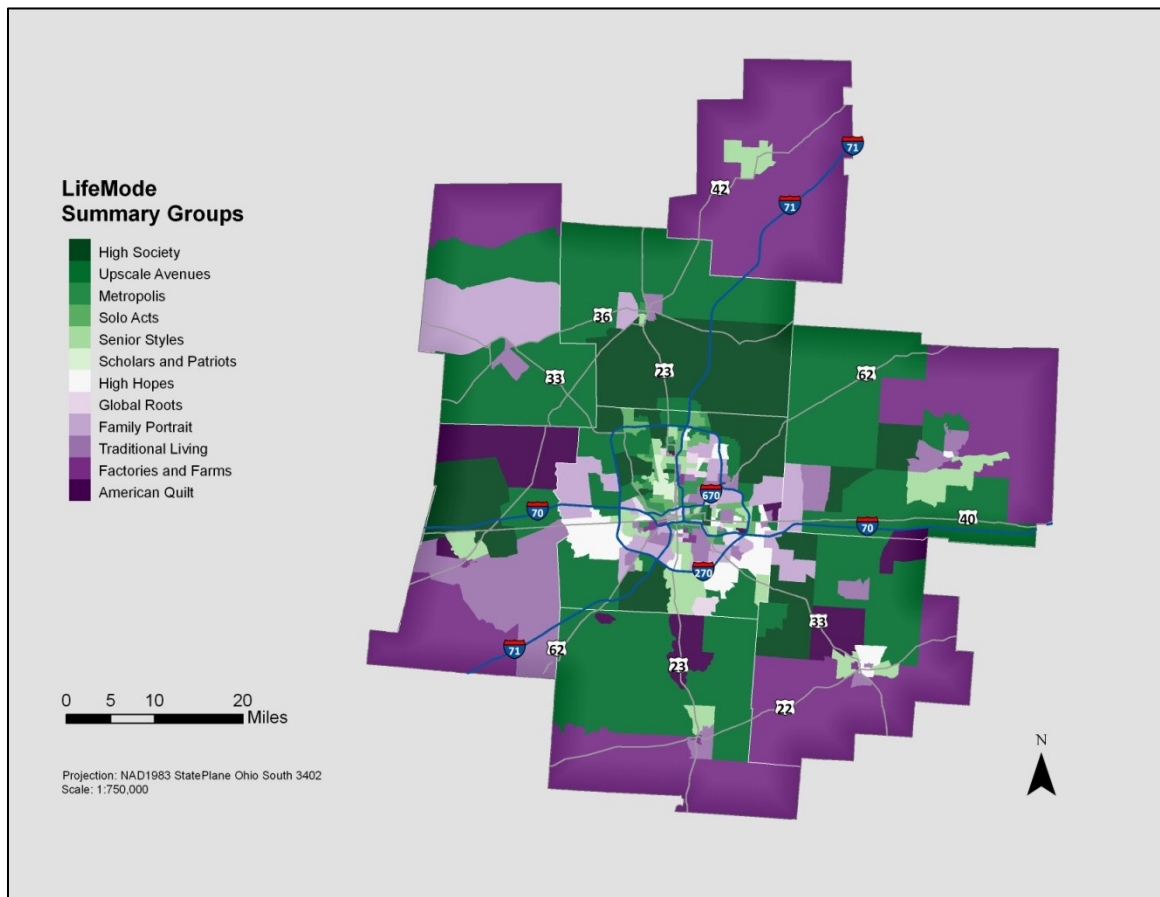
Figure 20. Urbanization summary groups



This approach to market segmentation seems to have serious implications in the development of Starbucks store network within the study area, with many of the outlets clustered in the more densely populated Urban Centers and Metro Cities as well as the more affluent Urban Outskirts and Suburban Periphery. By contrast, no stores have been developed in the Small Towns or Rural areas.

An alternative view of the market area may be provided through Tapestry's LifeMode Summary Groups, which combine lifestyle and life stage composition (Figure 21). High Society, for example contains the most affluent market segments, while Senior Styles include a high presence of senior citizens. LifeMode Summary Groups distinguish, perhaps, to a greater degree the internal variation in population characteristics within Franklin County which has resulted in a divide in the concentration of stores along the western and northern perimeter of the urban loop as opposed to large areas of the eastern and southern areas of the county. Yet, the most affluent segments, within High Society, are not necessarily those areas with the most individual outlets. This may be indicative of the difficulty in accounting for the differences in the locations of daytime versus evening populations discussed by a number of scholars (e.g. Kwan 1999; O'Kelly 2009), since many suburban residents in "bedroom communities" are likely to commute to other areas for work and activities outside of the home and may consequently make purchases at locations that are further removed from their residence but convenient from the perspective of one's activity path.

Figure 21. LifeMode summary groups



Despite the trends evident in the Urbanization and LifeMode Summary Groups, the 65 individual market segments developed by Esri provide much more differentiating power between consumers. An examination of those segments identified as representing the target consumers of Starbucks provides a greater degree of precision in understanding the location decisions of the company and may also serve as a potential indicator of store performance. While the lifestyle segments representative of Starbucks' conventional consumers are concentrated in the areas in which the store network is largely concentrated, along the northern and western perimeter of I-270 in municipalities

including Grandview Heights, Upper Arlington, Hilliard, Dublin, Westerville, as well as part of northern Columbus (Figure 22), five of the seven total store closures are also located in census tracts representing these same segments (Figure 23). The underperformance of outlets in these areas may suggest a number of factors, such as cannibalization of sales from nearby outlets, changing market tastes, or elements of space and place which are not transparent at this scale.

Figure 22. Target segments: original customer base

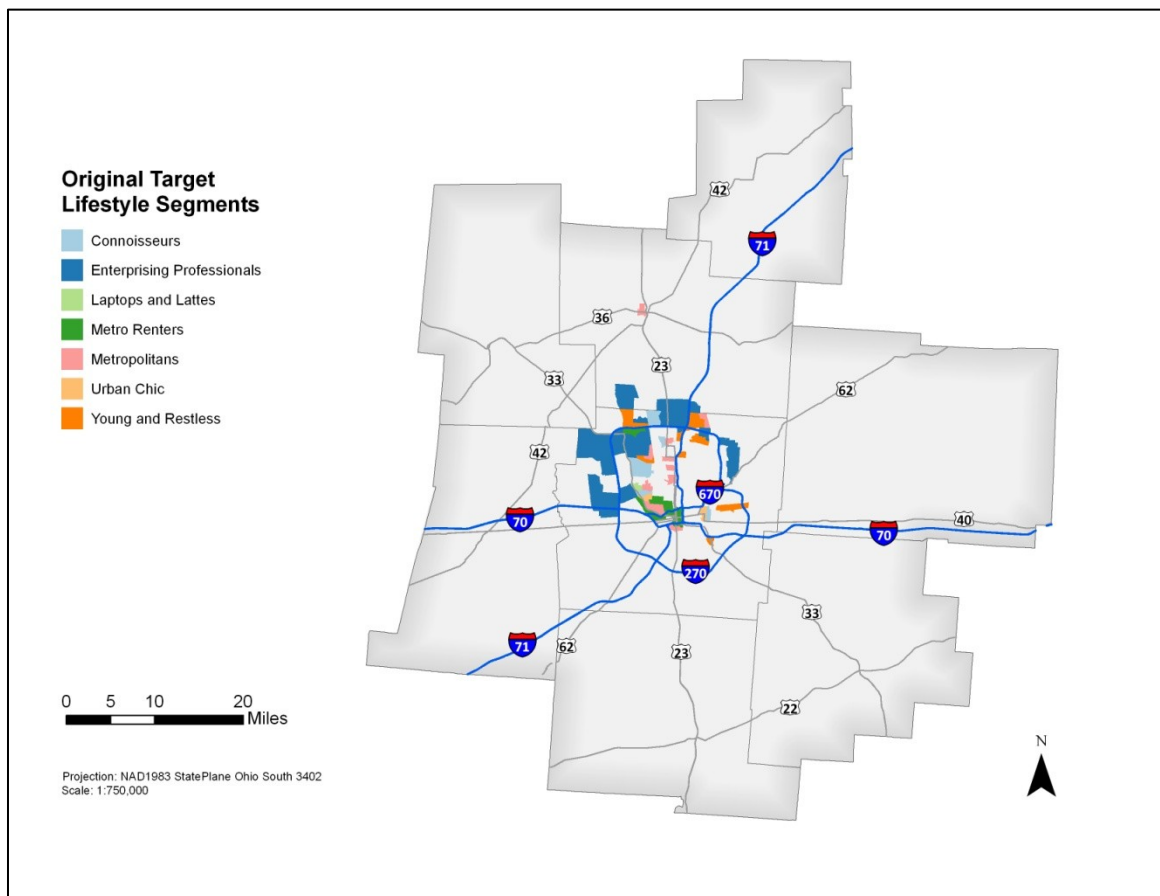
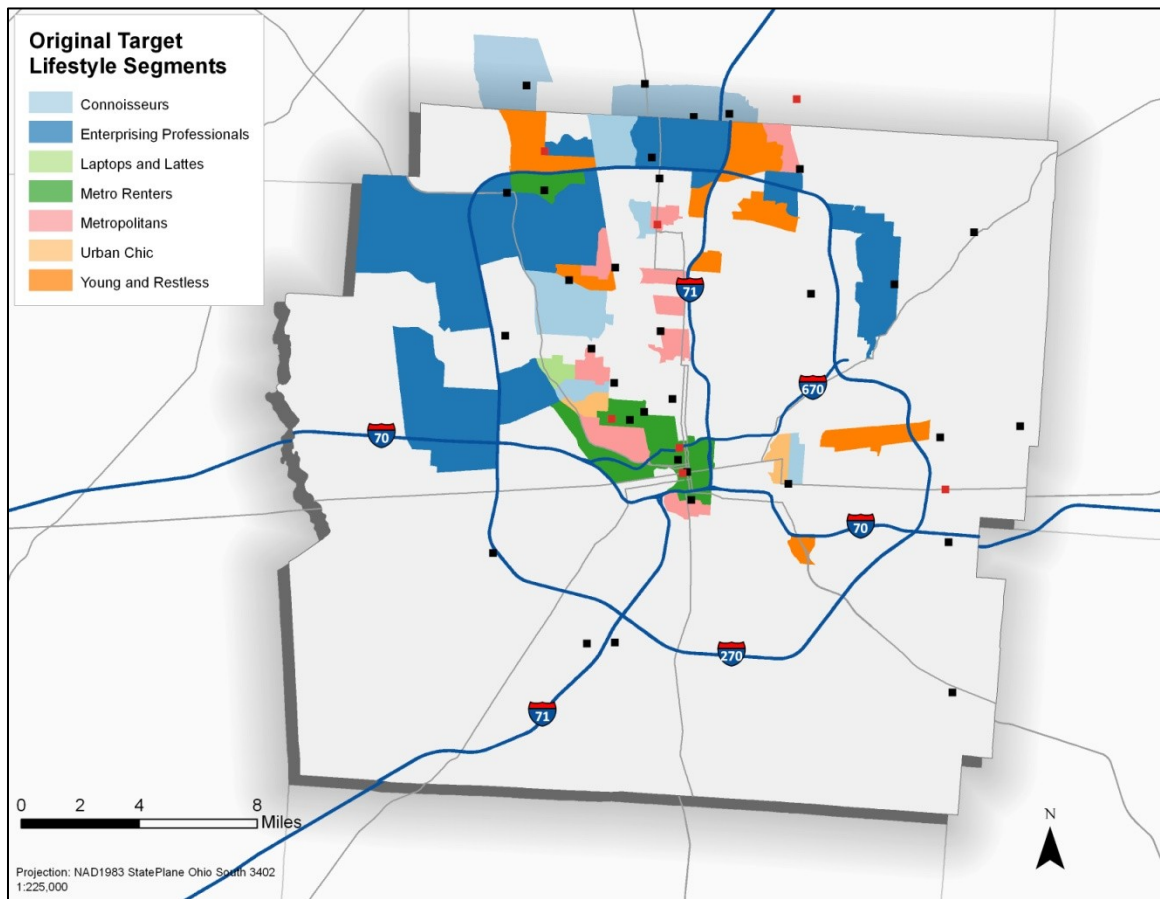


