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**Food Access for UT Austin Students: A Case Study of West Campus  
Student Shopping Behaviors and the Food Environment**

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**Food Access for UT Austin Students: A Case Study of West Campus  
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**by**

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**Report**

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## **Abstract**

### **Food Access for UT Austin Students: A Case Study of West Campus Student Shopping Behaviors and the Food Environment**

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West Campus, the neighborhood located just west of The University of Texas at Austin, is predominantly made up of students. West Campus is known for its fast food, restaurants, shops, bars, liquor stores and towering apartment complexes that charge a steep rent. West Campus also has a grocery store. However, the local grocery store does not have affordable or quality groceries that an individual would expect from a grocery store. Using a survey distributed to students in West Campus, this professional report addresses: whether students are grocery shopping in West Campus, where students living in West Campus do their grocery shopping and if this impacts their ability to eat healthy. In general, it was found that most students living in West Campus are not satisfied with their grocery store options in West Campus and, when possible, will travel further to another grocery store to do their grocery shopping.

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## **Chapter 1: Introduction**

Traditionally, food system research has focused on the growing of food and consuming of food, but recently, there has been a growing interest in the distribution of food or food accessibility in urban areas. Local planners, researchers and consumers are more engaged with and interested in food topics than ever before. It has been recognized by many policymakers, including City Officials at the City of Austin, that many necessary changes are needed, particularly in communities that are food insecure and may face problems of food accessibility.

West Campus, the neighborhood located just west of The University of Texas at Austin, is a neighborhood predominantly made up of students. West Campus is known for its fast food, restaurants, shops, bars, liquor stores and towering apartment complexes that charge a steep rent from students. West Campus even has a grocery store that makes the neighborhood seem like it has everything a student may need. However, the local grocery store does not have affordable or quality groceries that an individual would expect from a grocery store. This brings to question:

- Do students stay in West Campus to do their grocery shopping?
- Where do students living in West Campus do their grocery shopping?
- Does this impact the ability for students to eat healthy?

This study examines the West Campus food environment as well as investigates the grocery shopping behaviors of students living in West Campus by using quantitative and qualitative data. First, a literature review is conducted to better understand the

existing research and studies related to food environments, food accessibility, grocery shopping and student life. Second, using data from the City of Austin's Food Establishments, food retail outlets will be mapped out to better understand the food environment. Following that are findings from a survey that was given to students living in West Campus to gain a better understanding of their grocery shopping behavior and satisfaction with grocery stores in West Campus. An analysis of the survey results is conducted to cross examine different behaviors, perceptions, and transportation options for students grocery shopping. This study hopes to bring a better understanding of the current grocery shopping behaviors of students living in West Campus and what gaps need to be filled.

## **Chapter 2: Literature Review**

The topic of food accessibility and grocery shopping lies at the intersection of various fields including public health, transportation and planning, and economics. The following research defines the food environment and then discusses the importance of food accessibility in urban areas, factors that may impact grocery shopping behaviors, and how these factors affect or influence grocery shopping habits of college students.

### **FOOD ENVIRONMENT**

The body of literature and research on the local food environment, its health effects, and who it impacts has been growing, particularly in response to evidence of “food deserts” in urban areas (Caspi et al., 2012). The food environment is the built and social environments in which people must make their food choices (Minaker et al., 2011).

Aspects of the food environment such as the availability of different types of food stores have recently emerged as a key factor that may contribute to the increased prevalence of obesity and other adverse health effects (Han et al., 2012). Neighborhood food environments have been shown to vary substantially by socio-demographic characteristics of neighborhood residents (Ohri-Vachaspati et al., 2011).

Many studies and data collected on a community’s food environment has been related to the nutritional intake or adverse health effects on residents exposed to different food environments - food environments near their work, residence, school (Smith, 2012) . On average, it has been found that the local food environment does influence the diet and how healthy an individual may eat (Rose and Richards, 2007; Caspi et al., 2012) as

“individuals who live in neighborhoods with access to food stores and restaurants that carry healthier choices are more likely to consume better-quality diets” (Ohri-Vachaspati et al., 2011).

### **Food Deserts**

These underserved communities have been referred to as ‘food deserts.’ Food deserts are defined as neighborhoods that have few food retailers selling fresh produce and have more food retailers selling a number of processed, unhealthful foods (USDA, 2018). It is speculated that food deserts began emerging as issues in urban areas when larger supermarkets began closing their inner city operations, following “white flight” to the suburbs (Walker et al 2010; Eckert and Shelly 2011).

There has been controversy around the term ‘food deserts’ as food deserts often only focus on the geographical proximity of grocery stores, but it has been found that many other factors affect the food insecurity of a community, such as the built environment, affordability and other individual characteristics (Osorio et al., 2013; Evans et al., 2015). Hence, areas apparently well served by fresh food retailers could be ‘food deserts’ for some (Shaw, 2006).

Other terms such as food insecure neighborhoods or food accessibility are being used more often and in lieu of food deserts, in current academic and government studies. Despite the controversy over the term ‘food deserts,’ the overarching theme is still true that access to healthy, affordable food or living in a food insecure neighborhood is a

problem for many residents in urban communities and there are many factors that affect food access.

### **FOOD ACCESSIBILITY**

Many factors have been found to contribute to a community's ability or inability to access food. Food accessibility is the access by individuals to adequate resources to secure food for a nutritious diet. Insufficient food access can affect anyone but primarily affects the urban poor the most (Osorio et al., 2013). Many communities that are underserved by food retailers selling affordable, nutritious foods, result in many adverse health effects for the local residents. This may include diabetes, obesity or even cancer (Eckert and Shelly 2011; Shaw, 2013; Marques et al., 2019). Food insecurity or lack of consistent access to fresh food is a critical consequence of inadequate access to food (Evans et al., 2015).

### **Factors Impacting Food Access in Urban Areas**

Food access is a function of a variety of factors that may include physical factors like spatial proximity and transportation; economical factors such as affordability; or other individual characteristics such as lack of time or knowledge (Evans et al., 2015).

Many urban areas lack a supermarket, thereby limiting access to food retail offering healthy foods for residents (Walker 2010; Freedman and Belle, 2009). While larger supermarkets are often found in suburban and middle-high income neighborhoods, convenience stores, smaller grocery stores and fast food restaurants are more prominent in urban areas and communities of lower-income and color (Freedman and Belle, 2009).

Since people tend to make food choices based on food availability in their immediate neighborhood (Walker et al., 2011; Jiao et al., 2016), a consequence of lack of supermarkets in urban areas has increased the abundance and exposure to energy-dense food readily available at convenience stores and fast-food restaurants (Walker et al., 2010).

Another physical factor that affects a resident's ability to access a grocery store is their access to transportation. "For residents without access to a personal vehicle for transport to food stores outside the immediate neighborhood, residing in a food desert can be even more deleterious" (Walker et al., 2010). Although public transportation may be an option in some cities, low-income residents may face problems such as difficulty affording transportation costs (Rose and Richards, 2004) or difficulty transporting groceries due to weight of the groceries and crowding on the bus (Hagberg and Holmberg, 2017; Shaw, 2016).

Economic factors, such as the affordability of fresh food, can also impact ones access to fresh food. It has been found that residents with a lower income have more difficulty maintaining a healthy diet in a food insecure neighborhood (Walker et al., 2010; Rose and Richards, 2004). Lack of financial resources present a barrier to healthy eating due to the increased cost associated with healthy eating as energy-dense, obseogenic diets are cheaper (Evans et al., 2015, Shaw, 2016). It has been found that low-income residents with a constrained budget may be more concerned with the quantity of food they can afford rather than the nutritional quality or safety of the food (Osorio et al., 2013). One study found food prices in urban food insecure neighborhoods were more

expensive than the market price and the food quality was poorer (Hendrickson et al., 2006). Hendrickson et al. also found that quality of food and few food options were also major barriers identified to shopping within their community (2006).

Rose and Richards (2004) suggest that access to healthy food go beyond the physical and economic factors identified by other researchers to include other factors such as the built environment and individual characteristics. Examples given are unsafe neighborhoods residents must walk through or where bus stops are located (Rose and Richards, 2004). Lack of time due to work schedules, being a single parent, commuting, lack of time to prepare meals and lack of nutritional knowledge or cooking unpackaged foods can result in difficulty accessing healthy food (Rose and Richards, 2004, Shaw, 2016).

An underlying problem of the spatial proximity perspective is its assumption that the presence of food outlets automatically equates to access to appropriate food, thus ignoring other factors that are associated with food security issues such as nutritional value, safety, affordability, and education (Osorio et al., 2013). “Geographical proximity to a food store does not necessarily mean that the consumer will find it attractive [. . .] be financially able to shop there, or possess the expertise to cook and prepare the fruit and vegetables it offers,” (Shaw, 2006, 232).

## **GROCERY SHOPPING**

Supermarkets are the modern food shopping experience and are a crucial part of any food system (Thompson et al., 2013). They have the ability to offer both a choice and



value for their products and therefore access to a grocery store is important (Thompson et al., 2013). Many researchers and policymakers emphasize supermarkets as a pillar of food access because they are the most reliable sources of a wide variety of nutritious and affordable food (Food for All, 2015). Because one is purchasing both consumable and perishable goods, grocery shopping requires a routine to continuously stock up on goods (Hagberg and Holmberg, 2017). Residents with greater access to supermarkets or other food stores selling healthy food in their neighborhoods consume more fresh produce (Food for All, 2015).

### **Food Retail Classifications**

When classifying the food environment, a simple stratification is often used: Supermarkets, grocery stores, specialty stores, convenience stores, and full-service and fast-food restaurants (Smith, 2012; Ohri-Vachaspati, 2011). This simple classification follows the North American Industry Classification System (NAICS) code as it is an existing code assigned to businesses.

