

Riverdale Park Community Food Assessment

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Executive Summary

From February through April 2018, the Town Administration of Riverdale Park, Maryland entrusted our group of Environmental Science and Policy Undergraduate students at the University of Maryland to determine whether food insecurity is a prevalent issue in their municipality. Our team developed a Community Food Assessment to examine the current status of food insecurity by means of secondary and primary data collection and analysis. First, we developed a Food Environment Map to analyze whether Riverdale Park is a food desert according to four food desert analysis variables. Secondary data was also analyzed to develop profiles of community socioeconomic and demographic characteristics, community food resources, and food resource accessibility and availability. Next, primary data was gathered by distributing a food security survey, conducting 15 30-minute interviews, and completing retail food environment assessments for local supermarkets.

Through literature reviews, secondary data analysis, and primary research, our findings indicate that food insecurity is prevalent in certain areas of Riverdale Park. There are several initiatives and meal delivery programs in place to assist in boosting food security in the area, however these programs may not be reaching all segments of the Riverdale Park population. In the following report, we outline the various food access areas and food assistance programs that are operating in Riverdale Park, and discuss the reach of each. We then discuss why certain residents in Riverdale Park may still be struggling with food security and propose our recommendations on how the municipality best address the issue.

Introduction

Description of Problem

In response to the prevalence of food insecurity throughout Prince George's County, Maryland, the Town Administration of Riverdale Park wanted to have a better understanding of the role food insecurity plays in the lives of community members of this municipality. Our group was given from February through April 2018 to complete our research and to provide this report. As we learned from our client, Town Manager John Lestitian, in our initial meeting, it was quite unclear whether food insecurity is a predominant issue in Riverdale Park. Our group's responsibilities were to conduct research to better understand the presence and extent of food insecurity in Riverdale Park, in order to bring clarity to this discussion and move forward with recommending possible solutions for addressing the problem.

Key Goals and Objectives

Our team's mission was to assess the food security situation in Riverdale Park and to devise a plan for working towards a solution where every member of the community has equal access to healthy and affordable food. A multi-disciplinary approach was taken; the group implemented Geographic Information System for mapping food insecurity throughout the community, communicated with policymakers and community members, and addressed social and cultural factors that contributed to the issue. In order to determine whether food insecurity was prevalent, to assess the extent of food insecurity, and to develop an action plan for addressing the issue that serves the interests of Riverdale Park, Maryland we outlined the following objectives.

Objectives:

1. Establish a clear definition for food security and determine whether food insecurity is indeed an issue in Riverdale Park and quantify the extent of food (in)security in the area.
2. Decide the best recommendation for addressing food security in Riverdale Park.

Background

Definitions

Food Security

According to the definition agreed upon at the 1996 World Food Summit, food security represents “a situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life” (Jones et al., 2013). This definition sets a high standard that encompasses and goes beyond the current nutritional status quo and captures individual or household vulnerability to disruptions in future access to adequate and appropriate food. Nutrition insecurity is sometimes incorrectly used interchangeably with food insecurity, but nutrition security is much broader. The Food and Agricultural Organization defines nutrition security as “a situation that exists when secure access to an appropriately nutritious diet is coupled with a sanitary environment, adequate health services and care, in order to ensure a healthy and active life for all household members” (FAO, 2012). Food security is necessary for nutrition security, but is not sufficient by itself to account for the nutrients individuals need in their diets. Nutrition security takes care, health, and hygiene practices into consideration in addition to food security (FAO, 2012).

According to the USDA, food security is comprised of three pillars: availability, access, and utilization (USDA, 2017). Adequate availability to food is necessary, but availability alone does not ensure access to enough food or nutrients needed to provide individuals with adequate energy and micronutrients (Barrett, 2010). Access to food is closely related to social science concepts of “well-being.” However, as a multidimensional concept, measuring “access” becomes more difficult than measuring availability. Utilization expresses concerns about how well households use the food to which they have access, and whether that use can be considered efficient or inefficient. The utilization pillar is more focused on dietary quality, especially micronutrient deficiencies that are commonly associated with a lack of essential minerals and vitamins in an individual’s diet (Barrett, 2010). Populations that lack these elements are considered to be located in a food desert (USDA, 2017). Food deserts are discussed in the following subsection.

USDA also defined food insecurity as, “a lack of consistent access to enough food for an active, healthy lifestyle” (USDA, 2017). Over the last twenty years, food insecurity has become a growing issue of global concern. It is estimated that over one-billion people suffer from insufficient availability of dietary energy, and over two-billion have micronutrient deficiencies (Barrett, 2010). Most of the current research on food insecurity focuses on improving and standardizing the measurement of food insecurity done in food security assessments. However, estimated prevalence rates and patterns remain questionable because difficulty in measuring food security on a standard scale persists (Barrett, 2010).

In the U.S., it is estimated that food insecurity impacts 14.6% of the nation, or about 49 million people. Not having access to sufficient foods is a major health and social problem. Food insecurity can lead to nutrient deficiencies, reduced physical and mental health, obesity, diabetes, lower educational achievements, and numerous other issues (Holben, 2010). Furthermore, there are racial and socio-economic disparities in food access that must be addressed when discussing food insecurity. Food insecurity tends to have a greater impact on low and moderate-income areas. Racial and ethnic minority neighborhoods also are more widely affected by the adverse health issues that can occur because of food insecurity (Walker et al., 2012). Studies have also shown that residential segregation is a factor that contributes to the creation of food deserts (Walker et al., 2012).

Food Desert

Neighborhoods that lack adequate, healthy food sources are considered food deserts. Factors to consider when assessing an area's likelihood to be considered a food desert are accessibility to healthy food by distance and quantity of food sources, individual-level factors such as income or vehicle availability, and neighborhood-level factors such as average income and the availability of public transportation as a resource to get to and from healthy food sources. While the USDA does not have a clear definition of a food desert, they use a system of defining characteristics that contribute to food deserts, including income level, distance to supermarkets, and vehicle access. In order to be considered a food desert, a census tract must meet the following criteria (USDA, 2017):

1. Low-income: Tract's poverty rate is 20% or greater; or median family income is less than or equal to 80% of the Statewide median family income; or is a tract located in a metropolitan area and has a median family income less than or equal to 80% of the metropolitan area's median family income.
2. Low-access: defined as, "being far from a supermarket, supercenter, or large grocery store".
 - a. Low-income census tracts where a significant number (at least 500 people) or share (at least 33 percent) of the population is greater than ½ mile from the nearest supermarket, supercenter, or large grocery store for an urban area or greater than 10 miles for a rural area.
 - b. Low-income census tracts where a significant number (at least 500 people) or share (at least 33 percent) of the population is greater than 1.0 mile from the nearest supermarket, supercenter, or large grocery store for an urban area or greater than 10 miles for a rural area.
 - c. Low-income census tracts where a significant number (at least 500 people) or share (at least 33 percent) of the population is greater than 1.0 mile from the nearest supermarket, supercenter, or large grocery store for an urban area or greater than 20 miles for a rural area.
3. Vehicle Availability: More than 100 households in the tract report having no vehicle available and are more than 0.5 miles from the nearest supermarket.