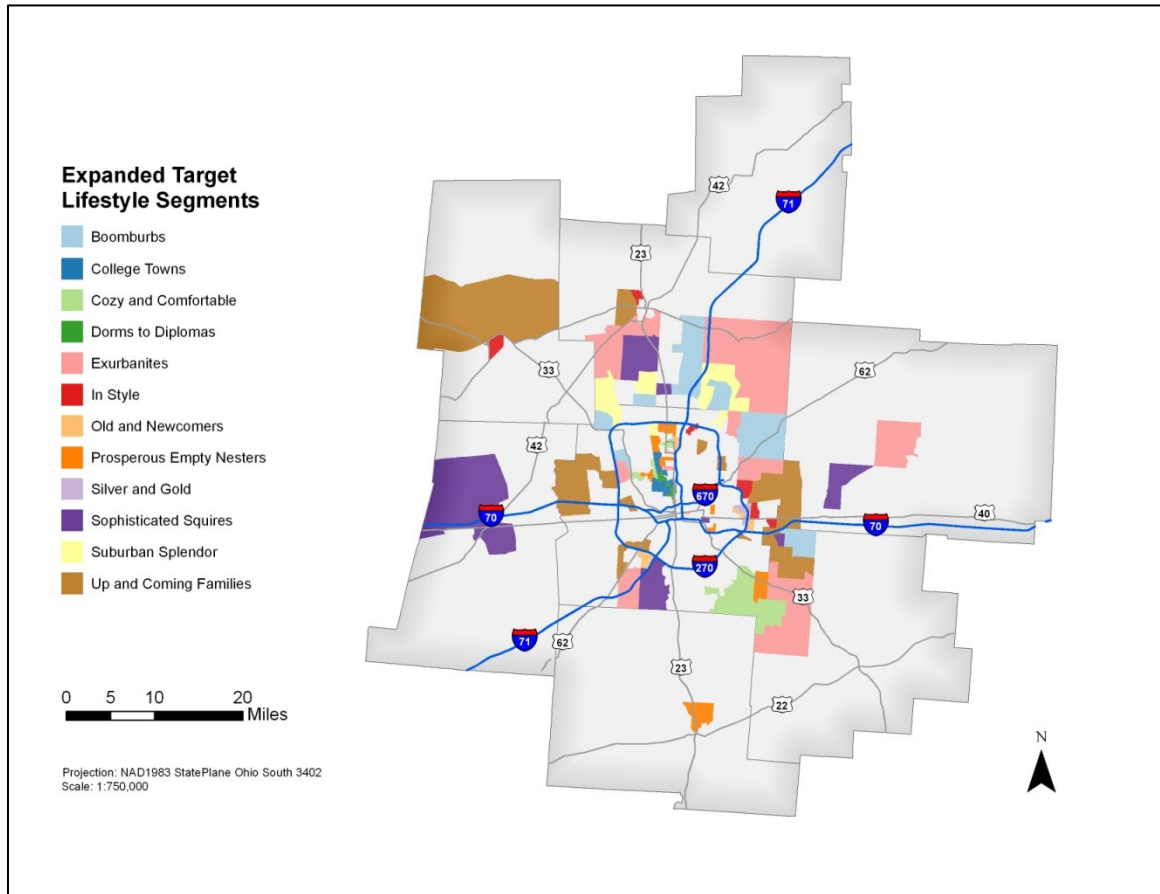


Figure 23. Target segments: original customer base



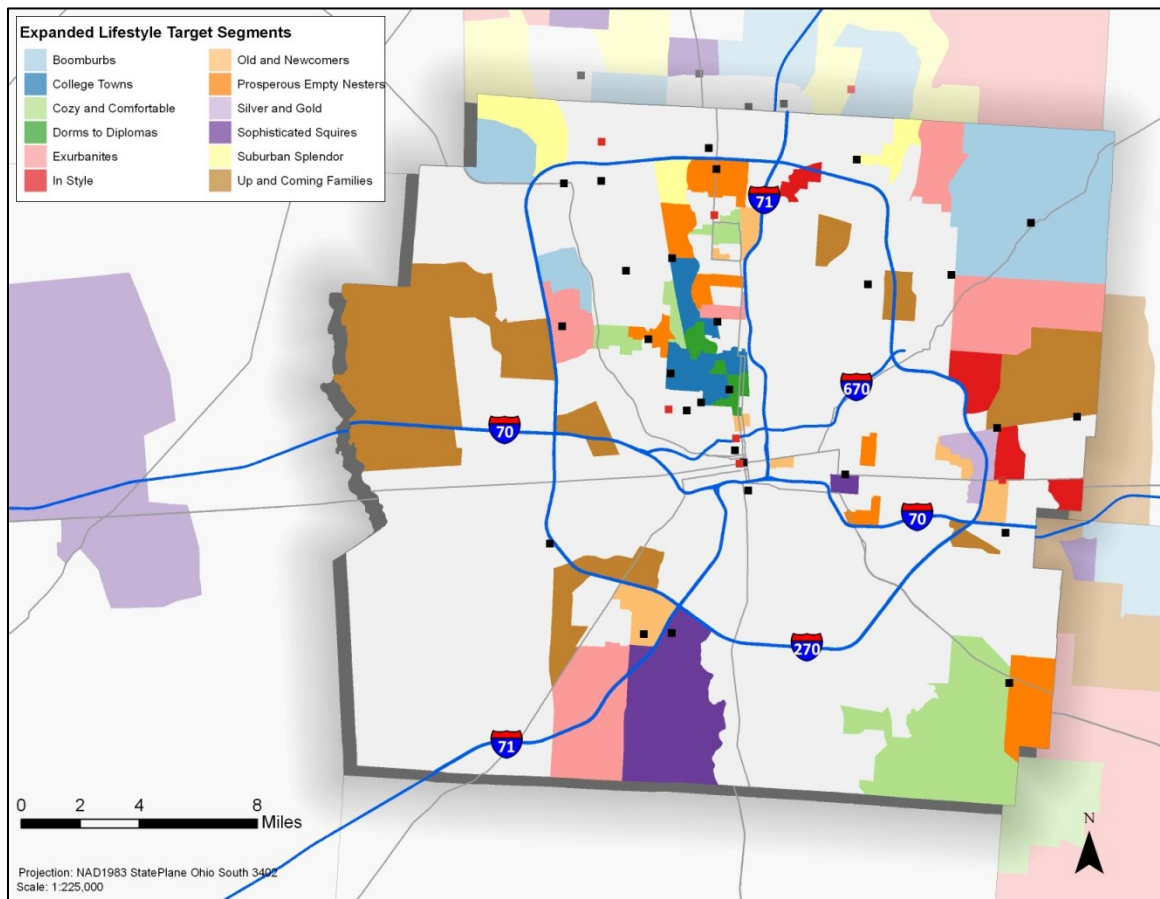
Yet, because the consumer profile of the average Starbucks consumer has shifted dramatically in recent years to include younger, less affluent, and more ethnically diverse consumers, it is worthwhile to assess the implications that this expanded market may have had in store location decisions and performance (Buchanan & Simmons 2009). Figure 24 illustrates these segments which are consistent with the lifestyles of consumers that are included under this broader target market.

Figure 24. Target segments: expanded customer base



Many of these segments are located in the suburban periphery, in areas such as Delaware County, Canal Winchester, Grove City and areas of Columbus near the Ohio State University and northward towards Clintonville. In fact, many of the outlets located beyond the I-270 urban loop are located in these areas, though two of the seven store closures occurred in such locations as well – one in Westerville and another in Reynoldsburg (Figure 25).

Figure 25. Target segments: expanded customer base



Once again, the close proximity of these two particular outlets to other locations within the store network might suggest underperformance due to cannibalization from other stores or other spatial and platial factors which are not evident at this scale of analysis. Yet, considering the sales potential of stores in such locations, for instance Canal Winchester and Lewis Center, targeting these particular segments which extend the target market beyond the conventional perceptions of the Starbucks consumer elsewhere might serve as the foundation for future location strategies and expansion of the store network.

## 4.2 Qualitative Methods: Results

The spatial methods implemented up to this point have been conducted under the assumptions of neo-classical economics in which consumers are reasoned to be rational beings who make decisions based upon perfect information. In the context of this study, this would imply that consumers will choose to purchase from an outlet which imposes the least cost in terms of distance traveled from their current location. However, numerous economic geographers (e.g. Thrift 2000; Scott 2004) have contested the reality of this theory and have suggested that conceptualizations of place have a much more significant influence on behavior in the modern economy, implying that space plays less of a role by virtue of technological advances which have mitigated many of the constraints which once limited accessibility to a much greater degree. In practice, Goss (1993) and Kumar and Karande (2000) have both demonstrated how the functional elements of the retail atmosphere have critical implications in profit generation. Moreover, Christopherson (2007) explains how the value-orientation of the context in which a retailer decides to locate also necessitates an assessment of the consistency between a retailer's value platform and the psychographics of the consumers which a particular outlet intends to cover in its service area. As such, a qualitative assessment of the configuration of the Starbucks store network proceeds by first using the checklist in Table 6 at a sample of currently operating outlets (Table 11) as well as closed outlets (Table 12) in order to offer knowledge at a scale which facilitates an understanding of how the idea of the "third place" materializes in accordance with the company's value platform.

#### *4.2.1 Store Observations*

##### Open Outlets

The outlet in German Village is one of the few outlets in the study area without a designated parking lot or drive thru. Figure 26 shows the limited street parking available on the front and along one side of the store, implicitly discouraging a heavy amount of patronage from individuals travelling in automobiles. However, the moderate amount of patronage from individuals travelling in automobiles. However, the moderate amount of pedestrian traffic typical in this predominantly residential neighborhood has been sufficient to sustain healthy profits. Through the store's architectural design, this particular outlet has adapted to the character of the historic district, occupying an older structure with a brick façade. The store appears unobtrusive in the context of the historic neighborhood, with the iconic Starbucks logo as the only indicator of the business's location.

Figure 26. German Village location



Source: GoogleEarth StreetView

The store faces direct competition from local specialty coffee shop, Cup O' Joe, across the street, thereby presenting those consumers looking for a cup of coffee to make a

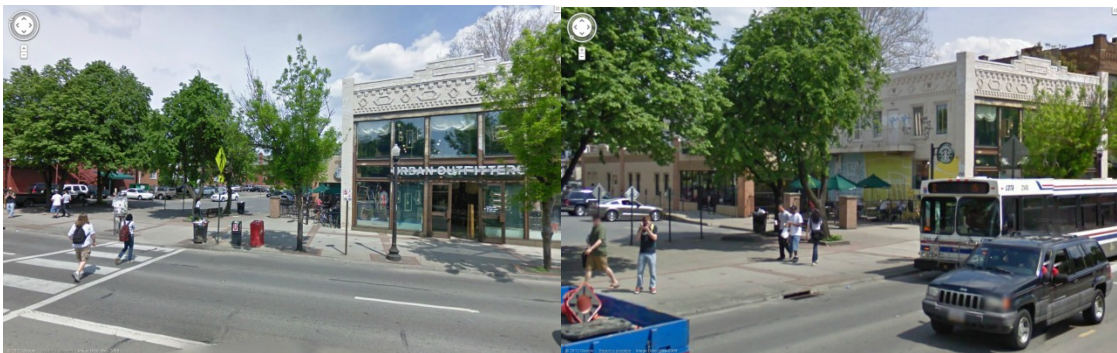
decision between a purchase from a local business versus an international retailer. Yet, the external, as well as internal, character of this outlet in no way feels gimmicky or sterile as some have criticized in the company's expansion (Schulz & Gordon 2010). Black and white photos on the interior pay homage to the deli which formerly occupied the space, while a rotating selection of local artwork adorns one wall of the café, which remains secluded from the bar area, providing a respite for those wanting to read in one of the leather chairs. The space is rather narrow and offers limited seating, thereby precluding much opportunity for crowding.

The customers in this outlet seem to represent a wide variety of demographics, although a healthy amount of well-dressed professionals seems to dominate among the other seniors and younger students populating the space. Regardless of the consumer, however, the baristas seem to be on a first name basis with the majority of those who walk through the door. A blackboard illustrating cartoon figures of all the baristas along with their names is also propped up against the bar, encouraging all consumers to become more connected with the baristas on a more personal level. This kind of personalization is no doubt indicative of the connection which Schulz intended to be present within every Starbucks, thus creating a sense of place for consumers that has some emotional connection because of the social interactions which have occurred within the physical space. This is consistent with Massey's (1993) conceptualization of place as the result of individual social relations and experiences which become articulated at a particular location and time.