Various studies have been conducted to define different classifications for different food retail outlets and no one definition is used consistently. Below are definitions taken from various studies:

- Supermarket & Grocery Store – 4 or more cash registers, full services among butcher, deli and bakery, 20 or more fruits and vegetables, fresh meats, fresh milk, and fresh produce section (Han et al., 2012). Some studies differentiated

supermarket and grocery store based on sales or floor size, but overall products are the same (Ohri-Vachaspati, 2011).

- Convenience Store – may have at least 2 cash registers, no fresh meats, less than 10 fruits and vegetables, may sell gasoline (Han et al., 2012,) and sugar-sweetened drinks (Smith, 2013).

Where an individual decides to shop will have an impact on the price and quality of the products available and may influence what an individual decides to eat.

### **Grocery Shopping Behaviors**

Grocery shopping behavior can be determined by the frequency at which one shops, distance traveled to the most frequented grocery store, and the choice of travel mode (Hagberg and Holmberg; 2017, Jiao et al., 2016). Hagberg and Holmberg (2017) found that of 1,694 respondents, 90% of them went grocery shopping at least once a week and nearly 66% of respondents buy food from a grocery store several times a week.

There are various reasons residents may choose to travel a distance to their preferred grocery store. Dissatisfaction with the products at the local grocery store and access to alternative or more attractive shopping options has been shown to cause higher levels of traveling to a grocery store further away (Hsu et al., 2010). Zenk et al. found that residents in neighborhoods without supermarkets, or in food deserts, were forced to travel and shop further from their homes. This was due to the affordability, quality and options of food in their local neighborhood (2014). Minaker et al. (2016) also found that

affordability, food quality and proximity were important factors when determining where to go grocery shopping.

Frequency and distance of shopping strongly influence the choice of travel mode one might choose (Hagberg and Holmberg, 2017; Jiao et al., 2016). Multiple studies found that car and access to a car is the dominant mode of travel when it comes traveling to the grocery store (Jiao et al., 2011; Hagberg and Holmberg, 2017). Dieleman et al. (2002) found that “[i]f people own a car, they use it” (p.524). Other modes of transportation to the grocery store, such as walking and biking are more common in dense, urban areas (Hagberg and Holmberg, 2017). Public transport has been found to be the most uncommon mode of transportation for the purpose of grocery shopping in the US (Hagberg and Holmberg, 2017).

Grocery delivery services are an increasing service in urban areas. Although online and grocery delivery options are increasingly being offered as a service through existing and new companies, it only represents 1-3% of the grocery shopping market (Hagberg and Holmberg, 2017). This means the physical presence needed for grocery shopping and travel are most prevalent.

#### **STUDENT SHOPPING BEHAVIORS**

College students may face similar lifestyles as other individuals living in low-income communities. Attending college requires time and money. Rather than spending time working full-time, students are often on-campus or spending time studying for classes. This leaves little time to travel to grocery shop, especially if there are no grocery

stores nearby. And because a full-time student has the responsibilities of attending classes, studying, and other extracurricular activities, it can make it difficult to hold down a job, or a job that will pay a substantial amount. Having a job also takes more time away from being able to go grocery shopping. Not having money or time to access a grocery store with nutritious food forces students to buy cheap, less-nutritious food close by. Although Hagberg and Holmberg study found that nearly all households went shopping once a week and two thirds of households went grocery shopping multiple times a week, Hsu et al. (2010) study found that only one third of college students went grocery shopping once a week.

People tend to make food choices based on the food environment in their neighborhoods (Walker et al., 2010; Zenk et al., 2014). This is particularly true and concerning for college students, where home, work, and school environments are often geographically close (Horacek et al., 2013). There is a complex interplay taking place for college students, where personal environmental, and social factors influence a students diet habits and grocery shopping behaviors (Horacek et al., 2013).

As addressed above, there is a link between populations living without easy access to healthy food and adverse health impacts that they may face. This is particularly important for college students. The majority of students enrolled in college are between the ages of 18 and 24 years old (Tam et al., 2017). This is a time when young adults are transitioning into a more independent lifestyle and developing their own personal habits, including managing their diet and grocery shopping behaviors (Delians et al., 2014; Tam et al. 2017; Marques et al., 2019; Llanaj et al., 2018). Food intake and dietary habits

developed as young adults can be a predictor of personal health and weight in later stages of life (Delians et al., 2014; Llanaj et al., 2018).

Various studies have produced different results as to what most influences the food purchasing behaviors of college students. Two studies found that food purchasing behaviors in young adults is influenced by taste, while other factors that followed include, convenience, time and cost. In general, healthiness was found to be the least reported factor influencing student eating behaviors (Tam et al., 2017; Horacek, 2013; Delians et al., 2014). It was also found that “Lack of discipline and time, self-control, social support, product prices (costs) and limited budgets, and the availability of and access to (healthy) food options were reported as important influencing factors of students’ eating behaviours” (Delians et al., 2014). Overall, a US study showed there was a decrease in the intake of fruits and vegetables in college students as well as a drastic increase in fat and alcohol consumption (Delians et al., 2014; Marquis et al., 2019).

#### **UNIVERSITY LIFE**

A college campus is where students live, work, and play (Horacek et al., 2013). One study found that college students spend anywhere from 5 to 30 hours on campus a week and live within a close proximity to campus (Tam et al., 2017). Students attending university are also associated with gaining weight or the ‘Freshmen 15’ as they begin their young adult life and become responsible for their own grocery shopping habits and eating behaviors (Marquies et al., 2019; Tam et al., 2017). One study found that students “living on-campus gained more weight than students living off-campus, however,

students living off-campus consumed less frequent meals and had lower-quality dietary intake” (Horacek et al., 2013). One researcher noted how the college campus has changed over the last decade as opportunities to eat energy-dense foods are omnipresent or constantly encountered (Delians et al., 2014).

Horacek et al. conducted an assessment on the food store environment for 15 postsecondary campuses (2013). Ultimately, it was found that “grocery stores near college campuses provided a wide array of healthful alternatives, convenience stores on and near campus and campus vending machines provide few healthful foods and are more obesogenic (Horacek et al. 2013). Horacek et al., also found that healthier items at convenience stores cost more compared to the products counterpart at alternatives grocery stores which could negatively impact healthful food purchasing if students can not access another grocery store (2013). The food environment on campus and in a student’s neighborhood will influence the students personal eating behavior (Smith et al., 2013).

This complex interplay between a student’s personal habits and the immediate environment has a great influence on the development of their diet. Students may also struggle financially. The cost of food may influence a student to choose a cheaper, less nutrient meal instead of more expensive healthy food.

## **CONCLUSION**

This review of relevant literature presented existing research on food environments, food accessibility, grocery shopping, and student life. This existing

literature, as well as the research and methodology that follows, aims to fill the literature gap on the grocery shopping behaviors of university students. University students face similar physical and economic challenges as low-income or communities of color traditionally face, as well as other cultural and social constraints that may create a barrier to accessing healthy food.

## **Chapter 3: Background**

Researching and understanding the background on the food system studies conducted within the City of Austin, understanding the history of West Campus and how it came to be, and getting a sense of the University food offerings gives a context to this report.

### **CITY OF AUSTIN**

The City of Austin is one of a few cities taking action on understanding and researching food systems in urban areas. Although many of their reports are looking at the entire city, some information on certain neighborhoods or zip codes is relevant to this report.

In 2014, the City of Austin hired the City's first Food Policy Manager. His role is to provide leadership and coordination between City departments and community stakeholders around sustainable food policies and initiatives ("About | AustinTexas.gov - The Official Website of the City of Austin," n.d.). Many reports and studies have been conducted by the Office of Sustainability and Food Policy Manager, all of which aim to better understand Austin's current food system, measure improvements, and inform and engage local residents.

In 2016, in response to a City Council resolution, the Office of Sustainability created the Austin Healthy Food Access Initiative: *Improving Access to Good and Affordable Food*. This report identified 12 zip codes that were labeled "Food Access



Priority Areas” (Athens et al., 2016). West Campus, located in zip code 78705, is labeled as a priority area.

The Office of Sustainability has worked with local non-profits to create programs that bring healthy, nutritious foods to zip codes without grocery stores. This includes the Healthy Corner Store initiative in which the City is working with The Food Trust and Go Austin/Vamos Austin to incentivize convenience stores and gas stations to carry healthy foods. The City also partners with the Sustainable Food Center to organize farm stands at elementary schools to offer discounted fresh fruits and vegetables to parents when picking up their children. These great initiatives have mainly be taking place in South, Southeast and North Austin neighborhoods (Office of Sustainability, 2016). Many Farmers Markets are also located on various days of the week throughout Austin; however, the closest one to West Campus is 2 miles away, Saturday mornings, downtown.

The Austin Food Environment Analysis conducted by the City surveyed food retail outlets including convenience stores, markets, and grocery stores, to assess the healthfulness of available food items. The Office of Sustainability identified four major barriers to accessing food: low proximity, lower household income, fewer mobility options, and less healthy food availability. A map of the City was then created demonstrating where, what and how many of these barriers neighborhoods face that impact their ability to accessing healthy food. Ultimately, West Campus was found to face multiple barriers, between at least two and four of the major, barriers depending on

where in West Campus, when it comes to accessing healthy, affordable food (Office of Sustainability, 2018).

## **WEST CAMPUS**

West Campus is the neighborhood located just west of the University and is heavily populated by college students. The borders of the neighborhood, shown in Figure 1, include Guadalupe Street to the East, Lamar Blvd to the West, W 29<sup>th</sup> Street to the North and Martin Luther King Jr Blvd to the South. West Campus has gone through many infrastructure and density changes over the last 20 years, impacting both the number of students and local businesses in the area.