The City of Baltimore, in partnership with the Johns Hopkins Center for A Livable Future, Baltimore City Health Department, Baltimore City Department of Planning, and Baltimore Development Corporation, developed criteria for defining food hubs in urban communities. In the process of mapping Baltimore City's Food Environment, they defined a food desert as, "an area where the distance to a supermarket or supermarket alternative is more than 0.25-mile, the median household income is at or below 185% of the Federal Poverty Level, over 30% of households have no vehicle available, and the average Healthy Food Availability Index (HFAI) score for all food stores is low" (Buczynski, Freishtat, and Buzogany, 2015). Regarding the above criteria, the Baltimore definition uses a 0.25-mile radius from a supermarket or supermarket alternative to approximate walking distance. Based on empirical studies, it can be assumed that households using public transit or walking to food stores would not walk farther than one quarter mile with groceries. To find data for median household income and vehicle availability, the report suggests using the most recent American Community Survey (ACS) five-year estimate data by Census Tract. HFAI score is another variable included in their definition. This tool awards points based on the presence of basic whole food groups in supermarkets. The food groups include milk, juice, fruits and vegetables, meats, bread, cereal, canned goods, dry goods and frozen foods. The healthy options are based on USDA nutrition standards, such as 100 percent whole wheat bread or one-percent and skim milk. Scores range from 0 to 28.5, with a higher score indicating a greater presence of healthy foods (Buczynski, Freishtat, and Buzogany, 2015).

Riverdale Park Community Profile

The Town of Riverdale Park is an incorporated, semi-urban town located in Prince George's County, Maryland. The town is located three miles from the boundary between Maryland and Washington, D.C.

According to the U.S. Census Bureau (2018), Riverdale Park has a total population of 7,304 people. According to the 2012-2016 American Community Survey 5-Year Estimates, there are a total of 2,058 households, with an average of 3.58 people per household. Median household income of the town is \$61,520. The median age of its residents is 30.5 years. Also, 52.90% of the town residents are male and 47.10% are female. Of the total population, 627 residents are under the age of five, 1,359 are between the ages of five and 17, 738 are between 18 and 24 years old, 1,317 are between 25 and 34 years, 963 fall between 35 and 44, 955 are between 45 and 54, 371 are between 55 and 59, 273 are between 60 and 64, 361 are between 65 and 74, and 205 are residents older than 75. The largest ethnic population in Riverdale Park is Hispanic, with 3,744 residents and 52% of the population identifying as such. The next largest group is African Americans, consisting of 1,765 people and 24%. Following African Americans is Caucasians, with 1,272 people and 17% of the total population. Asian/Pacific Islanders and American Indians make up a small portion of the total population; there are 340 Asian/Pacific Islanders and 7 residents of American Indian descent. Furthermore, 25% of Riverdale Park residents above the age of 16 years old and below the age of 75 were not in the Civilian Labor Force. The average poverty rate for a 7-year period (2010 to 2017) in Riverdale Park was 17.9% (U.S. Census Bureau, 2017). These statistics are found below (Table 1).

Table 1. Demographic Profile of Riverdale Park, Maryland

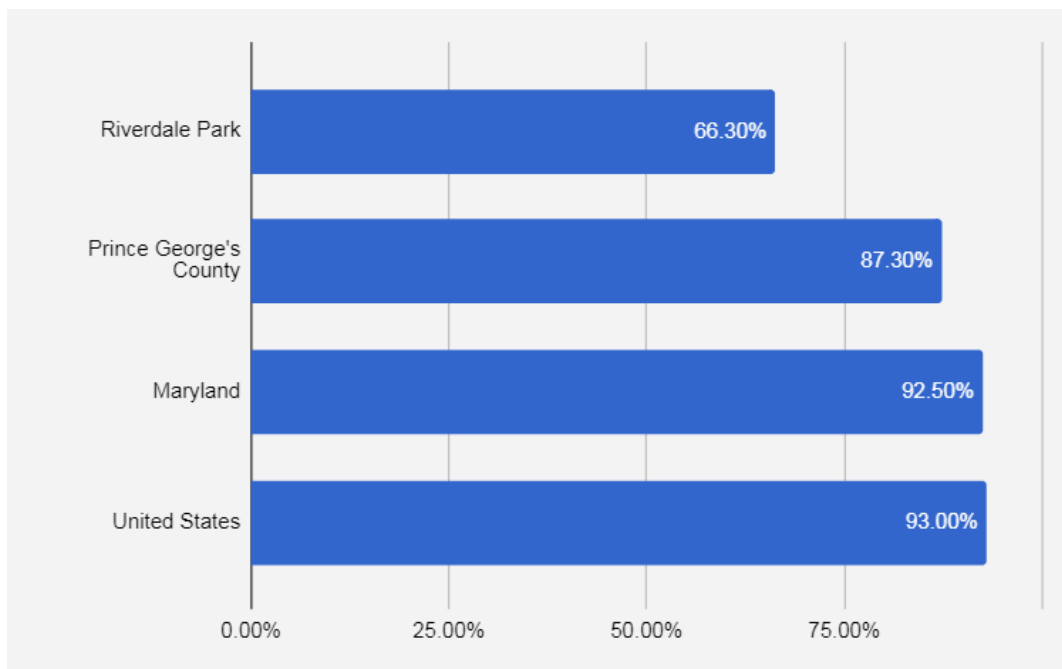
Demographic Characteristic	Number
Total Population as of July 1, 2016	7,304
Gender:	
Male	52.90%
Female	47.10%
Household Structure:	
Total Households	2058
Persons per household	3.58
Race/Ethnicity:	
Hispanic	3,744
African American	1,765
White	1,272
Asian/Pacific Islander	340
American Indian	7
Other	176
Age Structure as of 2015:	
Younger than 5	627
5 to 17	1,359
18 to 24	738
25 to 34	1,317
35 to 44	963
45 to 54	955
55 to 59	371
60 to 64	273
65 to 74	361
Older than 75	205
Total	7,169

2016 Employment Status (16+ years)	75%
2016 Median Household Income	61,520
Poverty Status (Average: 2010 to 2017)	17.90%

(U.S. Census Bureau, 2017), (U.S. Census Bureau, 2018)

As of 2016, 66.3% of Riverdale Park residents were United States citizens, which is lower than the national average of 93%. In 2015, the percentage of US citizens in Riverdale Park, MD was 64.9%, meaning that the rate of citizenship has been growing in this location (U.S. Census Bureau, 2017) (Figure 1).