A second observation was conducted at the Ohio State University store to observe how the idea of place might be conceived in a much different spatial context which presumably draws on a much different consumer demographic, mainly the student population at OSU. Though facing High St. (Figure 27), a busy north-south arterial that extends through the City of Columbus, this outlet can be accessed by car only if one is able to secure one of the few metered parking spaces at the end of 15<sup>th</sup> Ave, which dead ends before providing a connection with High Street. To access this Starbucks outlet from High Street, a car would have to follow a circuitous route to loop back down an alley way and onto 15<sup>th</sup> Ave. with the metered parking. This is a reasonably discouraging trajectory for drivers, and as such this outlet seems to also draw primarily from pedestrian traffic, of which there is a consistently heavy flow as students transition between the campus area directly across High St. and the adjacent east campus residential area.

Figure 27. Ohio State University location



Source: GoogleEarth StreetView

A variety of competitors are present in this area, consisting of numerous on campus locations providing coffee as well as a local specialty coffee shop, Brenan's, in addition

to Panera Bread and McDonald's, all of which are also located on High St. Yet, the substantial flow of students seems to provide a steady stream of business for this Starbucks, in which the line of customers at times reaches the front entry way. The heavy traffic flow creates an atmosphere that is less ambient than the German Village store, resulting in a much higher level of noise that is a buzz of conversation, steaming milk, and the grinding of coffee. While the store provides a variety of seating accommodations, such as couches and longer tables for larger groups, the external façade and the manner in which the interior is retrofitted do little to distinguish the store from the prototypical Starbucks. Yet, there is a positive energy created by all of the baristas who attempt to engage in conversation with as many customers as possible to create an experience that is anything but sterile. Once again, while the proximity in space to a concentrated area of dense population presents the opportunity for optimal store performance, in light of the many alternative options present close by, it seems that a sense of place is created primarily through the quality of the personal exchanges which offers a distinct experience while simultaneously providing efficient service for a market segment that values expediency but nonetheless appears to enjoy the positive social recognition that accompanies the service.

Much different in character from either the German Village or Ohio State University location is that which is in Lewis Center. This particular outlet is located in a commercial strip along US Route 23, locally designated as Columbus Pike, near an intersection with Powell Rd. in Delaware County (Figure 28).



Figure 28. Lewis Center location



Personal Photographs: (a) view from Columbus Pike (b) view from Powell Rd.

The intersection of two heavily traveled 5-lane thoroughfares undoubtedly situates this outlet in proximity to a large potential market of commuters. US Route 23 is a major arterial road connecting the Town of Delaware with Franklin County and the City of Columbus. Powell Rd. is another major arterial connecting the area of Powell, to the west, to the commercial development around Polaris to the east.

Yet, the positioning of the outlet on the southbound side of US Route 23 facilitates an approach from those consumers traveling from Delaware County to Franklin County. The outlet's situation is therefore strategically placed to capture consumers of Delaware County during their morning commutes to areas of employment in the more urbanized areas of Franklin County. As exemplified by the photographs in Figure 23, the outlet's visibility from any approach is somewhat limited by the proliferation of other commercial development and vehicle traffic. Still, the outlet is nevertheless one of the most profitable in the store network.

Observation of the internal retail atmosphere suggests much of the store's consumer traffic is derived from drive-thru sales, as only two other consumers are noticed sitting inside at one of the tables, and no additional consumers arrive during the course of the entire observation. Moreover, the limited size and availability of comfortable seating in the café seating area implicitly discourages consumers from lounging and spending an extended period of time. The environment is clean yet cold and sterile, although the service I receive is warm and inviting.

I return on a different date to experience service from a consumer's perspective through the drive thru. I encounter a longer wait, as most others seem to prefer to purchase their coffee without leaving their vehicles rather than parking and entering the store. Still, the service I receive is as light-hearted and warm as possible for a verbal exchange through speaker systems and a drive-thru window. The baristas no doubt attempt to deliver the same intimate experience that has been championed by Howard Schulz in order to continually produce a third place environment to those consumers who place a priority on convenience. Indeed, the surrounding landscape of expansive parking lots and big box retailers suggest that for any business to succeed in this particular context, a business must make appropriate accommodations to facilitate automobile traffic and provide expedient service. As such, an attention to the internal functional characteristics of the retail environment are likely less significant in having an effect on consumption patterns here and may be perceived as mere novelty rather than having any effect in the relations which produce place.

This is a stark contrast to the store in German Village which by virtue of its location in a historic district must not only adhere to certain zoning regulations but also be designed in a manner which resonates with the values associated with historic preservation. A store which would have been designed in a manner that was obtrusive with the surrounding environment would fail to be consistent with the tenor of residents' value system in the store's service area. Much like Goss's (1993) reading of the mall landscape, management ostensibly exploits this modernist nostalgia for authenticity through environmental cues ranging from the architecture to the artwork paying homage to the store's former life.

### *Closed Outlets*

The next stages of observation consider those locations which are no longer in operation, the first of which is located at 1505 West Fifth Avenue in Grandview (Figure 29). Although this store accommodated parking in a lot shared with the CVS drugstore next door, it was not retrofitted with a drive-thru as is the next closest outlet, less than a mile away, also on Fifth Ave. While the formerly operating outlet ostensibly offered a larger café area (the store at 1085 W. Fifth Ave. is not even retrofitted with indoor seating), it is less accessible to automobiles since the land parcel is not located on a corner lot in which traffic flow is management by a traffic signal.

Figure 29. 1505 Fifth Ave. location



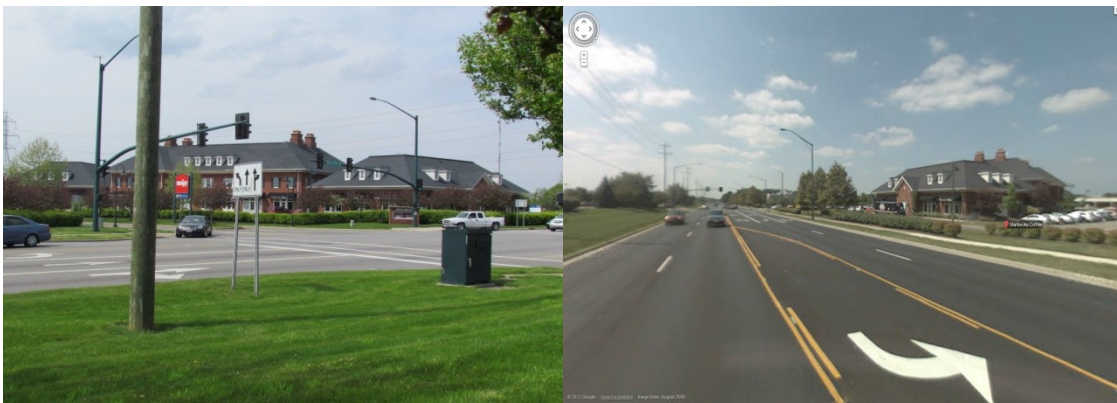
Source: GoogleEarth StreetView

The proximity of both stores to one another creates a substantial overlap in service area coverage (Figure 8), and thus business at one store presumably cannibalized the sales potential of the alternative store. It is sensible to consider this as a significant factor in the decision to discontinue operations at 1505 Fifth Ave., with the store at 1085 Fifth Ave. being the outlet chosen to remain open by virtue of its accessibility to serving consumers as they traverse Fifth Ave., a major arterial connecting Grandview Heights with popular destinations in the City of Columbus including the Ohio State University and the Short North neighborhood.

The Maxtown Location in Westerville is also located in close proximity to other stores within the store network, although to a lesser degree than those in Grandview, and subsequently experienced some overlap in service area coverage. Still, the outlet at 2040 Polaris Parkway, in particular, is on a major thoroughfare facilitating the travel of many consumers to or from Westerville with alternative areas of the metropolitan area by providing direct access to I-71, and it is therefore reasonable to presume that many

consumers who might travel past the Maxtown location also travel past the Polaris Parkway location just minutes later, or earlier, in the course of their daily travels. Moreover, the Polaris Parkway location has the added advantage of being retrofitted with a drive-thru, thereby enhancing the commitment to offering convenience, which has been a central tenet of the company's value platform (Fiscal 2011 Annual Report). Moreover, Figure 30 illustrates some of the difficulty with which the outlet is visible from the street as well as problems with access. The site is not directly accessible from N. State St., but patrons had to travel into the commercial area on Maxtown Crossing before gaining access to the parking lot in which the Starbucks was located along with a variety of additional commercial businesses and professional services.

Figure 30. Maxtown location

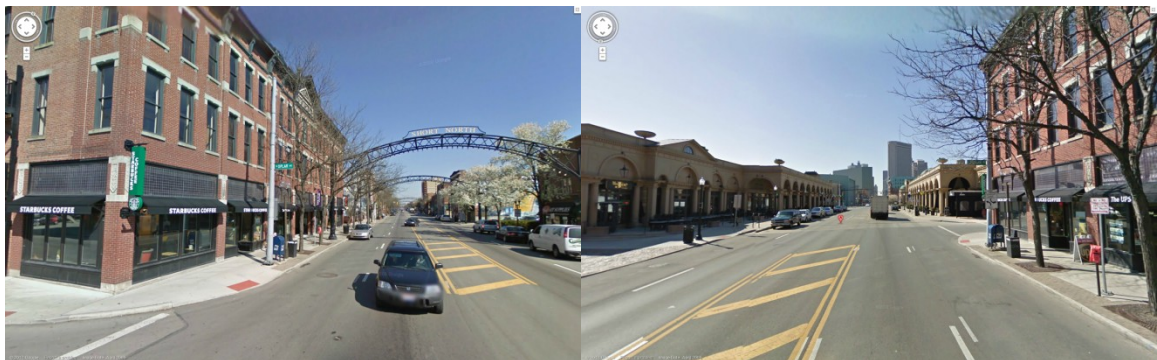


Source: (a) Personal photograph (b) GoogleEarth StreetView

The next store location observed is in the Yukon Building located on N. High St. in the Short North district (Figure 31). At first glance, this presents perhaps the most interesting case of the store locations observed. This area is generally perceived as one of

the most vibrant neighborhoods in Columbus, noted by Hunker (2000) and the Columbus2020! Economic Growth Strategy (2010) as it exemplifies the manifestation of a renewed interest in central areas of the city in recent years. Here, as in German Village, the formerly operating Starbucks outlet was located across the street from the same local direct competitor, Cup O' Joe. Despite facing the same competition, however, the Yukon Building was slotted for closure amid poor performance. Since this kind of competitive environment has not been detrimental to the company elsewhere, the trajectory of events which led to a management decision to cease operations at this particular outlet suggests that other factors conspired to impede the store's performance.

Figure 31. Yukon Building location



Source: GoogleEarth StreetView

The congested nature of High St. throughout the Short North along with limited metered parking all but obfuscates the potential patronage of consumers approaching the store in automobiles. The outlet was thereby poised to garner profits almost exclusively from pedestrian traffic. While a healthy amount of pedestrian traffic manages to sustain a variety of businesses throughout the Short North, Starbucks has been the only major retail

brand to penetrate the neighborhood. The other businesses present are predominantly locally owned and operated, including other small specialty coffee shops such as Travonna and Impero a few blocks north on High St. as well as Café Apropos in nearby Victorian Village. The penetration of a multi-billion dollar international retailer in the area is accordingly inconsistent with the character of the neighborhood, which implicitly celebrates independently owned businesses. This trend arguably marks the area as somewhat bohemian in nature, which is one aspect to which Starbucks' value platform was conceived in opposition, intending to offer an atmosphere in which it served high quality coffee to more sophisticated professionals in financial services and management occupations (Lyons 2005).

#### ***4.2.2 Individual Interviews***

While personal observations definitely provide some additional insights regarding the relative performance of outlets and the functional elements by which a concept of place is produced in accordance with Starbucks' value platform, there is a limit to what one can assume regarding a consumer's behavior through these means. The next steps in the qualitative component of this analysis consequently seeks to understand those psychographic characteristics of actual consumers to develop an understanding of both the values which motivate their purchase decisions while simultaneously seeking to illuminate perceptions of the brand personality and how this may have become realized through the store environment.