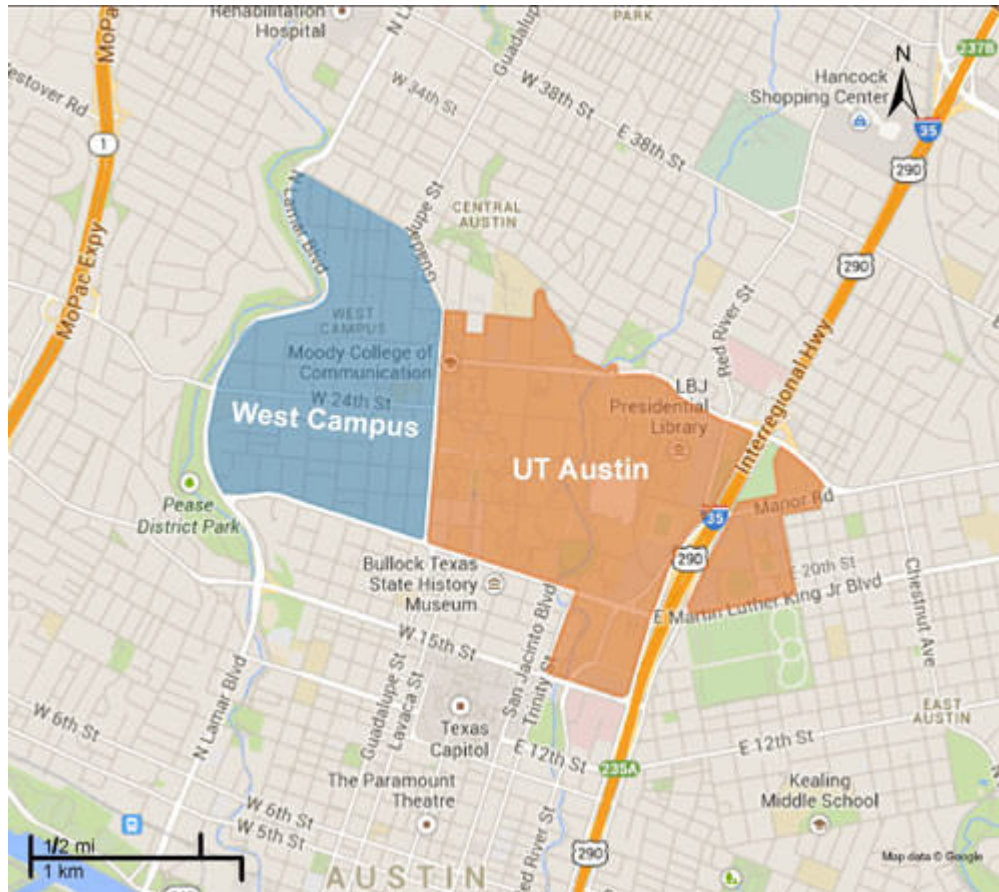


Figure 1 Map of West Campus and The University of Texas at Austin (Austin Residence, n.d.)

### History of West Campus

Historically, West Campus was made up of many students that were living in deteriorating historic homes and landlords had little incentive to renovate their buildings. Some students were willing to pay to live in run-down rooms with broken amenities because of its proximity to campus. This deterioration of homes that students were found paying rent for finally made the news when the City cited one of the West Campus

proprietors with numerous code violations that involved heavy fines and demolition of buildings in some cases.

In 2004, the City passed the University Neighborhood Overlay (UNO). The UNO wanted to consolidate student housing closer to campus by creating more housing opportunities for university students and decrease commuting issues by allowing downtown densities in West Campus, while preserving the other historic neighborhoods North and East of Campus (Caterine, 2018, Clark-Madison, 2004).

### **West Campus Today**

Today West Campus is the densest neighborhood in Austin, but the additional development did not curb the cost of living as expected. The new high rises being built in West Campus are not catered for a low-income student. One student told a reporter, “‘It’s kind of impossible to live in West Campus if you’re a first-generation college student, it’s so expensive [ . . . ] Most of us are on financial aid and a bunch of us could maybe afford to live there, but we would have to give up something else,’” (Messamore, 2012). In 2012, the average cost for a single bedroom in West Campus apartment buildings was between \$900 and \$1200.

There are no publicly available data that estimates the number or percentage of UT students that may live in West Campus. However according to census data, found in Table 1, there are approximately 14,000 residents between the typical college age of 18 – 34 living in census tracts that make up West Campus; 6.03 and 6.04 (2016, ACS). Assuming that only half of the residents between the ages of 25 to 34 are college

students, it can be estimated that 13,500 students may be living in West Campus or 26% of UT's students.

	Census Tract 6.03		Census Tract 6.04		TOTAL	
Under 5 Years	0	0%	0	0%	0	0%
5 to 9 Years	0	0%	0	0%	0	0%
10 to 14 Years	0	0%	7	0%	7	0%
15 to 17 Years	0	0%	40	1%	40	0%
18 to 24 Years	6,850	90%	6,203	90%	13,053	90%
25 to 34 Years	517	7%	411	6%	928	6%
35 to 44 Years	137	2%	42	1%	179	1%
45 to 54 Years	10	0%	112	2%	122	1%
55 to 64 Years	69	1%	70	1%	139	1%
65 Years +	4	0%	0	0%	4	0%
Total Population	7,587		6,885		14,472	

Table 1: Population in West Campus, (ACS 2016)

### West Campus Grocery Store Options

West Campus offers few places to purchase fresh food or produce. The Fresh Plus on 24<sup>th</sup> and San Gabriel is known as the grocery store of West Campus; however, there are limited options with a higher price tag attached to most items. With West Campus made up of mostly university students that often are not making much money, the Fresh Plus is not a favorable option to do one's grocery shopping. This may leave students turning to eating out at fast food places as a means of eating, because it is cheaper and there are many options to choose from.

Target on the corner of Guadalupe St. and W. 21st St. opened in November 2017. The small-scale store has fewer items than a traditional Target because of its reduced square footage. It sells an assortment of groceries as well as "dorm and apartment

essentials, technology products and accessories, men's and women's clothing, and health and beauty items," (Dinges, 2017). As of February 2019, Target cleared an aisle from the grocery section to begin stocking alcoholic products including beer and wine. Many people agree this smaller-scale Target is popular and is often found to be busy and filled with many students.

Austin Residence, an apartment locator for university students, describes the grocery shopping in West Campus, "As far as grocery shopping, there are more than eight convenience stores in West Campus as well as one medium sized grocery store – Fresh Plus [ . . . ] The best convenience stores in the area include Orange Market at 25th Street and San Gabriel (wonderful service, plus free coffee 24/7 and free doughnuts in the mornings Monday through Saturday), Bodega On Rio (Rio Grande and 21st Street), and West Campus Market (22nd Street and Pearl Street)" (Austin Residence, n.d.).

### **The Drag**

The Drag, or Guadalupe Street, is the western edge of UT and eastern boarder of West Campus. The high-traffic North-South corridor is known for its bookstore, coffee shops, and many food options. The journey for students living in West Campus to campus requires some interaction with Guadalupe St. Many students and faculty from the University often find themselves grabbing a meal from one of the many food retail options on the Drag.

## **UNIVERSITY OF TEXAS AT AUSTIN**

The University of Texas at Austin (UT) has an approximate enrollment of 52,000 students. It is estimated that 18% of UT students live on campus or in campus affiliated housing (University of Texas—Austin | Student Life, n.d.). West Campus is predominately made up of students, has over 8,000 student rentals and is estimated that 26% of students live in the neighborhood (Isenberg, 2018).

According to a survey conducted by UT’s Student Emergency Services one-fourth of UT’s student population faces food insecurity issues. In 2017, UT’s Student Body President co-authored a paper titled “Advancing UT Sustainability Through the Real Food Campus Commitment” describing the lack of healthy food options on campus and in the immediate vicinity where many students live (West Campus). “The Division of Housing and Food Services (DHFS) currently has 10 dining locations; half of them are concentrated in the Jester West residence hall, while 3 are located at the Kinsolving dormitory. The remaining two are also located at or adjacent to residence halls,” (Becker, 2017). Meanwhile, there are approximately 11 fast food restaurants on campus, including two Chick Fil A’s, two Starbucks and a Wendy’s. All of them are contracted by Aramark and are located at the Student Activity Center or the Texas Union – two of the highest traffic buildings – making them more visible and accessible to a larger share of students than the generally healthier options offered by DHFS, (Becker, 2017). “Overall, the ratios of unhealthy to healthy are quite large, making it far more difficult for students to access the healthier option,” (Becker, 2017).

## **Chapter 4: Methodology**

The methodology of this study was inspired by that of The Food for All Study completed by the City of Austin that focused on a neighborhood in North Austin. However, this research lacked the funds and a team of experts and consultants to completely replicate the work in West Campus. In order to appropriately answer the broader research questions and gain real knowledge on students shopping behaviors, it was determined that the best way to get this information is directly from students that live in West Campus through a survey. GIS maps will also be created to fully visualize the food environment in West Campus and the kinds of food surrounding students and their environment.

### **SURVEYS**

Online surveys were distributed to students. Surveys were 21 questions long with 20 of the 21 questions being multiple choice or close-ended questions with one single open ended question available for students to provide feedback and suggestions. The questionnaire was designed to take respondents no more than five minutes to complete. Surveys were organized and administered through an anonymous survey link through Qualtrics online. The survey went through a formal Institutional Review Board process and received approval from the University of Texas at Austin on September 28, 2018. The survey link was open from November 26, 2018 until February 15, 2019.



## **Validation of Survey**

Before the official survey was published and distributed, a draft of the survey was distributed to graduate students, some of which lived in West Campus and some of which did not. These students answered each question of the survey questions and provided feedback on the flow and length of the survey. This feedback was used to clean and reword questions to make the survey-taking process as easy as possible.

## **Survey Development**

In order to qualify to take the survey, students first had to answer whether they lived in West Campus. Students that selected no were automatically disqualified from the survey.