Figure 1: Percent Citizenship of Residents



Lastly, according to the Maryland State Department of Education, 85.4% of students attending Riverdale Elementary School received free and reduced-price meals during the 2016 through 2017 school year (2017). At William Wirt Middle School, 87.1% of students received free and reduced-price meals during the 2016 through 2017 school year. At Parkdale High School, 67.4% of students received free and reduced-price meals during the same year (Maryland State Department of Education, 2017).

Hispanic Populations and Food Security

Reports show that Hispanic households are twice as likely to face food insecurity than white households (Hunger and Poverty in the Latino Community, 2017). This gap in food access makes Latino populations much more vulnerable to the issues associated to food insecurity than most

other cultural or community groups. These issues include physical as well as mental health issues. Physical issues include obesity from a lack of a stable and nutritionally rich diet whereas mental health issues include the stress associated with being food insecure (Becerra, 2015). Additionally, Hispanic households led by women are even more likely than the average Hispanic household to face food insecurity (Hunger and Poverty in the Latino Community, 2017). This indicates that Latina women raising children on their own, or with a stay at home dad are one of the most food insecure groups in the nation. Further data suggests that undocumented Hispanics more likely to be food insecure than documented Hispanics (Hunger and Poverty in the Latino Community, 2017). It is important to highlight communities that have higher vulnerability to social and health issues in order to begin to address the underlying problems that impact the entire nation. Understanding which communities are most at-risk has seen to help in proactively addressing the issue of food insecurity in similarly vulnerable populations (Ford, 2009).

Barriers to food insecurity of Hispanic populations include socio-economic status, citizenship status, and language barriers. These three factors overlap with one another to contribute to a lack of food access for many Hispanic communities, along with other vulnerable populations. Poverty is intimately tied to food insecurity, as financial strains make obtaining nutritious food an obstacle. For example, nearly half of children in families with an annual income below the poverty line also lived in a food insecure household in 2008 (Cardenas, 2016). Furthermore, Hispanic communities tend to experience poverty more often than white communities. This is evident in the fact that 63% of Latino children live in low-income families (Cardenas, 2016).

Second, citizenship status acts as a barrier to becoming food secure because only documented citizens are eligible for government-funded nutrition programs, like USDA's Supplemental Nutrition Assistance Program (SNAP), formerly known as Food Stamps. SNAP provides nutrition assistance to millions of low-income individuals through financial benefits that can be used to buy certain kinds of grains, produce, meat, and other food items (USDA, 2018). While SNAP is a valuable resource for lifting individuals out of poverty and boosting the national economy, it has specific eligibility requirements that prevent undocumented non-U.S. citizens from reaping the benefits (USDA, 2012). In order for SNAP to reach these populations, eligible non-citizens must have lived in the U.S. for at least five years, be receiving disability-related assistance, and/or be a child under 18 years of age (USDA, 2018). Many Hispanic individuals are also undocumented citizens, and this intersectionality bars these populations from program participation. This affects food security of entire households, especially children. Three-fourths of Hispanic children who receive food assistance programs are U.S. citizens, but over half reside in mixed-status households that include non-residents (Feeding America, 2009). Finally, differing levels of English language proficiency act as barriers to food security in Hispanic communities. Studies show that individuals with limited English language skills are less likely to receive Food Stamps (Algert et al., 2006). One policy proposal is adding more Spanish reading materials to their agencies and websites to facilitate understanding.

These several compounded barriers help to explain the higher rates of food insecurity among Hispanic populations. Understanding these factors is vital to filling in the gaps of food access among the biggest ethnic group in Riverdale Park, Hispanic communities.

Methods

Expert Interviews

We conducted ten 30-minute interviews, and one follow-up interview, with leaders of campus and community organizations who are working on addressing food security in Riverdale Park. Six interviews were with individuals involved in campus-based organizations at the University of Maryland, and four with individuals who are part of Riverdale Park-based organizations. Contacts were reached through email and phone, and interviews were conducted either in-person, phone, or email if necessary.

We used a question prompt for the interviews that changed slightly depending on whether the interviewee worked more closely with the Riverdale Park Community or the University of Maryland community (Appendix A). These interviews were conducted to establish whether or not food insecurity exists in Riverdale Park and to what extent the problem affects the community. Our research began with an initial meeting with our client, John, who helped connect us to various organizations and community members who deal with food insecurity. From there, our team conducted several interviews via phone conversation or in-person meetings throughout the months of March and April. Refer to Table 2 for a list of our interviews conducted. Questions probed whether the individual saw food insecurity in Riverdale Park as an issue, and if yes, its extent and distribution; issues related to food insecurity in this specific area; specific programs (in the community or from the University) that specifically address the situation; the success of the Farmers Market and viability of community gardens as a whole in Riverdale Park, and electronic benefit transfer (EBT) card use for programs like SNAP (formerly referred to as food stamps).

Table 2. Expert Interviews on Food Security in Riverdale Park.