Across all interviews, respondents articulated product quality as a major functional attribute which has been integral to the development of their brand loyalty with



Starbucks. Many identified themselves as “coffee lovers”, suggesting that they have a more refined taste than those who only engage in occasional consumption of coffee beverages. A number also stressed the consistency in product quality and expressed that there is a comfort in knowing that one’s expectations for a superior product will be met without question time after time at Starbucks. For some, this also means having the capability of domestic and national travel and remaining able to expect that the same offerings be delivered with a similar superior level of service.

This perception of superior quality seems to have manifested itself in some conceptualizations of brand personality, with many respondents describing the brand as an individual whom they describe as “luxurious” or “glamorous”. Moreover, respondents indicated the incentives offered through the Starbucks Gold Card as a means of allowing them to feel as luxurious or as glamorous as the brand itself, and the card has thereby become something of a status symbol. In this regard, consumer purchases become motivated by aspirations to realize one’s self concept as discussed by Malär et al. (2011). Moreover, respondents indicated that having the card provided a sense of belonging, providing access to a status group which has some degree of exclusivity. Despite such feelings, these particular respondents also articulated the fact that they could attain such a status for relatively little money, describing the brand as an affordable luxury in which virtually anyone could participate for just the cost of a few dollars. By contrast, there were those respondents who recognized that the price point of Starbucks offerings posed a discernible difference with alternatives, but that the attributes of product quality and the



consistent standards with which the offerings are delivered is enough to outweigh the cost absorbed through paying a higher price on average for coffee beverages.

Still, others personified the brand in terms of a working class individual, someone who is friendly and approachable, and a few of these respondents struggled to describe the brand in terms of demographics, contending that the brand is all-inclusive and could not be discriminatory in such a manner. Even those respondents who discussed the brand as one which was more sophisticated, associating it with descriptions of professionals as “very white”, “uppity”, or “pretentious”, nevertheless agreed to the affability and accessibility of the brand overall. To illustrate, one respondent drew a comparison between the brand and a movie star who always stopped to greet and sign autographs for her fans. Respondents indicated that they conceived of the brand in such terms as a result of the level of service provided, which was articulated as another prominent functional attribute which motivated purchase decisions. A few respondents even spoke to this through comparisons to alternative specialty coffee purveyors, explaining that a cup of coffee can be bought anywhere without much difference in taste or quality, but the experience of warmth and recognition offered during their transactions at Starbucks was enough to encourage repeat visits which have generated feelings of brand loyalty.

Service was also discussed in terms of the convenience offered by Starbucks through its general accessibility for all consumers interviewed. This supports, to some degree, the legitimacy of the spatial considerations examined in the previous GIS analysis to determine the degree to which proximity to consumers defined through service area delineation affects purchase decisions, but the quality of the service itself seems to act as

a differentiating factor for these particular consumers when multiple competitors present the consumer with many options through which they may acquire coffee beverages. Accordingly, consumer responses support much of what Starbucks attempts to achieve in its value platform, articulating the belief that consumers make their decisions among competitors based upon product quality, service and convenience, as well as price (Fiscal 2011 Annual Report).

Respondents connected the importance of these attributes with more fundamental values such as the importance of feeling satisfied and content. Additionally, a few respondents spoke in terms of these attributes, particular with regard to the service, as having a mood enhancing effect which provided a feeling of happiness or a sense of excitement. Others also connected service experiences with feelings of being special and as if they were being treated in a way that was very caring and loving, thereby offering a sense of belonging and membership in some sort of status group by virtue of the recognition they received by Starbucks staff or through the Starbucks Gold Card. One respondent seemed to conceive of the brand more in terms of what was offered by the store environment, indicating that positive associations with the brand had been derived through the connections and rewarding friendships that had materialized over time within a particular store outlet.

It is beyond the scope of this research to conduct a rigorous assessment of consumer's value systems, but the insights gathered here may be used to suggest the implications in terms of market segmentation. In looking to Rokeach's (1973) terminal values, the desired end states articulated by respondents may include *true friendship*, *happiness*,

*social recognition*, and *an exciting life*. Taking Kahle's (1983) reduction of Rokeach's terminal values, the desired end states expressed seem to be shared between *fun and enjoyment in life* and *warm relations with others*. Those seeking fun and enjoyment are described as self-sufficient and original individuals who are not overly concerned with others' opinions. This value segment takes the time to enjoy life's simple pleasures and is generally not subsumed by life's problems. They are also generally creative, unconventional, and optimistic, and also rank high in terms of intelligence. However, this segment of the population has also been found to have a higher than average level of dissatisfaction with their employment while also desiring a life with as few obligations as possible. By contrast, the *warm relations with others* segment is much less autonomous and much more compassionate and engaged with others, having many well established interpersonal relationships but nonetheless desiring more friends. Family often provides a avenue for value fulfillment among this group, as they strive to develop a sense of importance to others while also providing support to those around them. Alternatively, referring to Schwartz & Bilsky's (1987) seven motivational domains, the values articulated through the interviews conducted primarily fall within *enjoyment* as this domain is tied with physiological gratification, which becomes transformed into socially recognized values such as pleasure, a comfortable life, happiness, and cheer. Yet, the need for belonging and affiliation expressed by many might arguably place some consumers within the *prosocial* motivational domain as well.

Understanding that such values or value systems are characteristically shared by Starbucks' consumers ought to allow the company a means of further refining the kind of

geodemographic and lifestyle segmentation methods explored through GIS in offering location intelligence to support strategic store planning and development. Moreover, Vinson, Scott & Lamont (1977) suggest that marketers may use values to understand how the same brand resonates with regard to different subgroups and may consequently inform strategies to position their product accordingly among various segments. This strategy seems to have been employed to some degree as evident through the store observations conducted in this study. The differences in what the retail atmospheres offer to consumers, for instance the convenience of the Lewis Center outlet versus the comfort and charm of the German Village location, cater to two opposing expectations yet manage to remain profitable in the provision of the same offerings. The multiplicity of values expressed through consumer interviews supports the continuing need for the company to micro-market the development of outlets in order to cater to disjoint value segments.

An example of such a strategy may be evident in the recent introduction of “concept” stores in which outlets have abandoned the prototypical store design and branding (see Fiscal 2011 Annual Report), suggesting a move on the company’s behalf to incorporate additional segments whose value system might present incongruity with the conventional Starbucks model of development and brand image. Alderman (2012) discusses the difficulty of such incongruencies in the context of France, where the company has historically had a difficult time turning a profit in the continent that gave birth to the café and coffeehouse culture. In Paris, a city with an entrenched coffeehouse culture where consumers like to sit and sip espresso, the company has invested in

additional seating and refining their espresso to accommodate the French palette. Moreover, to humanize its chain-store image, baristas in Europe started wearing nametags. The concept store innovation has resulted in a number of makeovers which include stores preserving local architecture, adorned with velvet chairs and chandeliers, to stores inspired by modern architecture with local wood and space for poetry reading, all of which is intended to give the feel of a trendy neighborhood coffee shop.

This strategy of development in which stores are more accommodating to the local environment and provide a retail atmosphere comparable to an independent specialty coffee shop may allow for the expansion of the store network into new areas offering substantial market opportunity, not just internationally but domestically as well. Such a store might have been a more successful option in the Yukon Building location in the Short North, where consumers place an apparent value on the local, shying away from the presence of international brands. The failure of the company to consider this aspect suggests there is significant opportunity for the company to improve its store planning & development operations by incorporating more research regarding how value systems segment the market and have critical implications in store performance. Moreover, there are large areas within the study area in which Starbucks has not established market presence, suggesting that research on the value systems of these consumers might be a worthwhile endeavor if the company attempts future expansion, which may also include consumers from more diverse socioeconomic backgrounds.

#### *4.3.3 Implications of Social Media and “Big Data”*

Developing an understanding of consumer value systems and the implications these may have in regard to a brand or product and accordingly segmenting the market along these lines can be a time consuming and laborious process. Yet, the explosion of big data offers the potential to enhance market intelligence by offering a range of information about individual geographic locations while also offering information that may reveal insights which suggest the ways in which values motivate product purchases. In the context of Starbucks, Brian Solis (2011) worked with a team at Research.ly, a unique Twitter search platform, to review the 50,000 top followers of Starbucks on Twitter in the construction of an “interest graph”. An interest graph examines how social networks are formed around common interests and events, and Solis suggests this information has powerful potential for brands to develop the insights necessary to develop more meaningful products and services to target potential consumers. The team subsequently examined the bios of these 50,000 followers to learn more about their demographics, psychographics, sentiment, profession, and more. Research.ly can create a host of visualizations with the data acquired, though a word cloud highlighting the words most common in each of the bios is already very telling (Figure 32).

[illegible]

As evident by the word cloud, followers tend to use expressive words such as love, life, friends, and music. Other words which also appear, including family, people, and mom, suggest the personal and emotional connection to the brand. Solis (2011) also notes that while used, “coffee” is not at the forefront of their vernacular.

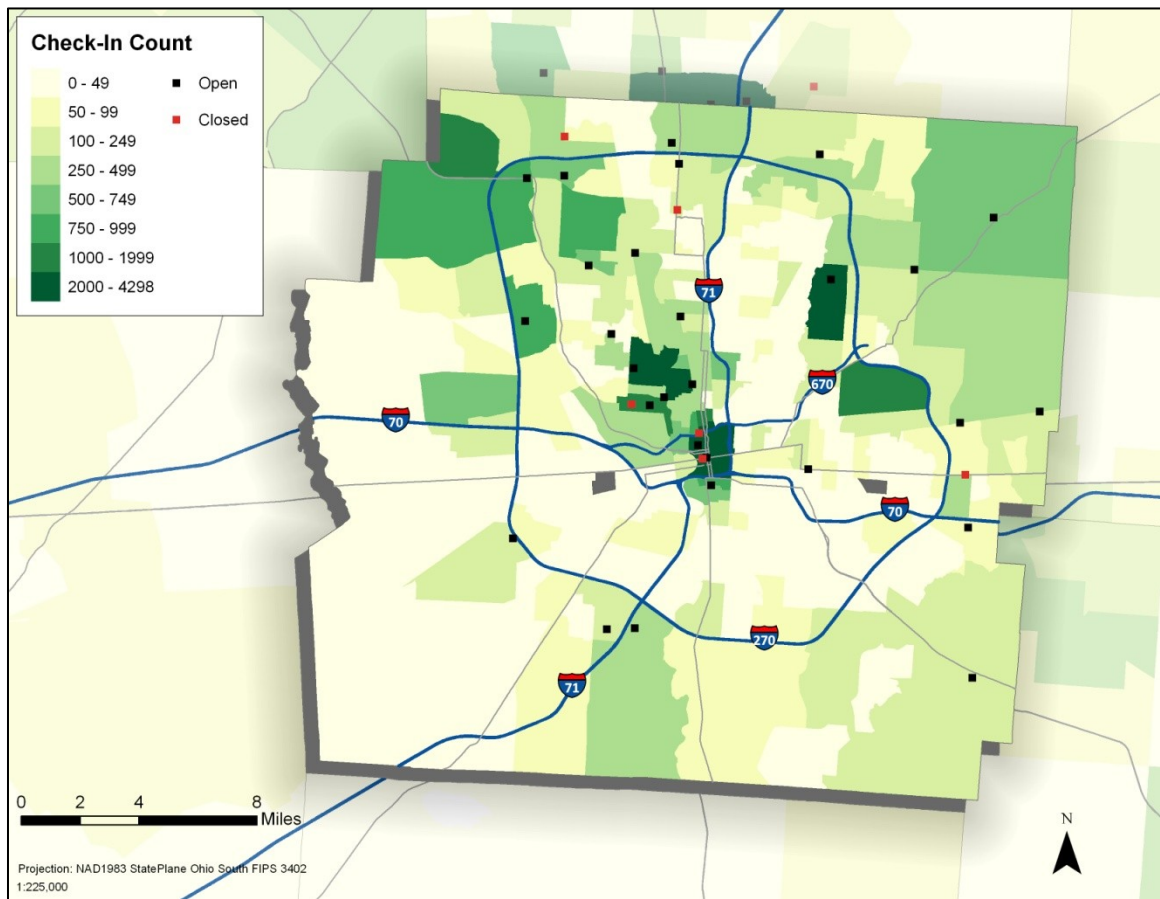
132

profession, despite the fact that the company had not originally intended to target such a segment of consumers, while many of those who are professionals work in social media or marketing. Popular areas of interest are music, food, and fashion, with many identifying themselves as self-proclaimed geeks or creatives. Perhaps most critical in the context of this study is Solis' (2011) conjecture that using Twitter as a stream of intelligence may facilitate the identification of higher and underperforming locales through associative word clouds which allow teams to investigate questions surrounding the location of positive or negative activity along with the underlying reasons.