The survey is divided into four sections:

- Opinions and satisfaction with current food options
- Grocery shopping behavior
- Food purchasing behavior
- Demographics

Opinion items regarding the food environment employed yes, no, or neutral options to determine student views. The survey offered 7 grocery store options with an eighth “other” option available for students to comment on their grocery store. Some of the original 7 grocery stores were not chosen as a primary grocery store at all, while students included comments about other grocery stores that were not available options in the survey. Grocery stores that were not selected as a primary grocery store were

excluded from survey results and analysis. Demographic items included age, sex, race, major, degree level, and car ownership.

### **Implementation and Participants**

The distribution of the survey was done through means at The University of Texas at Austin as the aim was to receive feedback from students attending UT that lived in West Campus. The snowballing method of survey distribution was used to invite students to take the online survey that would further invite other students to participate in the survey. The online survey link was distributed through various undergraduate classes and organizations including: Transportation Policy and Planning, Human Geography, Physical Geography, Engineers for a Sustainable Planet, Community and Regional Planning Social Organization and the West Campus Neighborhood Association. Surveys were also sent out to a Planet Texas 2050 research group to be passed along to friends and family living in West Campus. All majors and all ages, from first year undergraduates to graduate students were invited to take the survey.

### **Statistical Analysis**

Only complete surveys were analyzed. Because this survey sample was so small in comparison to the actual student population of West Campus, it is not a statistically accurate sample. A descriptive statistical analysis was determined to be the best means of analysis for analyzing the survey results. The statistical analysis will be focusing on where students are grocery shopping, grocery shopping behaviors of students that primarily shop in West Campus and comparing shopping behaviors of those with and

without cars. This analysis will help put a story to the data about grocery shopping in West Campus. Microsoft Excel and Tableau are used to conduct such analysis and create visualizations of the data.

## **GIS**

Maps of the existing conditions of food options in West Campus as well as maps demonstrating where students are going grocery shopping were created using ArcGIS. Every food option in West Campus, as well as grocery stores in the area have been geocoded into ArcGIS. Food retail outlet addresses were downloaded from the City of Austin's Food Inspection Scores search engine. Food retail outlet addresses were downloaded for West Campus (78705) and nearby neighborhoods that have grocery store options (78701, 78703, 78751, 78756). Certain food retail outlets included in the inspection scores were excluded from the maps created as they are not food retail outlets that are open to the public, it is assumed college students are not purchasing food from these establishments and they are not the focus of this study. Those food retail outlets excluded are: fraternity and sorority houses, grade schools, hotels, medical centers, nursing homes and churches. The retail food options were then classified into grocery stores, convenient stores and fast food options. This demonstrates and visualizes the food options students living in West Campus have access to.

## Chapter 5: Survey Findings

Out of the 58 responses received, only 43 of the surveys were fully complete and therefore, accepted. The survey findings below demonstrate the basic answers from the survey and how students answered questions. A more in depth analysis of the survey findings is in the following Discussion chapter.

### STUDENTS GROCERY SHOPPING BEHAVIORS

Out of the 43 students that were surveyed, only 5\* students said they shop in West Campus (\*only three survey respondents self-identified as shopping in West Campus, but two other surveyors commented that their primary grocery store was Target, which is a grocery store in West Campus and therefore their answer was changed when analyzing survey results).

#### Grocery Shopping in West Campus

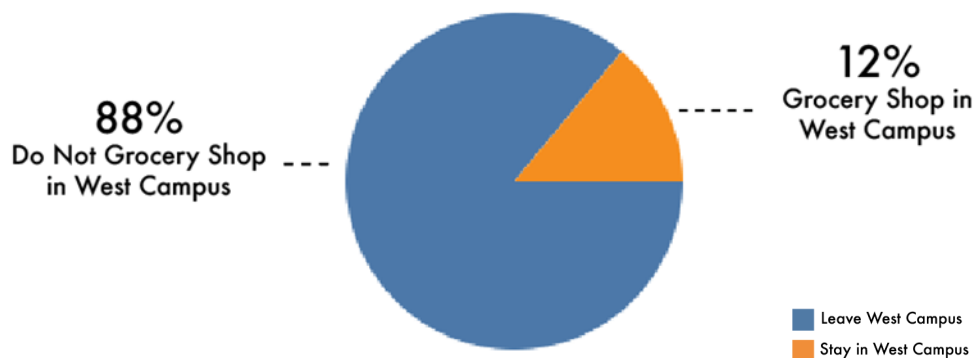


Figure 2: Students that shop in West Campus is shown orange

Students were asked to select their primary, most frequented grocery store. Below demonstrates where students most frequently grocery shop with the orange representing

students that shop in West Campus. Nearly 60% of student survey respondents answered that HEB is their primary grocery store. All five students that remain in West Campus to grocery shop frequent the Target on Guadalupe.

The survey offered 7 grocery store options with an eighth “other” option available for students to comment on their grocery store. Some of the original 7 grocery stores were not chosen as a primary grocery store, while students commented other grocery stores that were not available options in the survey including Wheatsville Co-op and Trader Joe’s, both frequented by several West Campus residents. Two students commented three primary grocery stores in the other option. When this occurred, I only took the first grocery store that was commented. The other grocery stores that were written in these comments include CVS, Ranch 99, Wal-mart and HEB Oltorf and they were not included in any of the survey analysis.

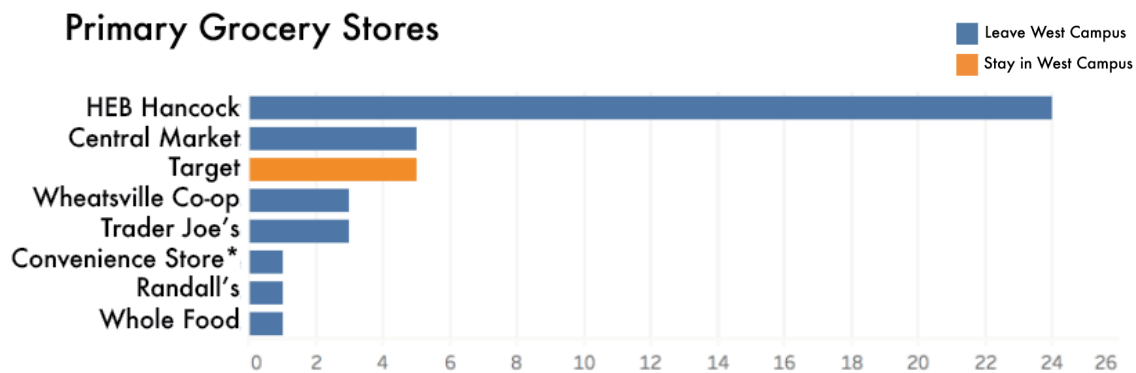


Figure 3: Primary Grocery Stores Response from Students

\*It is unknown which convenience store as the respondent did not specify

Students were also asked to select their primary mode of transportation to the grocery store. With nearly half of the respondents marked that they drive to the grocery store. Those that shop in West Campus, again shown in orange, all walk to their primary grocery store.

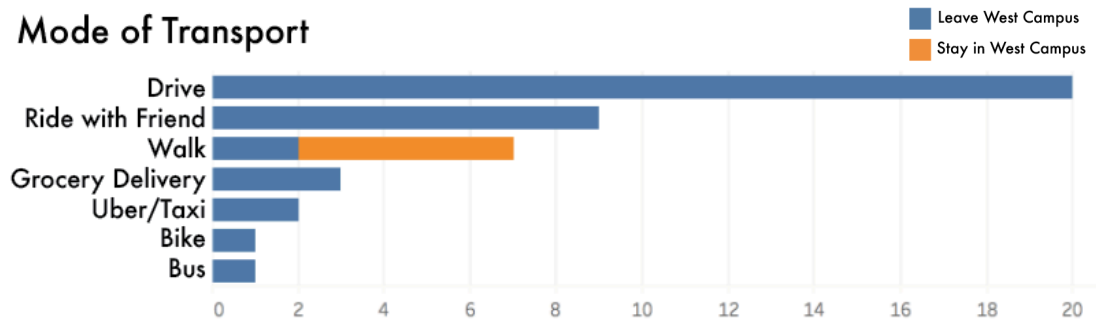


Figure 4: Primary mode of transportation students take to the grocery store, orange representing students that shop in West Campus

Another important factor that affects grocery shopping behavior and a shopper's mode of transportation to the grocery store is owning a car. 22 of the 43 respondents indicated that they do own a car.

Students were also asked how often they go grocery shopping. A majority of students are grocery shopping once a week or every other week. However, there are students that are shopping less frequently, including only once a month or less than once a month.

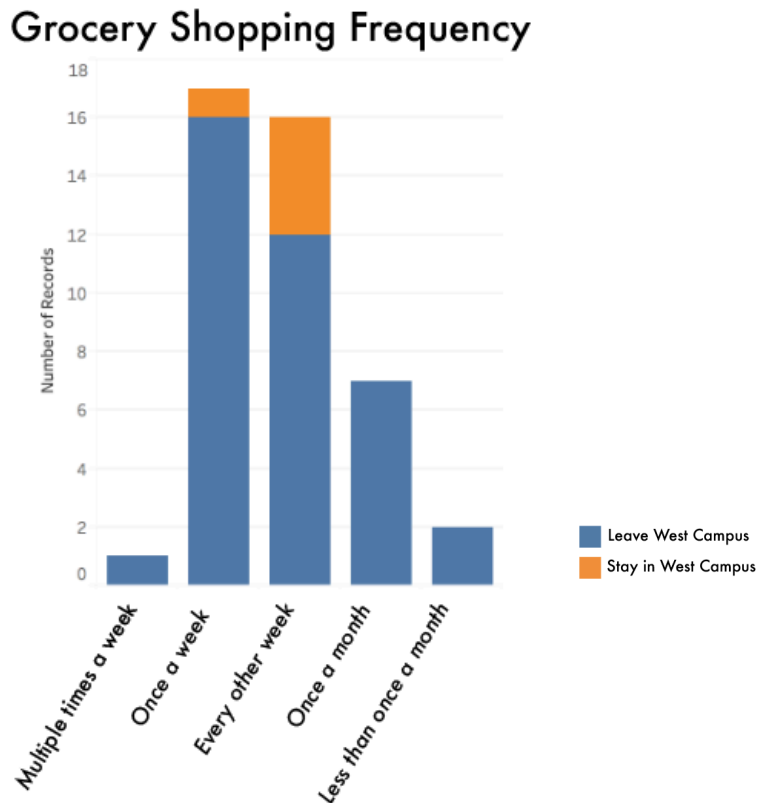


Figure 5: Demonstrating how often students go grocery shopping

A majority of students (44%) indicated that the products available at a grocery store are the most important factor when choosing their primary grocery store. The next two most important factors include product quality and how close the grocery store is to their residence. Only 5% of survey respondents said that the cheapest store is the most important factor.