No.	Date	Interviewer	Organization & Location of Respondents	Name(s) of Respondents	Designation of Respondents
University of Maryland					
1	2/26/18	Emily and Katelyn	Campus Community Connection Program (3Cs)	Andrew Fellows	Director
2	3/5/18	Emily and Katelyn	Terps Against Hunger	Chetveer Singh	President
3	3/5/18	Katelyn	Food Recovery Network	Annika Vaerst	President
4	3/6/18	Emily and Max O.	Expanded Food and Nutrition Education Program	Dr. Mira Mehta	Director
5	3/8/18	Max S.	New Initiatives, UMD Dining Services	Allison Lilly Tjaden	Assistant Director
6	3/8/18	Emily and Kyle	Maryland Institute of Applied Environmental Health	Dr. Sacoby Wilson	Associate Professor
Riverdale Park Community					
7	2/27/18	Kyle	Christian Life Center at Taylor Rock Church	Ben Slye	Pastor of the Church
8	3/1/18	Andrea, Emily, Gabe, and Max S.	Riverdale Park Farmers Market	Jim Coleman	Director
9	3/2/18	Emily	Parent Engagement at Riverdale Park Elementary School	Sharon Camacho	Assistant
10	3/4/18	Emily	Megamart	Lucy and Carmen	Employees
11*	4/16/18	Katelyn	Christian Life Center at Taylor Rock Church	Ben Slye	Pastor of the Church

*Follow-up Interview

Supermarket Food Assessments

Food availability in Riverdale Park was assessed using two main factors: proximity of major food suppliers to food-insecure residents of Riverdale Park, and relative prices of basic food items from each of the major food suppliers.

We determined stores to conduct assessments at based upon a Google Earth search for Supermarkets and produce retailers within the boundaries of the Town of Riverdale Park. In order to be assessed, the food retail locations had to be supermarkets/grocery stores or farmers markets selling the staple foods listed below. Within this search criteria, the group decided upon La Grande, Mega Mart, Ok Mart, Riverdale Park Farmers Market, and Whole Foods.

To assess prices of basic food items at the various supermarkets in Riverdale Park, we identified a list of staple food items to compare based upon the Wichita Health and Wellness Coalition Retail Food Store Survey. These staple foods consisted of apples, bananas, oranges, lettuce, carrots, green bell peppers, whole wheat bread, white bread, brown rice, 1% milk, cheddar cheese, eggs, chicken thighs, and ground beef (Wichita Health and Wellness Coalition, 2013). Prices of these items in their most common unit of sale were recorded (i.e. price per pound for fruits and meat, milk by the gallon, and eggs by dozen). Prices were recorded on an assessment sheet that was developed by our team based upon the Wichita Retail Food Store Survey. We also assessed whether each food supplier accepted EBT cards (used for SNAP), and whether each location sold fresh fruit and vegetables. This information was then inputted into an excel spreadsheet for comparison. Our findings are reported in the Results section of this paper.

Community Survey

We developed surveys in both English and Spanish and distributed them both electronically and in-person to Riverdale Park residents with the help of community organizations. The survey consisted of a variety of question types, including multiple choice and short answer, and it aimed to assess the prevalence of food insecurity in Riverdale Park via a number of indicators. The first five questions of our survey were taken from the “U.S. Household Food Security Survey Module: Six-Item Short Form”, created by the Economic Research Service, operating under the USDA. Our survey can be found in Appendix B.

The rest of the questions (6-23) were formulated by our group members to address some of the factors causing food insecurity (such as lack of access to supermarkets, income, health, child support, and work hours), in order to gain a better understanding of the problems faced by the Riverdale Park community. Basic demographics questions are included to address the need to better understand our survey respondents and to determine if we had sampling bias. These questions are found in Appendix C.

This 23-question survey was distributed in March of this year and closed a few weeks later, receiving 43 results in total.

John Lestitian, the Town Manager, helped distribute the 23-question survey via the Riverdale Park community email listserv, through which we received a majority of our responses. Other means of electronic distribution included posting the survey on the Riverdale Park, Riverdale Park Farmers Market, Riverdale Park-University Park Patch, EcoCity Farms, and Christian Life Center public Facebook Pages.

In-person surveys were conducted in two locations: the local Megamart store and the Riverdale Farmers Market. Four of the surveys were conducted in person in Spanish on April 17, 2018 at Megamart, a Latino Supermarket in the community, for approximately an hour. We approached individuals who were shopping there and introduced ourselves as undergraduate students at the University of Maryland conducting an assessment of food security in Riverdale Park.

Another location where surveys were distributed was the Riverdale Park Farmers market. We were at the Farmers Market on April 12, 2018 for an hour and approached individuals who were shopping at the market. We used the same procedure as we did at the Megamart, introducing ourselves as undergraduate students at the University of Maryland conducting a food security assessment in Riverdale Park. Most of the shoppers we approached told us that they were not residents of Riverdale Park, and thus fell outside the scope of our assessment. One of the respondents we surveyed told us that his family was food-secure before he began the survey. Since many of the vendors at the market sell specialty food items like freshly baked bread and fruit preserves, rather than staple foods, we decided that conducting our food security survey here might yield a biased result. So, we decided to shift the effort of our survey to the grocery stores in the Riverdale Park area.

GIS Mapping

To analyze the extent to which food insecurity affects Riverdale Park residents, our team utilized GIS analysis to test whether any Census Tracts in Riverdale Park were considered food deserts. First, we defined our food desert analysis variables, which served as parameters for identifying whether a Census Tract was in fact a food desert. The definition that was selected for this project came from The City of Baltimore's Food Environment Map, which defined a food desert as "an area where the distance to a supermarket or supermarket alternative is more than ¼ mile, the median household income is at or below 185% of the Federal Poverty Level, over 30% of households have no vehicle available, and the average Healthy Food Availability Index (HFAI) score for all food stores is low" (Buczynski, Freishtat, and Buzogany, 2015).

We analyzed three of the four variables, including distance to supermarkets or supermarket alternatives (0.25 miles), household income, and vehicle availability. To track distance to supermarkets, we manually inputted the locations of supermarkets and utilized geocoding to create buffer zones at 0.25-mile radiuses. To analyze household income and vehicle availability by Census Tract, we utilized the USDA Food Access Research Atlas Data that was updated on May 18, 2017 (USDA, 2017). Data for the supply of healthy food in supermarkets was collected in our project, however to use HFAI as an indicator for food deserts, it is required to assign scores for all possible food retail locations (Supermarkets, convenience stores, public markets,

etc.) in order to determine an average score for each Census Tract. For this reason, we were not able to include this variable in our criteria. The three key indicators included in our criteria were layered in ArcMap. Regions containing all three layers and located outside of the 0.25-mile buffer zones were extracted and defined as being located in a food desert.

Results

Expert Interview Results

These interviews revealed that many members of the Riverdale Park community are certainly food insecure and many people there reside within a food desert. The degree to which people are affected varies a great deal, as some areas of Riverdale Park, specifically more developed areas, are significantly less prone to food insecurity. These interviews were critical to evaluate and assess food security within Riverdale Park. In this section, we will discuss some key findings revealed from interviews and secondary data collection.