Alternative location-based social media application, such as Foursquare or Facebook, can provide similar results through an analysis of "check-ins" and user comments. An examination of the distribution and spatial concentration of foursquare check-ins in the Columbus, OH MSA study area (Figure 33) potentially offers more precision in developing location strategies by offering insights into the trajectory of consumer's daily activities.



Figure 33. Foursquare check-ins, Franklin County



The concentration of check-ins in downtown Columbus, the area surrounding the Ohio State University campus, as well as in Dublin seems to legitimize the company's decision to concentrate outlets within each of these areas. Yet, as each area suffered at least one store closure, these findings suggest, once again, that the mere spatial proximity to consumers is not enough to sustain healthy store performance. As Solis (2011) demonstrates, assessing the qualitative component providing through such location-based media applications has tremendous potential to illuminate consumer sentiments and the way in which concepts of *place* resonate with consumer values, ultimately serving to

guide location decisions in a manner which balances the importance of both *space* and *place*.

This account speaks to Miller's (2010) conjecture about the tremendous opportunities that many companies have in garnering new insights and knowledge about the economy through VGI by offering an unprecedented view of society from the bottom up. Creating an interest graph such as Solis and his team of researchers exemplifies one way in which Haklay et al. (2008) have suggested that VGI may influence GIS analysis, offering a range of new demographic and psychographic information along with locational references that may allow marketers to tailor offerings through more precise segmentation based upon value systems as suggested by Vinson, Scott & Lamont (1977). Furthermore, the articulation of consumer sentiments provides a means for retailers to better manipulate the functional elements of the retail atmosphere to produce the affective responses which encourage consumption and contribute to the development of a sense of place which draws consumers.

## Chapter 5: Summary, Conclusions, and Future Work

The objective of this study has been to contribute to existing theories of developing retail location intelligence through a multiple methods process, paying close attention to how dual dimensions of *space* and *place* have had implications in the performance of outlets within the network of stores operated by Starbucks Coffee Company. The intention has been to cultivate a fresh perspective on the methods available to produce location intelligence as it is conceptualized from the dual dimensions of both *space* and *place*, contending that location-based social media applications may serve as an example of big data which has the potential to mediate the extant methodological polarization within the discipline of geography, facilitating the development of new methods which approach *space* and *place* as concepts that cannot be fully understood without due attention to the other.

### 5.1 Summary

The recent trajectory of restructuring within Starbucks Coffee Company that materialized after a decision by company founder Howard Schultz, once he reclaimed his position as CEO in 2008, to close over 700 underperforming stores across the United States (Schultz & Gordon 2011) presented an ideal opportunity for a case study of the geographic implications in the performance of retail outlets. First, approaches that have been utilized within conventional GIS were implemented to offer market intelligence from a spatial perspective to determine which in the network of store outlets ought to be

closed to prevent minimum losses in service area coverage while also attempting to illuminate the factors underlying the relative performance of individual outlets. The first objective was achieved through the utilization of a maximum covering location-allocation model (MCL) and ESRI's Network Analyst, which provided an opportunity to determine an optimal network configuration under a decision to close a certain number of underperforming stores within the study area (see Goodchild 1984; Ghosh and MacLafferty 1987).

Based upon previous research and case studies of Starbucks Coffee Company (e.g. Koehn 2001; Lyons 2005; Koehn Besharov & Miller 2008; Buchanan & Simmons 2009; Honack 2009), the market area was also assessed in terms of those demographics which had guided store location decisions throughout much of its history in remaining consistent with the company's value platform. Accordingly, geodemographic segmentation was employed in terms of population density, median age, median household income, and percent minority by Census Tracts. Implementing a more sophisticated approach to market segmentation based upon lifestyle segment profiles (LSPs) was taken as a next step to further define distinct tastes and consumer preferences within the study area as a means of understanding the relative performance of Starbucks outlets. Yet, the exponential growth of the company in the most recent decade has simultaneously resulted in an expansion of the average demographics and lifestyles of consumers who are engaged with the Starbucks brand. As such, this stage of research considered those segments which are most consistent with the original target consumers articulated in the company's value platform (see Lyons 2005) using ESRI's Tapestry

Segmentation, while then proceeding to examine those segments representing potential consumers under the subsequent expansion of Starbucks into suburban areas as the company began to deviate from the initial location choices of the company.

Still, the methods implemented up to this point maintained consistency with the essentially spatial approaches common in conventional GIS, and thereby lack potential to reveal the contingencies of place which have been discussed among critical geographers and market researchers alike as having critical impacts on consumer behavior and an outlets' subsequent ability to achieve a desirable level of performance. As such, a checklist approach (see Ghosh & MacLafferty 1987; Thrall 2002) was implemented to assess a range of characteristics relating to the favorability of both the external physical context of the retail site as well as the internal retail atmospherics (see Kumar & Karande 2000) in the ability to generate profits by enhancing accessibility to consumers in addition to evoking a "third place" environment, which has been central to the company's value platform and brand personality. Both a sample of currently operating outlets as well as the sites of close outlets was selected for observation.

Individual interviews were then conducted with a small sample of Starbucks consumers to begin to develop a better understanding of the unifying values which motivate their purchase decisions in order to offer insights regarding future planning and development efforts. Using means-end chain analysis (Valence-Florette & Rapacchi 1991) and projective techniques (McDaniel & Gates 2012), several shared values were identified through conversations as comparable to the value classifications developed through research from Rokeach (1973), Kahle (1983), and Schwartz & Bilsky (1987).

Additionally, Web 2.0 technologies have enabled the development of location-based social media such as Facebook, Twitter, LinkedIn, etc. which present new opportunities to examine values as they become expressed through “check-ins” and “tweets” which contain georeferences often along with expressions of consumer sentiment. These implications were examined through external research studies and trends in using “big data”, while the possibilities of using such data in the context of the study area was examined through an analysis of foursquare check-ins.

## 5.2 Results

The incongruity between the optimal store network configuration suggested by the MCL (Figure 9) and the current store network (Figure 8) which exists as a result of seven store closures in the study area suggest additional contingencies which may have affected the decision making process, necessitating a need for additional methodological approaches. An assessment of the study area geodemographics illustrates a remarkable relationship present between location decisions and areas of high density, older median ages, higher household incomes, and lower percentages of minority groups, although none of the demographics examined could account for the poor performance of the seven closed outlets. Using ESRI’s Tapestry Segmentation to examine the market in terms of lifestyle segment profiles, it was discovered that five of the seven area store closures have been located within census tracts characterized as those market segments representative of the company’s original consumer base. This may suggest an oversaturation of these

market areas and that the future of the company's development may be found in identifying new market opportunities among alternative lifestyle segments.

Through observations of a sample of open outlets within the study area, a diverse range in the retail atmosphere as well as the situation of the retail site was noted, although one unifying aspect was the level of service offered at each, illustrative of the "Starbucks experience" that has been central to the third place concept articulated through the company's value platform (Schultz & Gordon 2011). Thus, *place* in this context is arguably defined as the product of a fundamentally social relationship that has created a friendly rapport between barista and consumer, supporting Massey's (1993) progressive sense of place as a constellation of relations articulated over time embedded within a spatial context.

Observations at the sites of formerly operating outlets suggest that two major issues hindered performance which resulted in closure, including elements of accessibility as well as congruency with the value systems of the market segments served by the outlet's trade area coverage. All three observed sites had been retrofitted without drive-thru service, and their relative proximity to nearby outlets which, by contrast, offered consumers the option of drive-thru service, suggests that this is one attribute which potentially cannibalized sales from these closed stores. While this does not necessarily imply that all outlets ought to be retrofitted with drive-thru service, based upon successful operations at stores such as in German Village and at The Ohio State University, it does suggest accessibility is a highly nuanced construct that warrants consideration from different terms and at various scales. Moreover, a reading of the surrounding landscape,

particularly in the Short North, suggests incongruency with neighborhood value systems, which place value on local independent businesses in favor of large international retailers such as Starbucks. This case illustrates the need to segment markets in terms of values to understand the ways in which a company may tailor their offerings in a manner which is consistent with these values, as they have been demonstrated to provide a better indicator of consumption behavior than conventional approaches based upon demographics (Hoyer & MacInnis 2008).

Individual interviews served to provide a more precise account of the values shared by consumers which motivate their purchase decisions and brand loyalty. Broadly speaking, most values could be reduced to perceptions of enjoyment or fun offered by the brand and the outlet atmosphere, while there were also select individuals who articulated elements of sociality and developing close ties of kinship as a core value which was realized through their engagement with the Starbucks brand. Although some degree of accommodating different values has been evident through the observations conducted, there is opportunity to employ micromarketing strategies which further refine the market by affording attention to the diversity of consumer values present across the market and manipulating the retail atmosphere in a manner which resonates with consumers accordingly.

“Big data” might facilitate such market segmentation, exemplified through Solis’ (2011) study which harvested VGI from Twitter to conduct a text analysis of the tweets from the 50,000 top followers of Starbucks Coffee Company, discovering the expressive nature and importance of love and friendship shared by consumers. An observation of



these trends at a smaller geographic scale could provide additional insights in the company's attempts to find areas of new market opportunity in which the company may market its offerings in a manner that is consistent with alternative value segments.

### 5.3 Future Work

Accommodating new value segments is somewhat evident through the company's latest attempts to introduce concept stores (see Alderman 2012), and the findings of this research suggest taking an approach, described in a review of recent trends in human geography by Sui & DeLyser (2012), based on hybrid methodologies to develop a holistic approach to understand the full implications of *space* and *place* in developing location intelligence to support future expansion of the store network. Moreover, the convergence of GIS and social media is shifting the process of data analysis from a static process to one which is dynamic and contingent upon real-time situation monitoring, yet attaining this goal demands the development of better tools to fully understand the spatial dynamics (Sui & Goodchild 2011). Accordingly, there is much room for future work in the development of retail location intelligence contingent upon the development of new sophisticated data analysis tools which may accommodate this newly emerging "big data" brought on by the wave of location-based social networking.

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## Appendix A: Additional Tables

Table 14. Target Segment Descriptions

Connoisseurs	<b>Demographic</b> Residents of <i>Connoisseurs</i> neighborhoods are somewhat older, with a median age of 47 years. Approximately 70 percent of the population is married. Although residents appear closer to retirement than child-rearing age, 30 percent of the households are married couples with children living at home. Ethnic diversity is negligible.
	<b>Socioeconomic</b> With a median net worth of \$708,781, <i>Connoisseurs</i> are second in affluence only to the <i>Top Rung</i> segment. This market is well educated; 64 percent of the population aged 25 years and older hold a bachelor's or graduate degree. Employed residents earn wages from high-paying management, professional, and sales jobs. Many are self-employed; the rate is twice that of the national average. They have a median household income of \$121,368 and supplement their salaries with income from interest, dividends, and rental properties.
	<b>Residential</b> <i>Connoisseurs</i> neighborhoods are usually slow-growing, established, affluent areas in densely populated city centers where the median home value is \$601,492. Most of their homes are single-family structures built before 1970; 87 percent own their homes. Commuting is a way of life; compared to the US average, more <i>Connoisseurs</i> residents live in a different state from where they work.
	<b>Preferences</b> Residents engage in conspicuous consumption. Their homes include the latest upgrades. Not do-it-yourselfers, residents hire contractors for home improvement and remodeling projects, lawn care, landscaping services for property upkeep, and professional housecleaning services. Exercise is a priority: they work out weekly at a club or other facility, ski, play golf and tennis, practice yoga, and jog. They travel abroad and in the United States, go to museums, and attend theater and dance performances. They go online to make travel plans, track and trade their investments, and shop. Active in their communities, they work for political candidates or parties, write or visit elected officials, and participate in local civic issues.
Boomburbs	<b>Demographic</b> The newest additions to the suburbs, these communities are home to busy, affluent young families. Both the neighborhoods and the families are growing. <i>Boomburbs</i> is the fastest-growing market in the United States; the population has been growing at a rate of 4.51 percent annually since 2000. It is also home to one of the highest concentrations of young families with children. The median age is 33.8 years; one-fifth of <i>Boomburbs</i> residents are between 35 and 44 years of age. There is little ethnic diversity in the population; most of the residents are white.
	<b>Socioeconomic</b> The <i>Boomburbs</i> market includes one of the highest concentrations of two-income households, complemented by one of the highest rates of labor force participation, at 71 percent. Residents are well educated: more than 50 percent of the population aged 25 years and older hold a bachelor's or graduate degree. They work primarily in management, professional, and sales occupations. The median household income is \$110,681, more than double that of the US median. More than half of these households receive additional income from interest, dividends, and rental property. The median net worth is \$387,651.
	<b>Residential</b> The newest developments in growing areas, approximately three-quarters of the housing units in <i>Boomburbs</i> neighborhoods were built after 1989; most are single-family houses. These are the newest developments in growing areas. The home ownership rate is 88 percent, compared to 66 percent for the United States. The median home value of \$282,689 is also high compared to the US median of \$157,913. Commuting links these dual-career households with their suburban lifestyle. Many work outside their resident county; 35 percent cross county lines to work (compared to 23 percent for the United States).