### Most Important Factor when Grocery Shopping

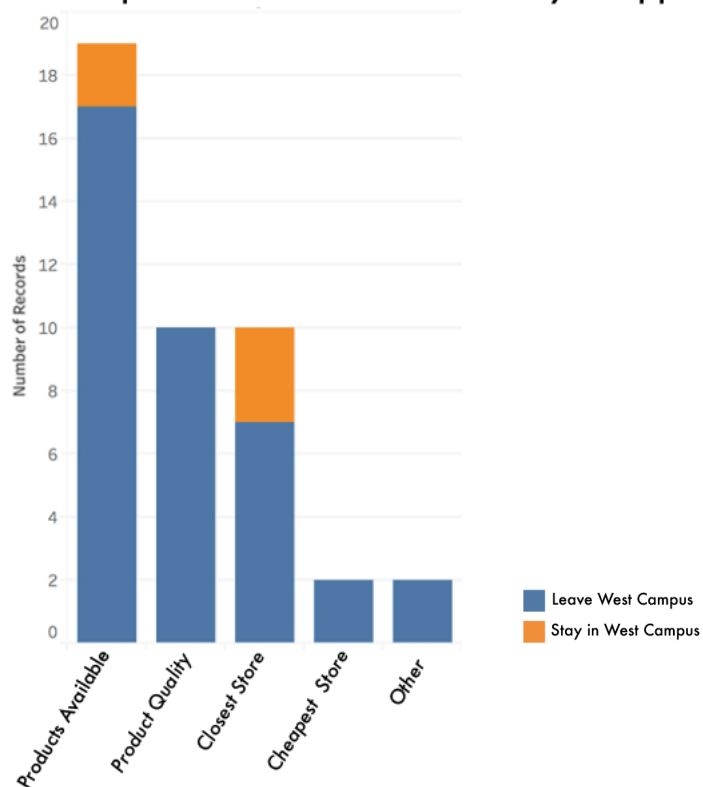


Figure 6: Students selected the most important factor when deciding where to go grocery shopping

### Other Food Options

Students were also asked about other means of getting food that they may encounter or utilize either through eating out, visiting UT's Farm Stand or using grocery delivery services.

Although many students (26%) claim that they eat out less than once a week, most students (47%) indicated that they eat out at a fast food outlet or restaurant 2 – 3 times a week. 9% of students indicated that they eat out 7+ times in a week.



Frequency of Eating Out in a Week

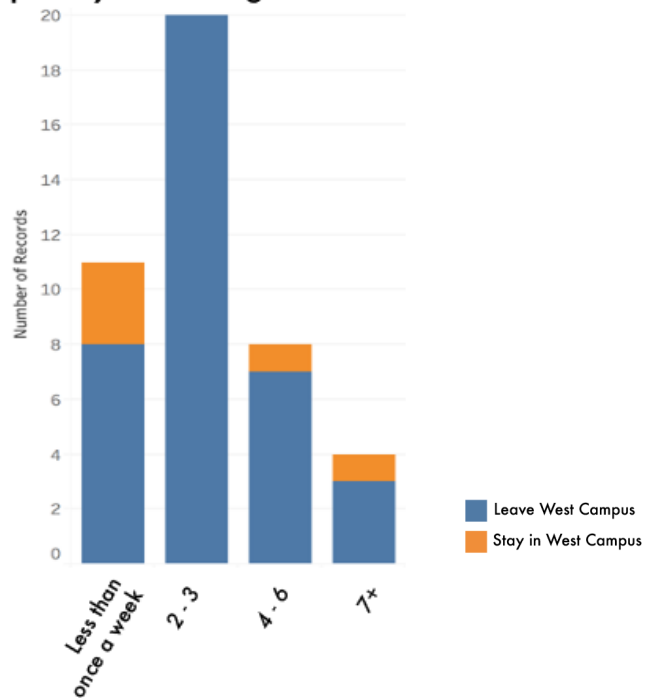


Figure 7: Students indicated how often they eat out at a restaurant or fast food outlet

Students were also asked if they have ever visited UT's Farm Stand and 19% of survey respondents have bought something from the Farm Stand. This does not mean they shop at it regularly but only that they have bought something from the Farm Stand at some point.

Students were also asked if they have ever used a grocery delivery service and 30% of survey respondents indicated that they have tried a grocery delivery service.

## Students Perceptions

Students were asked their opinion and perception about shopping and eating in West Campus. Overall, 73% of survey respondents are not satisfied with their grocery store options, leaving only 9% that claim they are satisfied and 11% responding neutral. More students (42%) indicated they are satisfied with other food options in West Campus while 31% of respondents are not satisfied with other food options offered in West Campus.

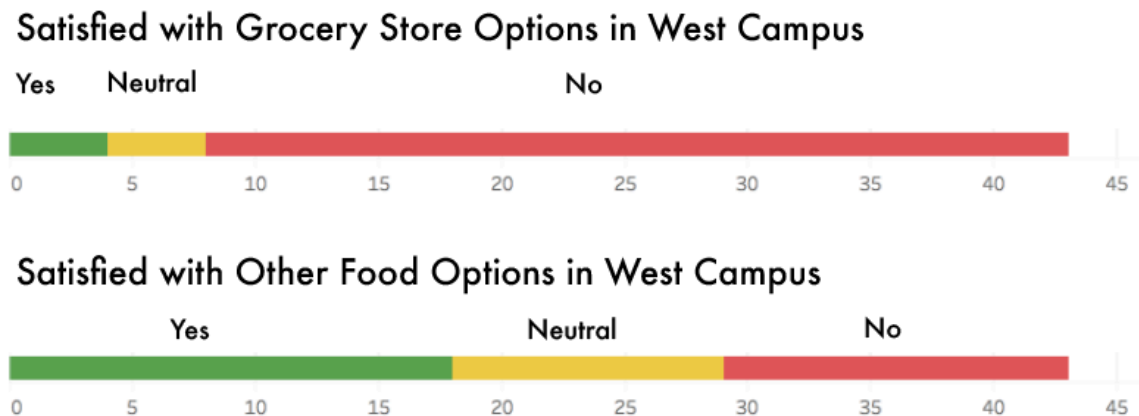


Figure 8: Satisfaction with Grocery Store and Food Options in West Campus

Students also responded about their perception on accessing healthy food both in West Campus and on campus shown in Figure 9. Overall, students responded negatively to accessing healthy food West Campus with nearly 70% of respondents claiming it is not easy to access healthy food in West Campus. Over 50% of students responded similarly about the difficulty of access healthy food on campus.

### Easy to Access Healthy Food in West Campus



### Easy to Access Healthy Food on Campus



Figure 9: Students indicate how easy it is to access healthy food

Overall, most students feel like they eat healthy most of the time (Figure 10). Only 7% of students believe they eat healthy all the time and nearly 10% of students claim they never eat healthy.

### Do you Eat Healthy?

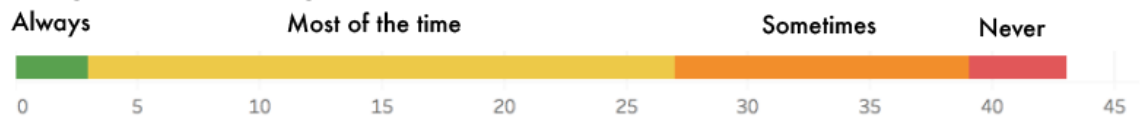


Figure 10: Students indicate how healthy they themselves eat

## **Comments**

16 of the 43 survey respondents choose to comment in the open-ended question at the end of the survey. The comments were categorized into major themes including:

- Lack of healthy food,
- Lack of grocery stores,
- Groceries are expensive in West Campus,
- Demand for stores that sell prepared foods,
- Target is good but could be better,
- Want access to the farm stand or something similar more often.

## **Demographics**

The demographic characteristics of survey respondents are shown in the tables below. Most respondents were undergraduate students (72%) and a majority of respondents were under the age of 25 years old (88%) (Table 3). A majority of the survey respondents were in the School College of Liberal Arts and the second majority of student respondents were in Cockrell School of Engineering (Table 2). Overall there was a mix of students in different schools across UT that live in West Campus that participated in the survey.

<b>Schools</b>	
College of Liberal Arts	12
Cockrell School of Engineering	10
N/A	8
College of Natural Sciences	5
School of Architecture	3
School of Nursing	2
McCombs School of Business	1
Moody College of Communication	1
School of Information	1

Table 2: Survey Respondents were collected from at least 8 Schools across UT

Respondents Characteristics		
<b>Total</b>	43	%
<b>Age</b>		
18 - 20	16	37.2%
21 – 24	22	51.6%
25 – 27	4	9.3%
28 – 30+	1	3.3%
<b>Students</b>		
Undergraduates	31	72.1%
Graduates	11	25.6%
<b>Race</b>		
White	22	51.2%
Black	0	0.0%
Asian	7	30.2%
Other	1	2.3%
<b>Gender</b>		
Male	18	41.9%
Female	25	58.1%

Table 3: Survey Respondents Demographics

**GIS FINDINGS:**

In West Campus it was found that there are approximately 60 fast food/restaurants, 8 convenience or corner stores, and two small grocery stores including, the Fresh Plus and Target. Figure 11 demonstrates the existing conditions found in West Campus.