Interview participants from the Riverdale Park community revealed a great deal about food insecurity within the small municipality. Since many members of the community, approximately 17.9% of the population (U.S. Census Bureau, 2017), experiences poverty and inadequate access and affordability to food, community organizations and charities attempt to address the problem in several ways. In the table above, we listed the interviews that took place for our analysis.

The largest distributor of free meal service is the Christian Life Center (CLC) at the Taylor Rock Church. The CLC is responsible for food recovery and food distribution throughout the community. Currently, the organization works with several Hispanic coalitions, as well as Meals on Wheels, UMD's Food Recovery Network, Terps Against Hunger, Whole Foods, and many more to recover and distribute food throughout the community. Some of the major distribution recipients include Riverdale Park Elementary school, William Wirt Middle School, Riverdale High School, several food pantries, and several residential sites including Riverdale Towers and homes of the elderly. The CLC provides food to the public every night, six days a week not including Saturdays. However, many Riverdale Park residents do not attend these events. The reason is unclear, however, Pastor Ben Slye, the Pastor of CLC, believes one possible explanation is that many Riverdale Tower residents are undocumented and afraid to sign their names in the church records upon entry.

The CLC hosts free food distribution events at the Church that serve approximately 200 residents four times throughout the month. The church also provides free meal service to the general public through Meals on Wheels, which distributes to 40 senior citizens in the area daily. Each week, CLC also serves 70-80 trays of food from the University of Maryland Food Recovery Network.

Pastor Ben of the Christian Life Center Church identifies food insecurity as a major problem for the community and believes that certain barriers exist when it comes to fixing it. He attributes

food insecurity to a lack of administrative support in terms of a marketing platform, lack of knowledge, and fear by undocumented citizens. Pastor Ben emphasizes the need to expand awareness of food assistance programs, get backing from Riverdale Park local government, and improve distribution efforts for supplying food to community members who are in need.

The Riverdale Park Farmers Market also seeks to alleviate some of the pressures community members face in affording and accessing available fresh produce. Team members interviewed Jim Coleman, Director of the Riverdale Park Farmers Market, to discuss some of the efforts the market plays in achieving greater food security. Mr. Coleman revealed that EBT cards and a few other food assistance programs were accepted to help increase affordability. He also revealed that the produce sold at the Riverdale Farmer's Market is culturally appropriate and caters to the large Hispanic population by providing a variety of garlic and chili peppers. However, Mr. Coleman would like to include more community members in the effort and expand the overall success of the Farmers market.

The Parent Engagement Assistant from the Riverdale Park Elementary School, Sharon Camacho, revealed much about the problems children face with food insecurity. Camacho serves as a community liaison, who provides information to parents about food resources available. She administers and maintains a database that can inform parents about food resources and distribution events. Throughout the interview, Camacho disclosed that many parents are Spanish-speakers and come from immigrant communities, namely Central America. Parents are hesitant to seek help and apply for SNAP benefits because they remain undocumented and fear deportation. However, children who are citizens can receive assistance and benefits regardless of the citizenship status of the parents. Ms. Camacho also details that three-quarters of the students qualify and receive free and reduced-price lunches from the school. Breakfast is free and available to anyone, regardless of their economic background. Camacho stated that many students come to school hungry and parents need more resources. Despite the many resources and food assistance programs, food insecurity is a major problem that continues to affect many children and their families.

The University of Maryland also has many organizations, groups, professors, and students that work directly with Riverdale Park groups to alleviate food insecurity. To gain greater understanding of UMD's effort, team members interviewed Ms. Annika Vaerst, President of UMD's Food Recovery Network. Food Recovery Network (FRN) recovers excess food and waste from all UMD dining halls, catering kitchens, and the Stamp Student Union. FRN recovers five times a week and delivers food to the CLC, soup kitchens, the Battered Women and Children's Shelter, among others. Each night, 300-500 pounds of recovered food is re-distributed. However, the organization lacks both the funding and volunteers to ramp up its efforts. In order to expand FRN's efforts, they wish to develop and appeal to a larger volunteer base, expand their marketing efforts and work with new facilities in the area.

Another UMD group that distributes food is Terps Against Hunger. Our team interviewed Terps Against Hunger's President Chetveer Singh, who discussed how his organization deals with food insecurity. More so than FRN, Terps Against Hunger serves the wider metro area in providing a

dependable food source for those who are food insecure. Some of Terps Against Hunger's partners include: Capital Area Food Bank, Flight One Carriers, UAID, and SGA Senior Council . Currently, one of their largest projects is a Student Government Association Senior Council sponsored event which donated over 120,000 meals to needy shelters throughout the metro area. Although Terps Against Hunger does not work directly with the Riverdale Park community, Mr. Singh expressed a willingness to set-up a food packaging event in the community to limit food insecurity in the area.

Our team also interviewed, Allison Lilly, Assistant Director of the New Initiatives, UMD Dining Services. Ms. Lilly spoke candidly about UMD Dining Services and the efforts UMD puts into alleviating food insecurity on campus. A survey was conducted during the 2016-2017 school year, and the results revealed that approximately 20 percent of UMD students are food insecure. New Initiatives have been established to help students gain access to adequate food resources, and to collaborate with other groups to spread awareness. Although this organization does not work on food security in Riverdale Park specifically, Ms. Lilly had many suggestions about which type of survey methods and assessments our team could use for our own qualitative data research. Ms. Lilly suggested we use open-ended survey questions to gather ideas for solutions to food security issues. She also suggested we follow the food environment study conducted by the City of Baltimore and John's Hopkins University. Ms. Lilly's advice was both applicable and helpful to our project and New Initiatives was insightful for its addressing in food security.