	<p><b>Preferences</b></p> <p><i>Boomburbs</i> is the top segment for buying household furnishings, toys and games, men's business and casual clothes, big-screen TVs, cars, and trees. This is also the top market to own big-screen TVs, DVD players, digital camcorders, video game systems, and scanners as well as owning or leasing full-size SUVs. Residents own laptop computers, all kinds of software, and two or more cell phones. They are well-insured, holding life insurance policies worth \$500,000 or more. They go online frequently to buy flowers and tickets to sports events, trade and track their investments, do their banking, and make travel plans. Personal computer use by children younger than 18 years is the highest of all the Tapestry segments.</p>
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Sophisticated Squires	<p><b>Demographic</b></p> <p>Residents of <i>Sophisticated Squires</i> neighborhoods enjoy cultured country life on the urban fringe. These city escapees accept longer commutes to live near fewer neighbors. Mostly married couple families; more than 40 percent of the households are married couples with children that range from toddlers to young adults. The median age is 38.4 years. Most are Baby Boomers and are aged between 35 and 54 years. This segment is not ethnically diverse; most residents are white.</p>
	<p><b>Socioeconomic</b></p> <p>These residents are educated; more than one-third of the population aged 25 years or older holds a bachelor's or graduate degree; another third has attended college. Labor force participation rates are high; occupations range from management to unskilled labor positions. Most work in white-collar jobs. The median household income is \$85,144. Nearly 90 percent of the households earn wage or salary income; nearly half supplement their wages and salaries with interest, dividends, or rental income. The median net worth is \$287,727.</p>
	<p><b>Residential</b></p> <p><i>Sophisticated Squires</i> live in less densely populated areas concentrated along the Atlantic coast and around the Great Lakes. Approximately 90 percent of the housing is single-family homes; the median home value is \$230,333. Seventy-four percent of the housing was built before 1990; 55 percent was built between 1970 and 1989. More than 80 percent of the households own at least two vehicles. They prefer compact SUVs; however, many drive minivans or full-size SUVs.</p>
	<p><b>Preferences</b></p> <p><i>Sophisticated Squires</i> residents take care of their lawns and landscaping; home improvements; and remodeling projects such as bathroom remodeling, installing new light fixtures, painting home interiors, staining decks, and cleaning carpets with their steam cleaners. They like to barbecue on their gas grills and make bread with their bread-making machines. Many households own a motorcycle. A typical household will own three or more cell phones. Looking toward the future, many residents own stocks, bonds, and large life insurance policies. When dieting, they go on Weight Watchers; many own a treadmill or stationary bike to stay fit.</p>

Exurbanites	<p><b>Demographic</b></p> <p><i>Exurbanites</i> residents prefer an affluent lifestyle in open spaces beyond the urban fringe. Although 40 percent are empty nesters, another 32 percent are married couples with children still living at home. Half of the householders are aged between 45 and 64 years. They may be part of the "sandwich generation," because their median age of 45.5 years places them directly between paying for children's college expenses and caring for elderly parents. To understand this segment, the lifestyle is as important as the lifestyle. There is little ethnic diversity; most residents are white.</p>
	<p><b>Socioeconomic</b></p> <p>The 65.2 percent labor force participation rate is slightly higher than the US rate of 62.4 percent. Approximately half work in substantive professional or management positions. These residents are educated; more than 40 percent of the population aged 25 years and older hold a bachelor's or graduate degree; approximately three in four have attended college. The median net worth is \$368,532, approximately four times the national figure. The median household income is \$84,522. More than 20 percent earn retirement income; another 57 percent receive additional income from investments.</p>

	<b>Residential</b> <p>Although <i>Exurbanites</i> neighborhoods are growing by 1.61 percent annually, they are not the newest areas. Recent construction comprises only 22 percent of the housing. Seventy percent of the housing units were built after 1969. Most are single-family homes. The median home value is \$248,490, more than one-and-one-half times the national median. Because <i>Exurbanites</i> cannot take advantage of public transportation, nearly 80 percent of the households own at least two vehicles. Their average commute time to work is comparable to the US average.</p>
	<b>Preferences</b> <p>Because of their lifestage, <i>Exurbanites</i> residents focus on financial security. They consult with financial planners; have IRA accounts; own shares in money market funds, mutual funds, and tax-exempt funds; own common stock; and track their investments online. They are very physically active; they lift weights, practice yoga, and jog to stay fit. They also go boating, hiking, and kayaking; play Frisbee; take photos; and go bird watching. They participate in civic activities, serve on committees of local organizations, address public meetings, and help with fundraising. Many are members of charitable organizations. To improve their properties, <i>Exurbanites</i> residents work on their homes, lawns, and gardens. They buy lawn and garden care products, shrubs, and plants</p>

Laptops and Lattes	<b>Demographic</b> <p>With no home ownership or child-rearing responsibilities, residents of <i>Laptops and Lattes</i> neighborhoods enjoy single life in the big city. Most households are singles who live alone or with a roommate. The average household size remains constant at 1.8. Although this segment is slowly increasing, it is maturing and diversifying more quickly. The median age is 38.7 years. Although most of the population is white, Asians represent 10.4 percent of the total population.</p>
	<b>Socioeconomic</b> <p>This segment is affluent; the median household income of \$93,899 supports these residents. The median net worth is \$285,718. <i>Laptops and Lattes</i> residents are highly educated. More than 70 percent of residents aged 25 years and older hold a bachelor's or graduate degree; approximately 90 percent have attended college. The percentage enrolled in college or graduate school is more than three times the national level. Two-thirds of the employed residents work in professional or management positions, especially in the scientific, technical, finance, insurance, educational services, health care, and information industry sectors. More than half receive investment income; 19 percent earn self-employment income.</p>
	<b>Residential</b> <p><i>Laptops and Lattes</i> residents prefer to live in major metropolitan areas, and they are more likely to rent than own their homes; home ownership is at 39 percent. The majority of housing is apartments in multiunit buildings, especially those with 20 or more units. These neighborhoods are older and virtually untouched by urban renewal. Although 38 percent of the housing units were built before 1940, they are not inexpensive. The average gross rent is 85 percent higher than the US level, third highest of the Tapestry segments. The median home value is \$634,295, second only to <i>Top Rung</i>. Thirty percent do not own a vehicle.</p>
	<b>Preferences</b> <p>Cosmopolitan, connected, and politically liberal, <i>Laptops and Lattes</i> residents rely on their web-enabled cell phones instead of laptops to communicate. After the college segments, this is the top market to own an iPod and laptop or notebook computer. They go online to check e-mail, trade and track investments, review the latest news, arrange travel, and shop on sites such as amazon.com, ebay.com, and barnesandnoble.com. These residents travel, especially abroad, and enjoy a variety of vacations, such as backpacking, hiking, and beach trips. They shop at Target for essentials and luxuries at high-end department and home stores. Residents exercise regularly at a health club and practice yoga, go downhill skiing, play tennis, jog, and bike.</p>

Urban Chic	<b>Demographic</b> <i>Urban Chic</i> residents are professionals who live a sophisticated, exclusive lifestyle. More than half of these households are married-couple families, similar to the US proportion. Fewer than half of them have children. Unlike the United States, there is a smaller proportion of single parents and a higher proportion of singles and shared households. The median age of 42.7 years is older than the US median of 37 years, while the diversity index of 51 is lower than the US figure of 61.
	<b>Socioeconomic</b> A median household income of \$87,202 and a median net worth of \$314,496 enable residents of <i>Urban Chic</i> neighborhoods to live in style. They are well-educated; more than half of residents aged 25 years and older hold a bachelor's or graduate degree; 80 percent have attended college. They work in a variety of occupations, especially professional, management, and sales positions in the scientific and technical services, educational services, and health care industry sectors. Twenty percent of these households earn income from self-employment ventures; 55 percent receive additional income from investments.
	<b>Residential</b> <i>Urban Chic</i> neighborhoods parallel the United States for housing type and home ownership. Homes range in age from pre-World War II to post-2000, and types from high-rises to single-family houses. Sixty-three percent of the housing is single-family; 27 percent is apartments in multiunit buildings. The rate of home ownership is 66 percent. The median home value is \$536,367, more than three times the US median.
	<b>Preferences</b> <i>Urban Chic</i> residents travel extensively, visit museums, attend dance performances, shop at upscale stores, and do volunteer work. To stay fit, they downhill ski; go backpacking, hiking, and biking; practice yoga; do aerobics; play tennis; and lift weights. They buy natural or organic food and take a multitude of vitamins and dietary supplements. They drink imported wine and truly appreciate a good cup of coffee. These busy, tech-savvy residents use PCs extensively. This is a top segment to own an Apple computer. They go online to arrange travel; get the latest news; check their investment portfolios; trade stocks; and buy books, clothes, flowers, and tickets to concerts and sports events. They seldom watch TV; however, their favorite channels broadcast news programs and documentaries

Up and Coming Families	<b>Demographic</b> With an annual household growth rate of 4.56 percent, <i>Up and Coming Families</i> represents Tapestry Segmentation's second highest household growth market. A mix of Generation Xers and Baby Boomers with a median age of 31.9 years, this segment is the youngest of Tapestry Segmentation's affluent family markets. Residents of these neighborhoods are young, affluent families with younger children. Eighty percent of the households are families. Most of the residents are white; however, diversity is increasing as the segment grows.
	<b>Socioeconomic</b> Beginning their careers, residents of <i>Up and Coming Families</i> are earning above-average incomes. The median household income is \$76,135, higher than the national median. The median net worth is \$175,142. Nearly two-thirds of the residents aged 25 years and older have attended college; more than one in five holds a bachelor's degree. Labor force participation is well above average at 71 percent; unemployment is low. Ninety-one percent of households earn income from wages and salaries. Although half of the households have children, they also have working parents.
	<b>Residential</b> In the suburban outskirts of midsized metropolitan areas with populations higher than 250,000, approximately half of <i>Up and Coming Families</i> neighborhoods are concentrated in the South, the other half in the West and Midwest. Most residents live in new single-family housing; more than half the housing units were built in the last 10 years. Home ownership is at 83 percent. The median home value is \$175,637.
	<b>Preferences</b> Family and home dictate the products these residents buy. Many are beginning or expanding their families, so baby equipment, children's clothing, and toys are essential purchases. Because many are first-time homeowners, basic household furniture and lawn fertilizer, weed control, and insecticide products are important. Car loans and mortgage payments are major household budget items. They are most likely to own or lease an SUV or a minivan. They eat out at family restaurants, especially on the weekends, and buy fast food at the drive-through or for takeout.