Figure 12 shows West Campus along with the grocery stores students indicated they did most of their grocery shopping including: HEB, Target, Central Market, Randall's, Trader Joe's, Whole Foods, and Wheatsville Co-Op.

## Food Environment in West Campus

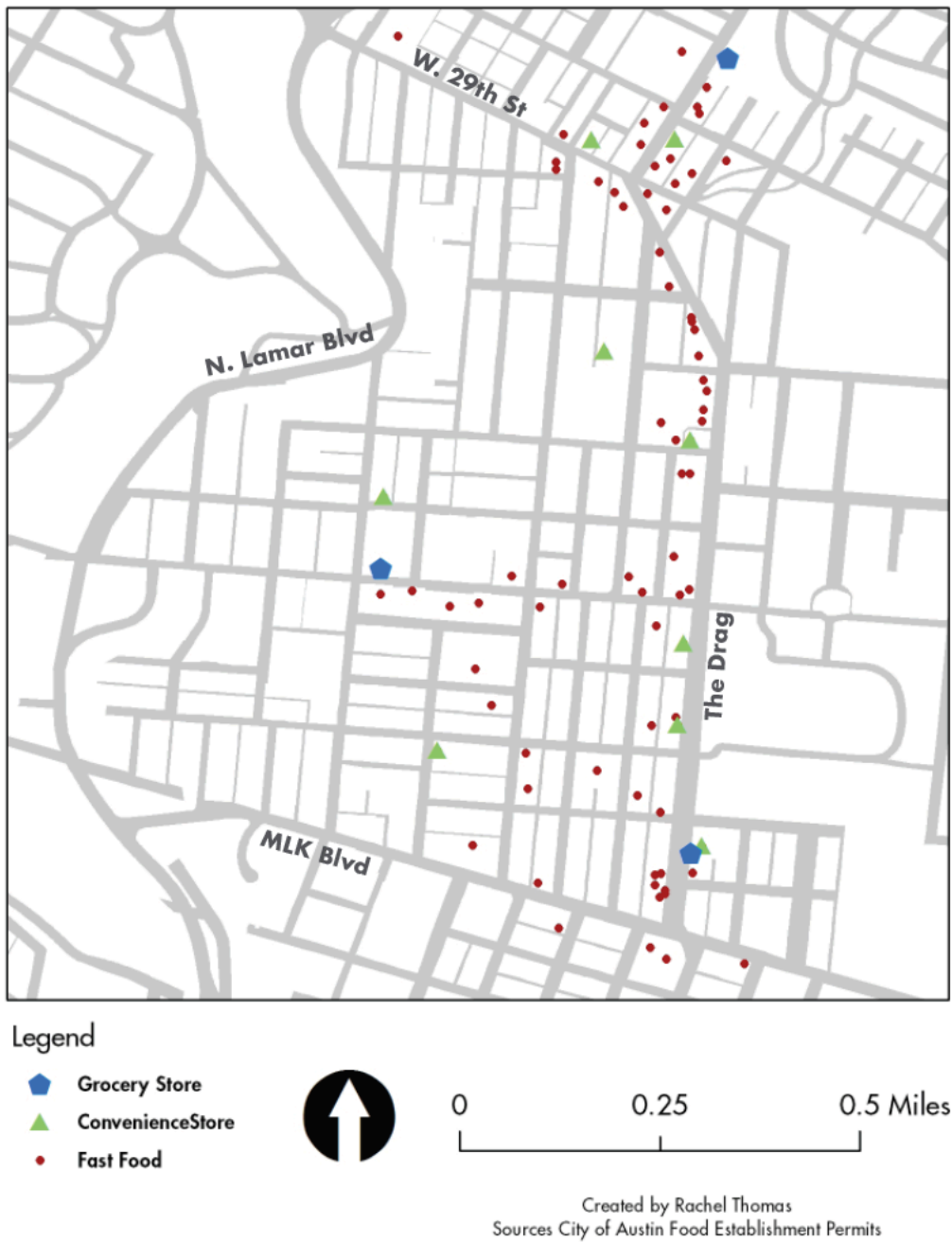
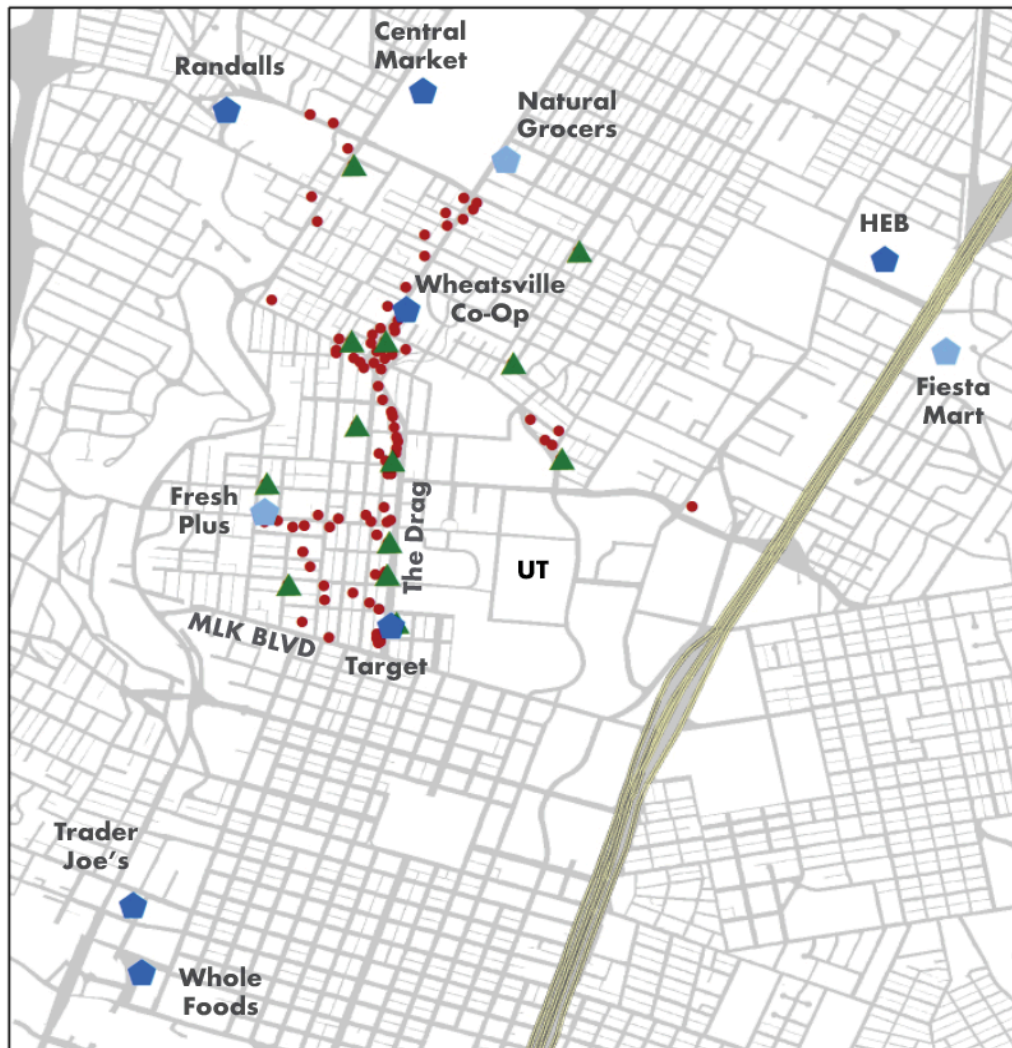


Figure 11: A map of the food environment in and adjacent to West Campus



## Grocery Stores and the Food Environment



### Legend

- ▮ Grocery Stores (students do not shop)
- ▮ Grocery Stores (Students shop)
- ▴ Convenience Stores
- Fast Food/Restaurants



0 0.5 1 Miles

Created by Rachel Thomas  
Sources City of Austin Food Establishment Permits

Figure 12: West Campus in relation to the grocery stores students indicated they shop. The light blue shapes indicate groceries stores that are open but students do not shop at. The dark blue shapes indicate grocery stores that students do shop.

## **Chapter 6: Discussion**

This survey found that most students do not grocery shop in West Campus. Students that stay in West Campus to do their grocery shopping frequent the Target on Guadalupe Street and 21<sup>st</sup> Street. None of the survey respondents indicated that they shop at the Fresh Plus. In general, it was found that most students travel to HEB in the Hancock Center on 41<sup>st</sup> Street to do most of their grocery shopping.

### **GROCERY SHOPPING IN WEST CAMPUS**

During the survey, 4 respondents selected that they were satisfied with their grocery store options in West Campus. However, of those four students that are satisfied with their grocery stores in West Campus, only one of those students actually does their grocery shopping in West Campus. The other three students travel outside of West Campus to go grocery shopping at HEB, Trader Joe's or Wheatsville Co-op.

Of the four students that selected neutral about their grocery store satisfaction in West Campus, two of the students shop at the Target in West Campus while the other two students are travelling to HEB to do their grocery shopping. It is questionable how students can be satisfied with their grocery store options in West Campus if they are not actually grocery shopping in West Campus.

Of the 4 students that indicated they were neutral about the grocery stores in West Campus, two of which do not shop in West Campus and travel to the HEB to do their grocery shopping. The other two students remain in West Campus to do their grocery shopping at the Target.