Lastly, the Capital Area Food Bank (CAFB) is instrumental in working to solve hunger and other problems associated with food insecurity. It is the largest organization in the Washington, D.C. metro area, partnering with 444 community organizations in Delaware, Maryland, and Virginia and feeding 540,000 individuals annually (CAFB, 2018). While we were not able to interview a representative from CAFB, our team did speak to a member of their organization on the phone. The representative directed us towards the CAFB website to find food and other services located in and around specific zip codes in the area that the organization serves. Through this investigation, we were able to discover that the CAFB serves the Riverdale Park community via partnerships with other food assistance programs and food pantries in the area. For example, SEED Inc. Emergency Food Pantry and Praise Housing Network free meals program are just two examples of food assistance programs with whom the CAFB works to better serve the Riverdale Park community. William Wirt Middle School also holds a monthly food distribution event in partnership with CAFB, the Maryland Multicultural Youth Center (MMYC), and Transforming Neighborhood Initiatives every third Thursday of the month. We also became aware of a partnership between the CLC and CAFB in distributing food throughout the community. However, we were not able to collect more detailed information within the time frame of this project. In the future, more research needs to be conducted to quantify the impact these programs have on the surrounding community.

Qualitative data analysis was completed to find associations among interviewee responses. Figure 2 presents a tree map of all the ways each interviewee defined food insecurity. The

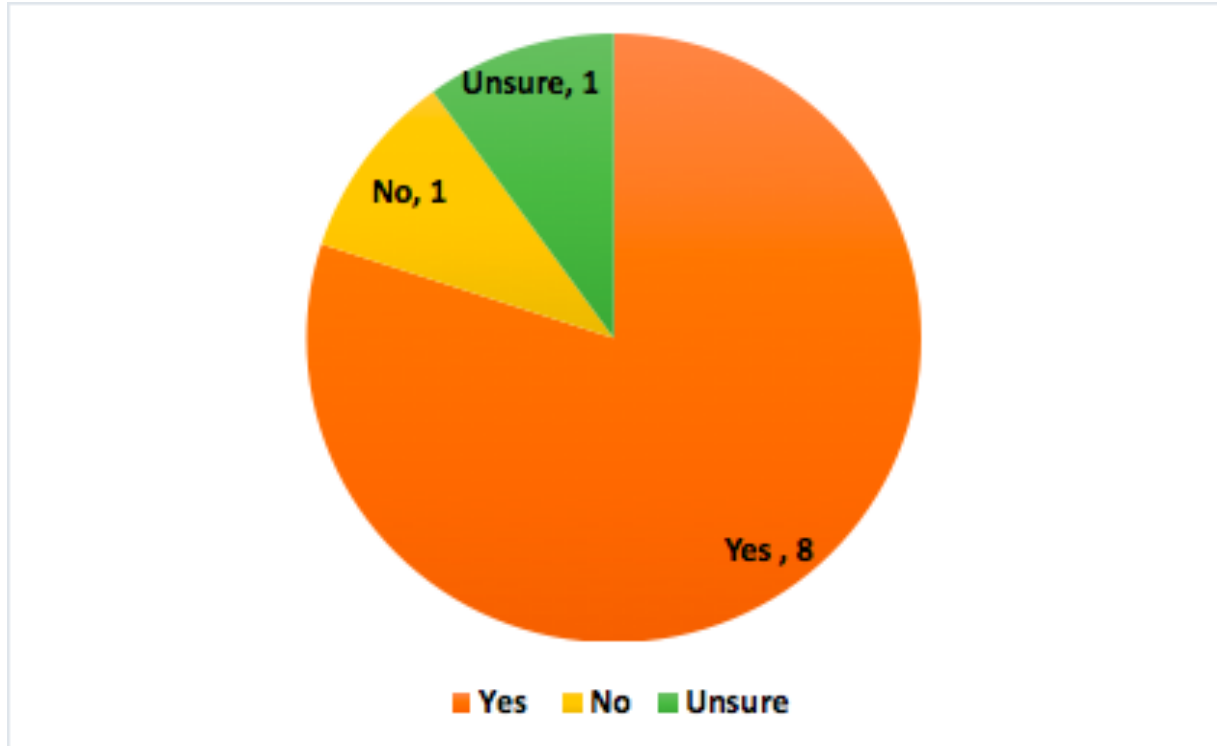
larger boxes on the left were expressed more frequently. The frequency of use decreases to the right.

Figure 2. Interview Response to: “How would you define food insecurity?”



Figure 3 shows the responses from interviewees regarding their opinion as to whether they believe food insecurity is an issue in Riverdale Park.

Figure 3. Interviewee responses to: “Would you describe food insecurity as an issue in Riverdale Park?”



Next, Figure 4 provides responses based upon interviewees regard for having community gardens as a solution for addressing food insecurity in Riverdale Park.

Figure 4. Interviewee responses to: “Do you think residents would respond well to, and volunteer in a community garden?”