In Style	<b>Demographic</b> <i>In Style</i> residents live in the suburbs but prefer the city lifestyle. Professional couples predominate. Household distributions by type are similar to those of the United States. Married-couple families represent 54 percent of households. Households without children (married couples without children, single-person, shared, and other family types), comprise more than two-thirds of all households. This count is increasing. The population is slightly older, with a median age of 40 years. There is little diversity in these neighborhoods.
	<b>Socioeconomic</b> <i>In Style</i> residents are prosperous, with a median household income of \$70,745 and a median net worth of \$182,665. Wages and salaries provide income for 84 percent of the households; 47 percent also receive some form of investment income. <i>In Style</i> residents are more educated compared to the US level: 42 percent of the population aged 25 years and older hold a bachelor's or graduate degree. Labor force participation is 68.5 percent; unemployment is 8.4 percent. Forty-six percent of employed residents have professional or management positions, with above average concentrations in the finance, insurance, health care, technical services, and education industry sectors.
	<b>Residential</b> <i>In Style</i> residents live in affluent neighborhoods of metropolitan areas across the country. More suburban than urban, they embrace an urbane lifestyle; 14 percent prefer townhouses to traditional single-family homes chosen by 56 percent of the households. The median home value is \$218,289. The 68 percent rate of home ownership is just slightly above average. More than three-quarters of the housing was built in the last 30 years.
	<b>Preferences</b> Computer savvy <i>In Style</i> residents go online daily to research real estate information; do their banking; track investments; trade stocks; book travel; and buy computer hardware or software, concert tickets, or tickets to sporting events. They use a financial planner and invest in stocks, bonds, money market funds, money market bank accounts, and securities. To maintain their homes, they hire professional household cleaning services and contractors to remodel their kitchens. Residents stay fit by exercising, eating a healthy diet to control their weight, buying low-fat foods, and taking vitamins. They attend live musical performances and gamble at casinos. They take domestic vacations to hike, golf, and go backpacking.

Prosperous Empty Nesters	<b>Demographic</b> Approximately 6 in 10 householders in <i>Prosperous Empty Nesters</i> neighborhoods are aged 55 years or older. Forty percent of the households are composed of married couples with no children living at home. Residents are enjoying the move from child-rearing to retirement. The median age is 48.9 years. Population in this segment is increasing slowly, at 0.53 percent annually; however, the pace will probably accelerate as the Baby Boomers mature. <i>Prosperous Empty Nesters</i> residents are not ethnically diverse; approximately 90 percent are white.
	<b>Socioeconomic</b> With a median net worth of \$261,595, <i>Prosperous Empty Nesters</i> invest prudently for the future. The median household income is \$67,295. Although 71 percent of the households earn income from wages and salaries, 59 percent receive investment income, 30 percent collect Social Security benefits, and 28 percent receive retirement income. Forty-one percent of residents aged 25 years and older hold bachelor's or graduate degrees; nearly 70 percent have attended college. Many residents who are still working have solid professional and management careers, especially in the education and health care industry sectors.
	<b>Residential</b> These residents live in established neighborhoods located throughout the United States. These neighborhoods experience little turnover from year to year. Seventy-seven percent of the housing was built before 1980. Most of the housing is single-family, with a median home value of \$193,784.

	<p><b>Preferences</b></p> <p><i>Prosperous Empty Nesters</i> residents value their health and financial well-being. Their investments include annuities, certificates of deposit held longer than six months, mutual funds, money market funds, tax-exempt funds, and common stock. Residents exercise regularly and take a multitude of vitamins. They refinish furniture and play golf. Households are likely to own or lease a luxury car. Residents take pride in their homes and communities, so home remodeling, improvements, and lawn care are priorities. Residents will join a civic club or charitable organization, help with fund-raising, write to a radio station or newspaper editor, and volunteer. They travel extensively in the United States and abroad.</p>
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Silver and Gold	<p><b>Demographic</b></p> <p>With a median age of 60.1 years, <i>Silver and Gold</i> residents are the second oldest of the Tapestry segments. More than 70 percent are aged 55 years or older. Most residents have retired from professional occupations. Half of the households are composed of married couples without children. This segment is small, less than 1 percent of all US households; however, annual household growth is 2.35 percent since 2000. Residents of these neighborhoods are not ethnically diverse; 93 percent of them are white.</p>
	<p><b>Socioeconomics</b></p> <p>These are wealthy, educated seniors. Their median household income is \$67,806, and their median net worth is \$331,108. Fifty-six percent of the households still earn wages or salaries, half collect Social Security benefits, 63 percent receive investment income, and 35 percent collect retirement income. Labor force participation is 44 percent, well below the US level. The percentage of those who work from home is higher than the US worker percentage; nearly one-fourth of employed residents are self-employed, also higher than the US level.</p>
	<p><b>Residential</b></p> <p>Neighborhoods are exclusive, with a median home value of \$274,320 and a home ownership rate of 83 percent. Because these seniors have moved to newer single-family homes, they are not living in the homes where they raised their children.</p>
	<p><b>Preferences</b></p> <p><i>Silver and Gold</i> residents have the free time and resources to pursue their interests. They travel domestically and abroad including cruise vacations. They are also interested in home improvement and remodeling projects. Although they own the tools and are interested in home improvement and remodeling projects, they are more likely to contract for remodeling and housecleaning services. Active in their communities, they join civic clubs, participate in local civic issues, and write to newspaper or magazine editors. They prefer to shop by phone from catalogs such as L.L. Bean and Lands' End. They eat out, attend classical music performances, and relax with a glass of wine. Favorite restaurants include Outback Steakhouse, Cracker Barrel, and Applebee's.</p>

Enterprising Professionals	<p><b>Demographic</b></p> <p>Young, educated, single, married, working professionals, residents of <i>Enterprising Professionals</i> neighborhoods have a median age of 32.4 years. Forty-three percent of the households are singles who live alone or share housing with roommates, and 43 percent are married couple families. With an annual household growth of 1.95 percent per year since 2000, the households in this segment comprise approximately 2 percent of total US households. The diversity of the population is similar to that of the United States. Most of the residents are white; however, 12.4 percent are Asian.</p>
	<p><b>Socioeconomic</b></p> <p>Median household income is \$69,779 and median net worth is \$76,852. Ninety percent of the households earn income from wages and salaries; 39 percent receive income from investments. This is an educated group: approximately half of the population aged 25 years and older hold a bachelor's or graduate degree; more than three in four have attended college. These working professionals are employed in various jobs, especially in management, finance, computer, sales, and office/administrative support. Labor force participation is 73.4 percent</p>



	<b>Residential</b> <i>Enterprising Professionals</i> residents move frequently to find growth opportunities and better jobs. Forty-six percent of the households are located in the South, 29 percent are in the West, and 20 percent are in the Midwest. They prefer to own instead of rent in newer neighborhoods of townhouses or apartments. The median value is \$223,479 for owner-occupied houses. For those who rent, the average gross rent is 36 percent higher than the US average.
	<b>Preferences</b> They are young and mobile with growing consumer clout. They rely on cell phones and e-mail to stay in touch. They go online to download videos and music, track their investments, and shop for items. They own laptops, video game systems, and digital camcorders. They love to travel abroad and in the United States often. They play video games, visit theme parks, jog, and swim. They read computer, science, and technology magazines and listen to alternative, public-all-talk, and sports radio. They eat out at Cheesecake Factory and Chili's Grill and Bar.

Cozy and Comfortable	<b>Demographic</b> <i>Cozy and Comfortable</i> residents are middle-aged married couples who are comfortably settled in their single-family homes in older neighborhoods. The median age of 42.3 years is five years older than the US median of 37 years. Most residents are married without children or married couples with school-aged or adult children. With 8.7 million people, this is a relatively large segment that is growing moderately by 0.48 percent annually since 2000. Most of these residents are white.
	<b>Socioeconomic</b> Although the labor force is older, they are in no hurry to retire. The labor force participation rate is 65.7 percent; the unemployment figure is 9.3 percent. Employed residents work in professional, managerial, and service occupations in a variety of industry sectors. Occupation distributions are similar to US values. The median household income is \$65,665. Income for 80 percent of the households is earned from wages and salaries. Forty-six percent of households receive investment income. Their median net worth is \$181,850.
	<b>Residential</b> <i>Cozy and Comfortable</i> neighborhoods are located in suburban areas, primarily in the Midwest, Northeast, and South. Many residents are still living in the homes in which they raised their children. Single-family structures make up 88 percent of the household inventory. The median home value is \$154,868. Sixty-two percent of the housing units were built before 1970. Home ownership is at 85 percent.
	<b>Preferences</b> <i>Cozy and Comfortable</i> residents prefer to own certificates of deposit and consult a financial planner. They typically hold a second mortgage, a new car loan, a home equity line of credit, and a universal life insurance policy. Home improvement and remodeling projects are important to them. They attend ice hockey games, watch science fiction movies on DVD, and take domestic vacations. They eat at family restaurants such as Friendly's, Bob Evans Farms, and Big Boy. Going online isn't a priority, so they own older home computers. Television is very important; many households own four or more sets so they won't miss any of their favorite shows. They watch sports, particularly football, and news programs. Reading the Sunday newspaper is part of the routine for many.

Metropolitans	<b>Demographic</b> Residents of <i>Metropolitans</i> communities prefer to live in older city neighborhoods. Approximately half of these households are singles who live alone or with others; 40 percent are married-couple families. One in four of the residents is aged 20–34 years; the median age is 37.7 years. Diversity is low; most of the population is white.
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	<b>Socioeconomic</b> The labor force participation rate of 67.2 percent is well above average; the unemployment rate is 8.3 percent. Half of the residents who are employed work in professional or managerial positions. More than 75 percent of the population aged 25 years and older have attended college or completed a degree program. Thirty percent have earned a bachelor's degree, and 23 percent hold a graduate degree. The median household income is \$60,191; the median net worth is \$102,460. Nearly half of the households earn extra income from interest, dividends, and rental properties.
	<b>Residential</b> Residents of <i>Metropolitans</i> neighborhoods live in an eclectic mix of single-family homes and multiunit buildings. Sixty percent of the housing units were built before 1960. These neighborhoods change slowly; since 2000, the annual household growth is 0.28 percent. The home ownership rate is 60 percent, and the median home value is \$192,372.
	<b>Preferences</b> These residents pursue an active, urbane lifestyle. They travel frequently for business and pleasure. They listen to jazz, classical, public, and alternative music radio. They go to rock concerts, watch foreign films on DVD, read women's fashion magazines, and play a musical instrument. They also practice yoga and go kayaking, hiking/backpacking, and water and snow skiing. Active members of their communities, <i>Metropolitans</i> residents join civic clubs, volunteer for environmental causes, address public meetings, and work for a political party or candidate. They also belong to business clubs and contribute to PBS. They prefer to own and use a laptop computer, preferably an Apple. They go online daily to download music and buy books, airline tickets, CDs, and clothes. Planning for the future, residents own shares in investment funds, contribute to IRA savings accounts, and hold large life insurance policies.
Metro Renters	<b>Demographic</b> Young, educated singles, residents of <i>Metro Renters</i> neighborhoods are just beginning their professional careers in some of the largest US cities such as New York, Chicago, and Los Angeles. Residents will sometimes share housing with a roommate to help defray the cost of their high rent. Households are either single person or shared. The median age of 33.6 years is younger than the US median of 37 years. Approximately 30 percent are in their 20s; 14 percent are in their early 30s. This younger population is also more diverse than the US population; 11.5 percent of the residents are Asian.
	<b>Socioeconomic</b> The median household income is \$56,311 and rising. Approximately 60 percent of employed residents work in professional and management occupations, most in the service industry sector. One of Tapestry Segmentation's most educated markets, more than one in four <i>Metro Renters</i> residents aged 25 years or older holds a graduate degree; one in three has earned a bachelor's degree. More than 80 percent of these residents have attended college; 17 percent are still enrolled in undergraduate or graduate school. Although their median net worth of \$22,097 seems low, 78 percent of these residents are renting and don't own a home, often considered a primary household asset.
	<b>Residential</b> <i>Metro Renters</i> neighborhoods are found in the largest metropolitan centers across the United States. Approximately 90 percent of the housing is apartments; 37 percent in high-rise buildings. Median home value in these neighborhoods is \$270,583.
	<b>Preferences</b> Because they rent, "home and hearth" products are low priority, although they will buy new furniture from stores such as Crate & Barrel or Pier One Imports. They buy clothes and other merchandise from traditional stores or online from favorites such as Banana Republic, Gap, Nordstrom, amazon.com, and barnesandnoble.com. Active <i>Metro Renters</i> residents work out regularly at clubs, play tennis and volleyball, practice yoga, ski, and jog. They take advantage of their urban milieu; they go dancing, visit museums, attend classical or rock concerts, go to karaoke nights and the movies, and eat out. Residents enjoy traveling domestically and overseas and drinking domestic and imported beer and wine. They rent foreign and classic films on DVD. They go online frequently to look for jobs, make travel arrangements, download music, research real estate, watch videos, and shop. Politically, these neighborhoods are liberal.