Ultimately, of the five students shopping at Target in West Campus, only one student is satisfied with this grocery store, two students are neutral, and two students are not satisfied with Target as a grocery store. This demonstrates that students are not satisfied with the Fresh Plus as a grocery store as no survey respondents depend on the Fresh Plus as their primary grocery store.

### **West Campus Convenient Stores**

This survey found similar results as the survey conducted in Evans et al., 2015 about convenience stores. Students are generally unhappy with convenience stores as primary grocery store options, despite Austin Residence promoting them as great grocery store options. One student commented, “The convenience stores spread throughout west campus do not provide healthy options for West Campus residents” and another student even says “I personally feel [Fresh Plus is] more of a convenience store due to the higher than average price of their inventory.”

The one student that indicated that they shop at a convenience store as their primary grocery store stated that they are unsatisfied with their grocery store options in West Campus and they believe it is difficult to find healthy food in West Campus and on campus. They also believe that they only eat healthy sometimes.

### **TRANSPORTATION**

Many different modes of transportation were selected as a primary mode to travel to the grocery store – or groceries that travelled to the individual in the case of grocery delivery service being used (Figure 13). The mode of transportation chosen impacted the

frequency of how often a student was grocery shopping. Driving was the mode most often used, followed by riding with a friend, then walking, and grocery delivery services. Taking an Uber, biking and busing were the least used modes of transportation to the grocery store.

### Transportation to Grocery Stores

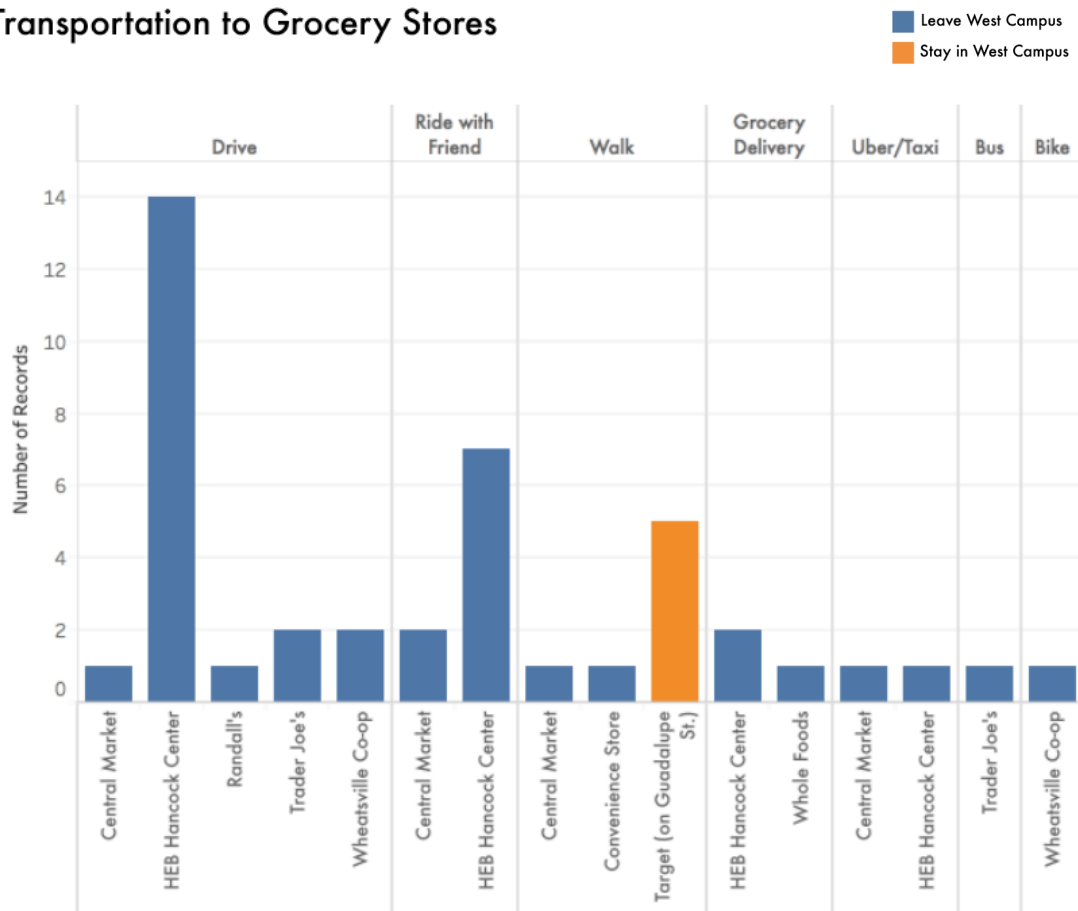


Figure 13: The mode of transportation students take to their primary grocery store

**Driving**

Of the 22 survey respondents that own a car, 20 of those survey respondents drive to the grocery store. The two other respondents that own a car choose different primary modes of transportation: one respondent that owns a car receives grocery delivery services from Whole Foods, and the other respondent bikes to Wheatsville Co-op. Many (47%) students living in West Campus are depending on their own personal cars to get to a grocery store.

Students that own a car have the freedom of choosing where and how often they go grocery shopping. The only student that indicated they go grocery shopping multiple times a week owns a car and drives to HEB. 23% of survey respondents that drive frequent the grocery store once a week. Although one of the two survey respondents that said they go grocery shopping less than once a month does own a car and travels to HEB to do their grocery shopping.

**Riding with a Friend**

21% of survey respondents said they depend on riding with a friend to go grocery shopping. Without a car, and depending on a friend or roommate, leaves very little freedom in deciding when and where to go grocery shopping.

Two survey respondents commented how difficult it is grocery shopping without a car. One student commented, “When I go grocery shopping, I ride with a friend and have to depend on their whims, usually having to anticipate how much I should buy lest I don’t make it to HEB. I never go regularly.” Another comment, from a student that owns a car and drives to the HEB said, “I don’t mind going to heb, so don’t really need options

in West campus.” These comments demonstrate how owning a car affects a student’s ability to access a grocery store of their choice.

### **Walk**

Seven students (16%) indicated that they walk to their primary grocery store. However, only five of those seven students shop in West Campus at the Target. The other two students indicated that they walk to and shop outside of West Campus, either at Central Market or a convenience store. There is no information indicating which convenience store is being shopped at and therefore it cannot be said how far the student is walking to go grocery shopping. It is also not clear from where in West Campus the student is walking from to travel to Central Market. According to Google Maps, it is an estimated 20 minute, one mile walk from the most northern part of West Campus (29<sup>th</sup> Street) to get to Central Market.

### **Bus**

Only one survey respondent said they take a bus to their primary grocery store, Trader Joe’s. Although Trader Joe’s is one of the furthest grocery stores from West Campus, there are 5 buses (1, 3, 19, 20, 803) that travel from the Drag and have a stop within .1 miles of Trader Joe’s, making it relatively easy to access by bus.

The same cannot be said about busing to HEB. If a student wanted to bus to HEB from West Campus, this would require the student walking nearly a mile to the 10 bus route to catch a bus that has a stop near HEB. A student also has the option of getting on the 20 route on the Drag and transferring buses to get to the HEB. Google Maps indicates

that any one of these routes can take between 28 and 40 minutes. The student that indicated they take a bus to Trader Joe's goes shopping every other week.

### **Uber**

The two students that choose a ride-hailing service, such as an Uber or Taxi as their main mode of transportation to the grocery store do not own cars. By taking an Uber, students have the ability to travel to the grocery store when they have time and on their own terms. However, this also means students are paying money out of pocket to travel to and from Central Market and HEB. According to Google Maps, this is estimated to cost anywhere between \$12 and \$20 for a trip to buy groceries. These two students also indicated that they only go shopping once or twice a month, most likely due to the extra expense it requires.

### **ALWAYS EAT HEALTHY VS NEVER EAT HEALTHY**

When asked about their own perceptions on eating healthy, three students indicated that they always eat healthy while four students indicated that they never eat healthy.

Students that indicated that they always eat healthy leave West Campus to do their shopping at HEB and Central Market. They do not frequent the grocery store often and only go once or twice a month. Only one of the students owns a car and drives while the other students order grocery delivery or take an Uber. These students do not eat out often, only 2 to 3 times a week.

One of the students thinks it easy to find healthy food on campus and in West Campus while the other two students do not find it easy to find healthy food on campus or in West Campus. In general, they are not satisfied with food options on campus, but they are satisfied with food options in West Campus. None of the students are satisfied with their grocery store options in West Campus and do their grocery shopping outside of West Campus.

In terms of demographics, two of the students identify as White while the other student identifies as Asian. Two of the students are female. They are mostly younger students between 18 and 20 years old with one of the students being 25 – 27 years old.

Students that indicated that they never eat healthy go grocery shopping less frequently, with two of the students shopping only once a month and another student grocery shopping less than once a month. Two of the students own a car and drive to the grocery store, while the other two students do not own a car and either walk or take an Uber. HEB is the primary grocery store chosen while one student shops at Target. These students also eat out at fast food and restaurants more often with two of the students indicating that on average, they eat out over 7 times in one week. All four students are not satisfied with their grocery store options in West Campus and they do not believe it is easy to find healthy food in West Campus. Three of the students are not satisfied with food options on campus, and two of the students are not satisfied with food options in West Campus, though one of the students is satisfied.

In terms of demographics, one of the students is White, one Asian, and two are Hispanic. They are also relatively younger with only one of the students being between



the age of 25 and 27, the other three are between the age of 18 and 24. They are also mostly males that indicated they never eat healthy with only one female indicating the same.

Overall, there are not many differences in grocery shopping behavior or demographics between the three students that always eat healthy compared to the four students that never eat healthy. This could mean there is a lack of knowledge about cooking and eating healthy that prevents the students that never eat healthy from eating healthy.