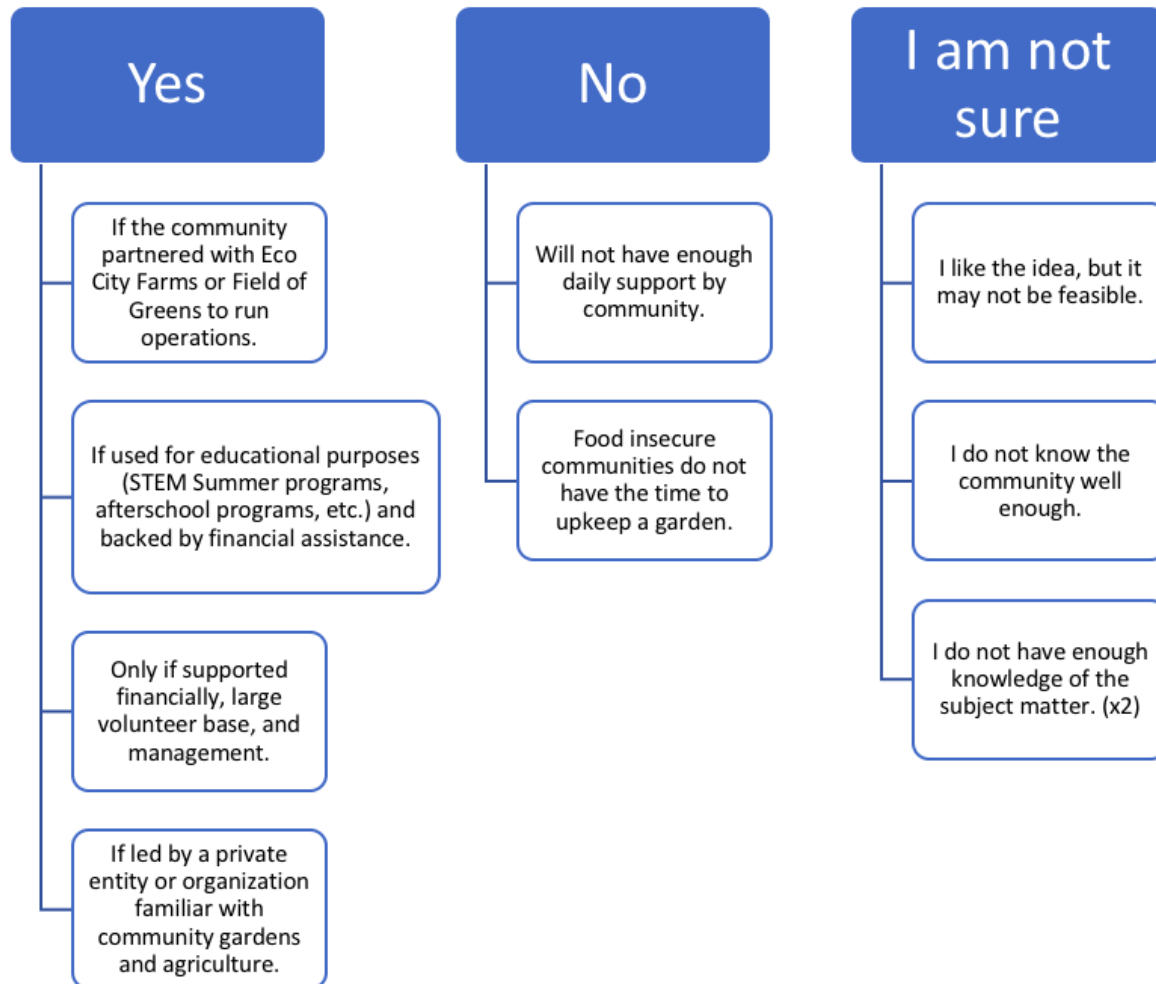
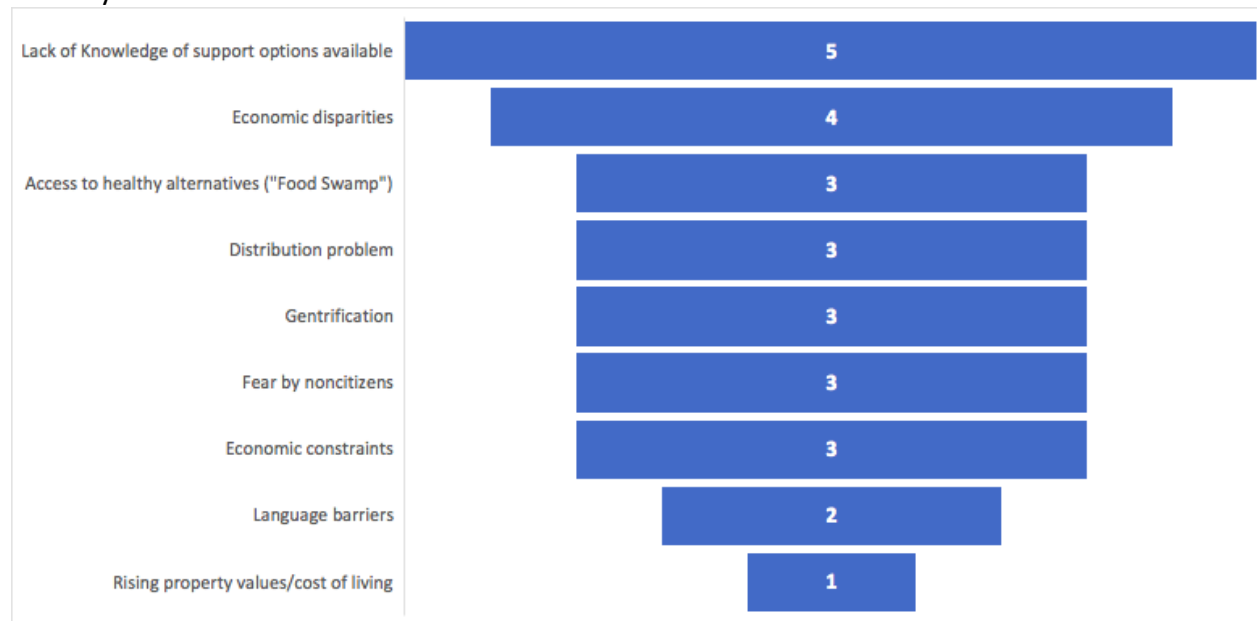


Figure 5 shows the most commonly expressed issues regarding food insecurity among all of the interviewees.

Figure 5. Interviewee responses to: “What do you see as the biggest issues related to food security in Riverdale Park?”



Survey Responses

We encountered significant sampling bias in the survey because certain members of the Riverdale Park community were underrepresented relative to others in the population. We determined this because the survey sample’s average total household income was above average compared to Riverdale Park, predominantly Caucasian, and food secure. We assume that bias stemmed from the online nature of the survey. The population reached by an online survey is limited to those who have Internet access, which we believe excluded much of the population we were intending to reach.

For example, while most of our respondents had an annual household income between \$100,000 and \$150,000, the mean annual household income of Riverdale Park residents is \$61,520 (U.S. Census Bureau, 2017). In addition, most survey participants were Caucasian (82%), with only 16% Hispanic. However, the census affirms that the majority of Riverdale Park is Hispanic (52%). Additionally, an overwhelming 75% of survey participants stated that they have never experienced food insecurity. When comparing this percentage to the Census Food Insecurity variables and our food desert, it is clear that a greater portion of Riverdale Park citizens face food insecurity. We do suspect that food insecurity is a major concern for many individuals in Riverdale Park even though the online results did not reflect that. There is reason to believe that food insecurity is a threat based upon data collected for the Riverdale Park

Community Profile, GIS Map, and Expert interviews. Furthermore, there is reason to believe that the target audience was not reached by the online survey based upon analysis comparisons of the online survey results and in-person survey results recorded at MegaMart.

Due to the belief that a portion of the community was not reached through the online survey distribution, we thought that analyzing the differences between the online and in-person survey results could provide useful results. Because the median income was higher than average among online survey respondents we compared those results to the in-person results (Figure 6).

Figure 6. Income disparities between online and in-person survey respondents.