Old and Newcomers	<b>Demographics</b> Residents of these transitional neighborhoods are either beginning their careers or retiring. They range in age from their 20s to 75 and older. Their median age of 37.2 years splits this disparity. There are more singles and shared households than families in these neighborhoods. Most of the residents are white; however, the diversity closely resembles that of the United States.
	<b>Socioeconomic</b> Sixty-four percent are in the labor force; the unemployment rate is 10.6 percent. The median household income of \$44,601 and the median net worth of \$23,498 are below the US medians. Educational attainment, college, and graduate school enrollment are above average. The distribution of employees by occupation is similar to that of the United States.
	<b>Residential</b> Spread throughout metropolitan areas of the United States, <i>Old and Newcomers</i> neighborhoods sustain a lot of transition. More than half the population aged five years and older has moved in the last five years. More than 60 percent rent; approximately half in mid- or high-rise buildings, with nearly 14 percent in two- to four-unit buildings. Six in ten housing units were built between 1969 and 1989. The average gross rent in these neighborhoods is similar to the US average. The median home value is \$149,772.
	<b>Preferences</b> Their purchases reflect the unencumbered lifestyles of singles and renters. They spend less at the grocery store than larger households. A domestic subcompact or compact car serves them well. They arrange their vacations to keep in touch with out-of-town relatives and friends. They read fiction and nonfiction, newspapers, and magazines. They watch TV, listen to contemporary hits radio, go to the movies, and rent DVDs to view at home. Their leisure activities are as varied as their ages. They exercise by walking, swimming, and going bowling.
Young and Restless	<b>Demographics</b> Change is the constant for <i>Young and Restless</i> households. This young, on-the-go population has a median age of 28.6 years. Approximately two-thirds of them are younger than 35. Fifty-eight percent of these households are either single person or shared. Neighborhoods are diverse. Fifty-six percent of the residents are white; however, an above-average representation of blacks, Hispanics, and Asians also live in these neighborhoods.
	<b>Socioeconomic</b> The median household income is \$46,185, and the median net worth is \$12,857. Although the median household income is below the US median; only 23 percent of these residents have children, giving them more disposable income than segments with similar income levels. They are educated; 36 percent aged 25 years or older hold a bachelor's or graduate degree; 69 percent have attended college. These ethnically diverse folks are very career-oriented. Seventy-two percent are in the labor force; 10.2 percent are unemployed. Seventy-four percent of the females are working. Most employed residents have professional, sales, service, or office/administration support jobs.
	<b>Residential</b> These neighborhoods are in metropolitan areas in the South, West, and Midwest. Ranked fifth of the Tapestry segments for renters, 85 percent rent apartments in multiunit buildings. Most of the housing was built in the 1970s and 1980s. They don't mind moving for better jobs; 85 percent have moved in the last five years.
	<b>Preferences</b> These young, single professionals are pursuing their careers and living a busy lifestyle. They are technologically savvy and take advantage of the convenience provided by many products and services. They go online to communicate with friends and family, shop, bank, and look for jobs. They read magazines to stay current on the latest lifestyle and entertainment trends and are just as likely to read a music magazine as a business publication. They go online for the latest news and sports. Television viewing is average. Radio is a good way to reach them; they listen to urban and contemporary hit music. Seeing movies at theaters and on DVD is a major source of entertainment. They also enjoy going to bars or nightclubs. Their busy schedule also includes working out at the gym and playing various sports.

College Towns	<b>Demographics</b> With a median age of 24.4 years, <i>College Towns</i> is the third youngest of all the Tapestry segments. Most residents are aged between 18 and 34 years and live in single-person or shared households. One-fourth of households are occupied by married-couple families. The race profile of this market is somewhat similar to the US profile. Approximately three-fourths of the residents are white.
	<b>Socioeconomic</b> <i>College Towns</i> residents are focused on their education; 59 percent are enrolled in college or graduate school. After graduation, other residents stayed on to teach or do research. Because many students only work part-time, the median household income of \$31,271 ranks near the low end. The median net worth is \$12,027. Fifty-two percent of the employed residents work part-time. This segment ranks second to the <i>Dorms to Diplomas</i> segment for the highest proportion of part-time employment. Most of the employed residents work in the service industry, holding on- and off-campus jobs in educational services, health care, and food preparation.
	<b>Residential</b> One in seven <i>College Towns</i> residents lives in a dorm on campus. Students in off-campus housing live in low-income apartment rentals. Thirty percent of housing is owner-occupied, typically by town residents, who live with their families in single-family dwellings. The median home value is \$137,707. One-third of the housing is single-family structures.
	<b>Preferences</b> Convenience dictates food choices; they usually buy ready-made, easy-to-prepare, or frozen meals, frozen pasta, pizza crusts, and peanut butter and jelly at the closest grocery store. With their busy lifestyles, they frequently eat out or order in from fast-food restaurants, particularly McDonald's, Wendy's, and pizza outlets during the week. These computer-savvy students own laptop computers or expensive desktop personal computers. They go online to research assignments, look for jobs, check e-mail, and download music. They buy and use cell phones and accessories. Their lifestyle is very casual. They rank high for participating in nearly every outdoor sport and athletic activity. <i>College Towns</i> residents attend country music and rock concerts and college basketball and football games, play pool, and go to movies and bars. They shop at discount stores but prefer to buy branded clothes from Old Navy, Gap, and Target.

Dorms to Diplomas	<b>Demographics</b> With a median age of 21.7 years, <i>Dorms to Diplomas</i> residents are college students who are the youngest of the Tapestry segments. Seventy-nine percent of the residents are enrolled in a college or university. Forty-two percent share housing with one or more roommates; 38 percent live in single-person dwellings. Ethnic diversity is slightly lower in this segment than in the United States. Seventy-one percent of the residents are white; 10 percent are black.
	<b>Socioeconomic</b> To support themselves while they attend school, nearly three-fourths of the employed residents work part-time in low-paying service jobs. The educational institutions at the center of these communities employ many residents, especially in the educational services, accommodation/food services, and retail trade industry sectors. The median household income for this segment is \$19,089; the median net worth is \$8,899. Fifty-five percent of the residents aged 25 years and older hold a bachelor's or graduate degree.
	<b>Residential</b> Forty-three percent of the residents in the <i>Dorms to Diplomas</i> communities live in dormitories on campus; the remainder rent apartments in multiunit buildings off campus. Ninety percent rent. Most of these communities are in urban locations or part of a major campus that is the core of an urban cluster. The median home value for owner-occupied housing is \$140,966.

	<p><b>Preferences</b></p> <p>Spending patterns of <i>Dorms to Diplomas</i> residents reflect their carefree lifestyle and their focus on their education. When they do not eat at the dining hall or in one of the nearby fast-food restaurants, they use convenient prepared and frozen foods. Owning a personal computer is a necessity; they prefer laptops. Internet access is available to all and used frequently to research school assignments, find employment opportunities, make travel plans, and keep in touch with friends and family. Most own cell phones, iPods, and digital cameras. They download music and share videos. They bank online. Aside from the exercise they get from participating in college sports and walking or jogging around campus, they work out at on-campus gyms. Favorite pastimes include playing football, basketball, volleyball, and practicing yoga. They eat low-fat, low-calorie food. They also attend rock concerts, go dancing, and go to the movies and the theater. Although they often shop at discount stores, they prefer branded clothing from American Eagle and Old Navy.</p>
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Source: ESRI Tapestry Segmentation Reference Guide

Table 15. Company Operated Outlet Addresses

Address	City	State	Zip code	Estimated Sales (\$)
1079 Delaware Ave.	Marysville	OH	43040	800,000
1085 W. 5th Ave.	Columbus	OH	43212	600,000
1187 Polaris Parkway	Columbus	OH	43240	1000,000
1315 W. Lane Ave.	Columbus	OH	43221	800,000
1355 Georgesville Rd.	Columbus	OH	43228	680,000
1570 Olentangy River Rd.	Columbus	OH	43212	640,000
1626 N. Memorial Dr.	Lancaster	OH	43130	680,000
1732 Stringtown Rd.	Grove City	OH	43123	800,000
1784 N. High St.	Columbus	OH	43201	720,000
19 W. Bridge st.	Dublin	OH	43017	720,000
199 E. Campus View Blvd.	Columbus	OH	43235	480,000
2040 Polaris Parkway	Columbus	OH	43240	160,000
2051 Henderson Rd.	Upper Arlington	OH	43220	600,000
21 Neverland Dr.	Lewis Center	OH	43035	840,000
2191 Stringtown Rd.	Grove City	OH	43123	760,000
220 Market St.	New Albany	OH	43054	480,000
2450 E. Main St.	Columbus	OH	43209	680,000
2560 Brice Rd.	Reynoldsburg	OH	43068	600,000
3235 Tremont Rd.	Columbus	OH	43221	800,000
339 N. Front St.	Columbus	OH	43215	400,000
3416 N. High St.	Columbus	OH	43214	440,000
3680 Fishinger Blvd.	Hilliard	OH	43026	640,000
3954 Morse Crossing	Columbus	OH	43219	680,000
3975 Powell Rd.	Powell	OH	43065	320,000
4784 Morse Rd.	Columbus	OH	43230	560,000
533 S. State St.	Westerville	OH	43081	1200,000
6130 Gender Rd.	Canal Winchester	OH	43110	960,000
6264 E. Broad St.	Columbus	OH	43213	640,000
6490 Sawmill Rd.	Columbus	OH	43235	760,000
650 S. 3rd St.	Columbus	OH	43206	560,000
7176 N. High St.	Worthington	OH	43085	800,000
7305 E. State Route 37	Sunbury	OH	43074	600,000
8070 E. Broad St.	Reynoldsburg	OH	43068	800,000
88 E. Broad St.	Columbus	OH	43215	480,000
965 Bethel Rd.	Columbus	OH	43214	640,000

Source: ESRI Business Analyst

## Appendix B: Interview Script

The questions that follow are only indicative. Since a laddering technique will be implemented in order to investigate consumers' underlying motivations for visiting and making purchases at Starbucks, each interview will proceed with a degree of variability based upon individual participant responses. Thus, the form of the interview should adapt to each accordingly.

### Opening Script:

Thank you very much for agreeing to meet with me. Your participation in this research is both valuable and very much appreciated. As you have been informed before, any information you volunteer in this interview is completely confidential. With your permission, I will make notes during the interview with no references to any personally identifiable information. Should you wish at any moment to terminate the interview, or if you would prefer to skip a question, simply let me know. Do you agree to continue with the interview? Do you have any further questions, concerns, or points of clarification before we begin?

How often do you visit Starbucks during a typical week?

Why do you prefer to visit Starbucks?

What do you usually purchase at Starbucks?

Why do you prefer to purchase this at Starbucks?

Think about the Starbucks brand and imagine it were a person.

Who would this brand be?

How would you describe this person?

What personality characteristics would this person have?

In what ways do you associate this person with the brand?

Complete the sentence:

Starbucks is...

The people who shop at Starbucks are...

I am going to read you a list of stores, and then I'd like you to tell me which of these is most similar to Starbucks. Try to give the first answer that comes to mind:

Neiman Marcus, Wal-Mart, JC Penney, Macy's, Nordstrom, Target.

What is it about [Store X] that is most similar to Starbucks? How are the qualities of Starbucks similar to this store?

I am going to read you a list of stores, and then I'd like you to tell me which of these is most similar to Starbucks. Try to give the first answer that comes to mind:

Dunkin Donuts, McDonald's, Tim Horton's, Panera Bread, Cup O Joe, Caribou Coffee.

What is it about [Store X] that is most similar to Starbucks? How are the qualities of Starbucks similar to this store?

Closing Script:

Thank you very much for your time. I appreciate your insights and understanding on this issue. Should you have any further concerns, please do not hesitate to contact myself or the Office of Responsible Research Practices at The Ohio State University.