#### **YOUNGER DEMOGRAPHICS**

88.5% of students that took this survey are between the ages of 18 and 24, the critical age at which eating habits may put students at risk for obesity and longer lasting adverse health impacts (Marqueus et al., 2019). Although some of the students are grocery shopping on a weekly basis (45%), eating out less than once a week (26%) and eat healthy at least most of the time (66%), other students between the ages of 18 and 24 are not following such healthy habits. 26% of younger students said they only sometimes eat healthy and 8% said they never eat healthy. 30% of younger students eat out more than 4 times a week and 21% of those students going grocery shopping once a month or less than once a month. Some of these younger students are shopping at groceries stores that are known for food with better quality, such as Trader Joe's and Whole Foods. However, some of these students are shopping at grocery stores that have been criticized for not supplying nutritious foods such as a convenience store and Target.

It is difficult to understand the grocery shopping behaviors and healthy diet perceptions of this group of survey respondents. There could easily be financial troubles that students are facing that could prevent them from eating healthy. There could also be a problem of students not knowing how to cook or not understanding healthy eating.

## **LIMITATIONS**

There are limitations to this study that prevent a full understanding as to why students are or are not eating healthy. The survey did not address questions related to financial hardship, ability to cook, time to cook, or knowledge of nutritional foods. Addressing these questions may great a better understanding of a students grocery shopping behavior and food purchasing behavior. Another possible limitation to this study is students were not asked to specify what part of West Campus they live in. West Campus is a large neighborhood that spans nearly 1 mile from MLK Blvd. to the south and 29<sup>th</sup> St. to the north and .5 - .7 miles from Guadalupe St. into West Campus. Where in West Campus that students are living could also impact food accessibility, for example, how close to Guadalupe St. and the numerous bus stops that go north and south to grocery stores or how close to the Fresh Plus or Target that students may live.

It is also important to note, again, that the sample size is incredibly small compared to the number of students that attend UT, and also the number of students that live in West Campus. The descriptive statistical analysis conducted in this study is based on the 43 completed surveys and may not accurately portray the shopping behaviors of the entirety of students living in West Campus.

## **FUTURE RESEARCH & SUGGESTIONS**

Although small, this study identified many interesting patterns in the shopping behaviors of students living in the neighborhood right next to campus that could be of particular interest to both UT's Office of Sustainability and The City of Austin's Office of Sustainability. The current survey results as well as identifying the limitations to this survey offer a great starting point to conduct further studies to better identify solutions that could benefit students living and eating behaviors in West Campus. Because these are students of the University, the University should play a role in ensuring students have appropriate access to and knowledge of healthy, affordable food; whether that means the University supplies the food, the University offers nutritional workshops, or the University partners with The City of Austin to provide transportation for students to get to a grocery store.

## **Chapter 7: Conclusion**

There are many factors that will impact a student's grocery shopping behavior and food purchasing habits. The local food environment impacts the access to or the ability for one to purchase affordable, healthy and nutritious foods, but there are also a number of other factors that will impact the grocery shopping behavior of a university student.

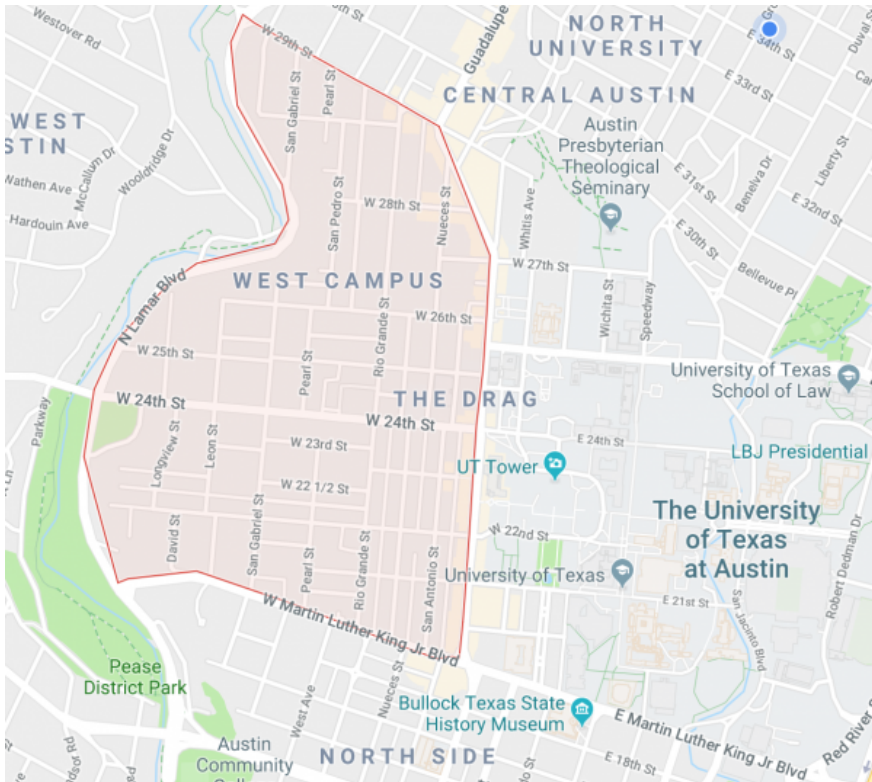
It is often presumed that because West Campus, conveniently, has the Fresh Plus grocery store in the middle of the community, students are doing their grocery shopping there. However, just as Shaw stated in his study, the "geographical proximity to a food store does not necessarily mean that the consumer will find it attractive," there may be financial constraints, food quality issues or lack of options that prevent someone from shopping there (2006).

Overall, findings from this study suggest that students are not satisfied with their grocery store options in West Campus and if they have the ability, will travel to grocery stores outside of West Campus to do their grocery shopping. Access to transportation greatly affects how often a student is grocery shopping and how healthy they presume their own diet to be. There was a significant interest in the increased availability and affordability of healthy food options in West Campus and on-campus. Students find grocery shopping in West Campus too expensive and lacking in quality and quantity of grocery items.

## Appendix: West Campus Student Survey

Q1 The purpose of my research is to study where students living in West Campus are purchasing their food and if they are satisfied with their options. My study consists of examining the existing conditions of food options in West Campus and getting feedback from students living in the neighborhood. The final report of this study will be given to UT's Office of Sustainability and/or University Housing and Dining Services. Survey results will remain anonymous and no where will it ask for any personal information that could later identify you. Participation is voluntary, participants may discontinue participation at any time without penalty. Any questions or concerns can be sent to [thomasrach@utexas.edu](mailto:thomasrach@utexas.edu). By clicking agree, you indicate that you have read the above information, you voluntarily agree to participate and you are 18 years of age or older. (I agree/ I do not agree)

Q2 I will be conducting my research in West Campus, the neighborhood that is highlighted in red.



Q3 Do you live in West Campus? (Yes/No)

Q4 Are you satisfied with your grocery store options in West Campus? (Yes; Neutral; No)

Q5 Are you satisfied with other food options in West Campus? (Yes; Neutral; No)

Q6 Are you satisfied with your food options on campus? (Yes; Neutral; No)

Q7 Do you believe it is easy to find healthy food in West Campus? (Yes; Neutral; No)

Q8 Do you believe it is easy to find healthy food on campus? (Yes; Neutral; No)

Q9 Do you believe you eat healthy? (Always; Most of the time; Sometimes; Never)

Q10 Do you do most of your grocery shopping in West Campus? (Yes/No)

*Skip To: Q10.a. If Do you do most of your grocery shopping in West Campus? = Yes*

*Skip To: Q10.b. If Do you do most of your grocery shopping in West Campus? = No*

Q10.a. Where in West Campus do you do most of your grocery shopping? (Fresh Plus; Target; Convenience Store; Other)

*Skip To: Q11 If Where in West Campus do you do most of your grocery shopping? = Fresh Plus*

*Skip To: Q11 If Where in West Campus do you do most of your grocery shopping? = Target (on Guadalupe St.)*

*Skip To: Q11 If Where in West Campus do you do most of your grocery shopping? = Convenience Store (CVS, 7-Eleven, West Campus Market, etc.)*

*Skip To: Q11 If Where in West Campus do you do most of your grocery shopping? = Other*

Q10.b. What is your PRIMARY grocery store? (Choose one) (HEB Hancock Center; Central Market; Randalls; Fiesta Mart; Whole Foods; Natural Grocers; Convenience Store; Other)

Q11 How often do you go grocery shopping? (Multiple times a week; Once a week; Every other week; Once a month; Less than once a month)

Q12 Typically, how do you get to the grocery store? (Drive; Bus; Bike; Walk; Ride with Friend; Uber/Taxi; Other)

Q13 How do you decide WHERE to go grocery shopping? (Choose only one) (Cheapest Store; Closest Store; Products Available at the store; Product Quality at the store; Other)

Q14 On average, how many times a week do you eat out (at a restaurant, fast food, fast causal) that is NOT on campus? (less than once a week; 2 – 3; 4 – 6; 7+)

Q15 What is your primary reason for eating out (at a restaurant, fast food, fast causal)? (Choose only one) (Easy; Cheap; Close; Fast; Other)

Q16 Have you used any grocery delivery services? (Yes/No)

Q17 Have you ever purchased anything from the UT Farm Stand? (Yes/No)

Q18 Please add any comments or suggestions you may have about food & grocery shopping in West Campus. ( e.g. Do you feel like anything is missing in terms of food in West Campus? How easy do you think it is to go grocery shopping? What would you like to see more of? etc.)

Q19 What is your major?

Q20 Are you an undergraduate or graduate student? (Undergraduate/Graduate)

Q21 Do you have a car? (Yes/No)

Q22 What is your gender? (Male; Female; NA)

Q23 What is your age? (18 – 20; 21 – 24; 25 – 27; 28 – 30; 31+)

Q24 Please specify your race? (White; Black or African American; Asian; Hispanic or Latino/a ; Native Hawaiian or Pacific Islander; Other)

## Works Cited

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