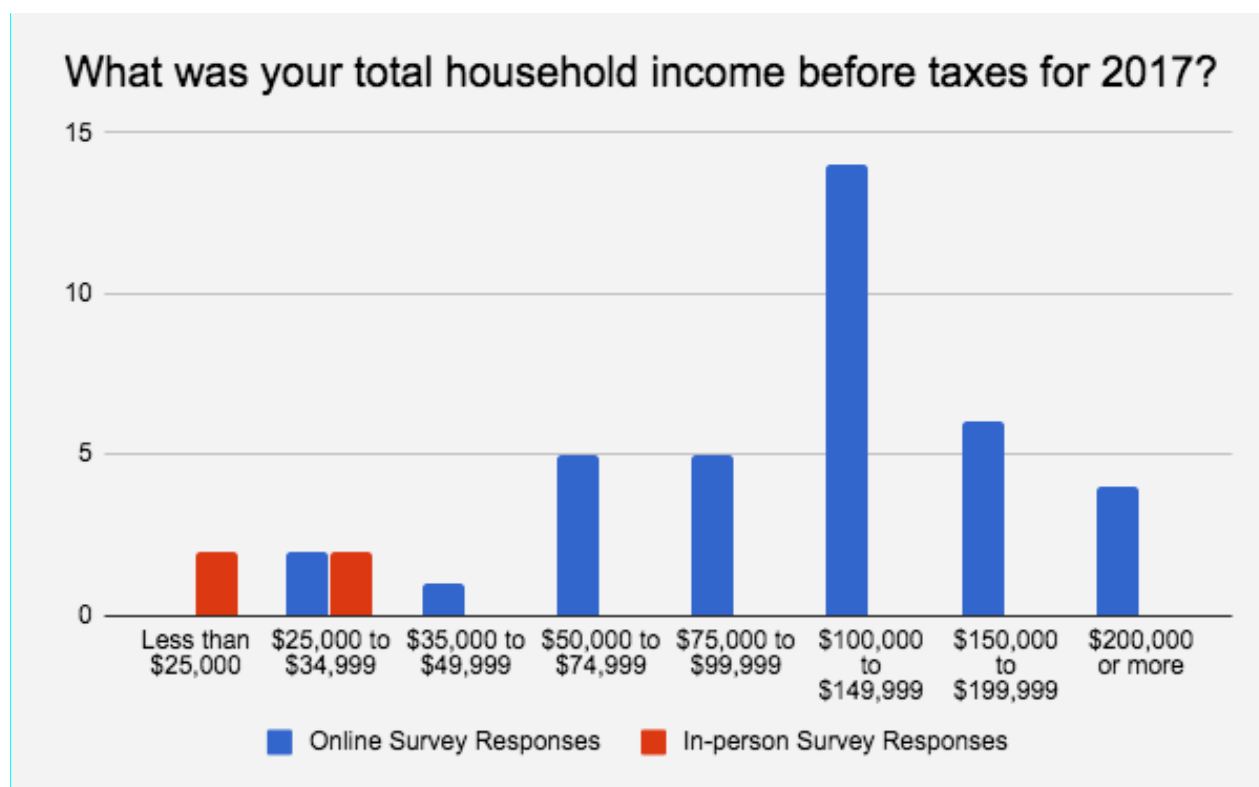


Figure 7 provides an illustration for the primary ethnic populations who were reached by the two surveys.

Figure 7. Ethnic background of online and in-person survey respondents.

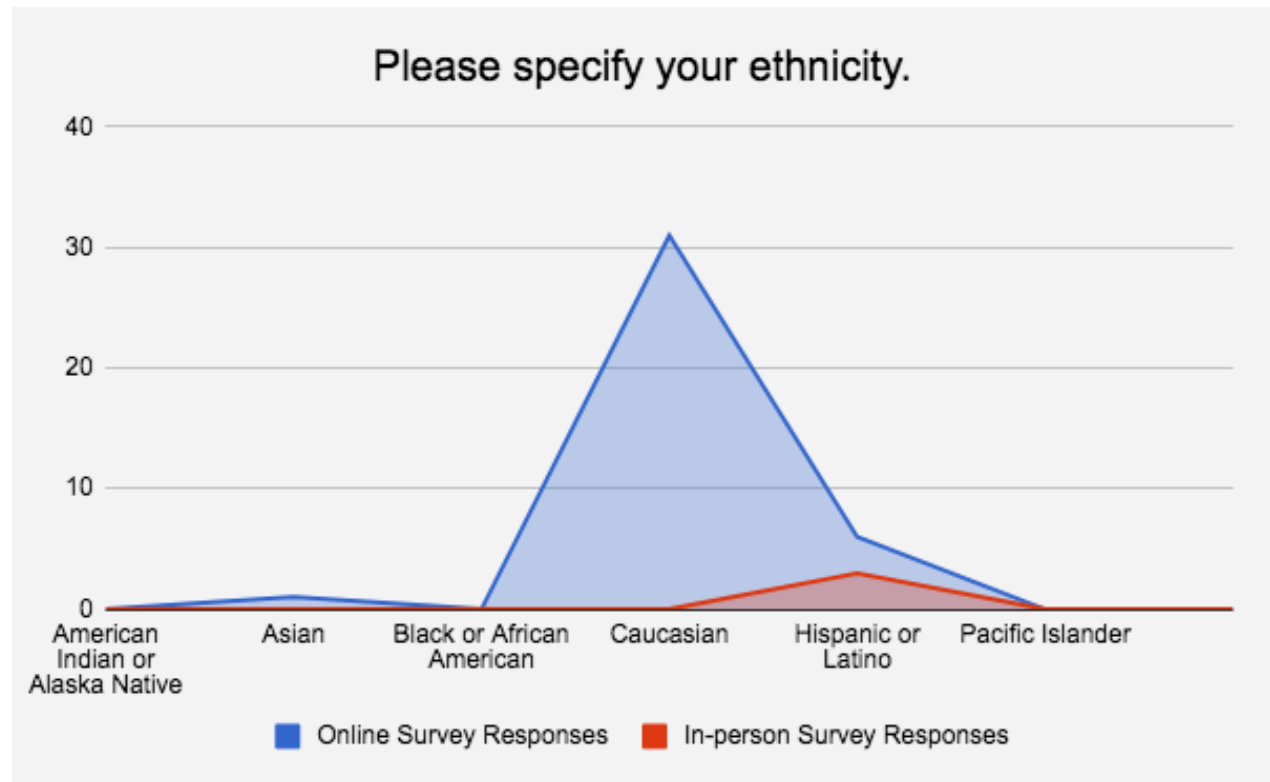
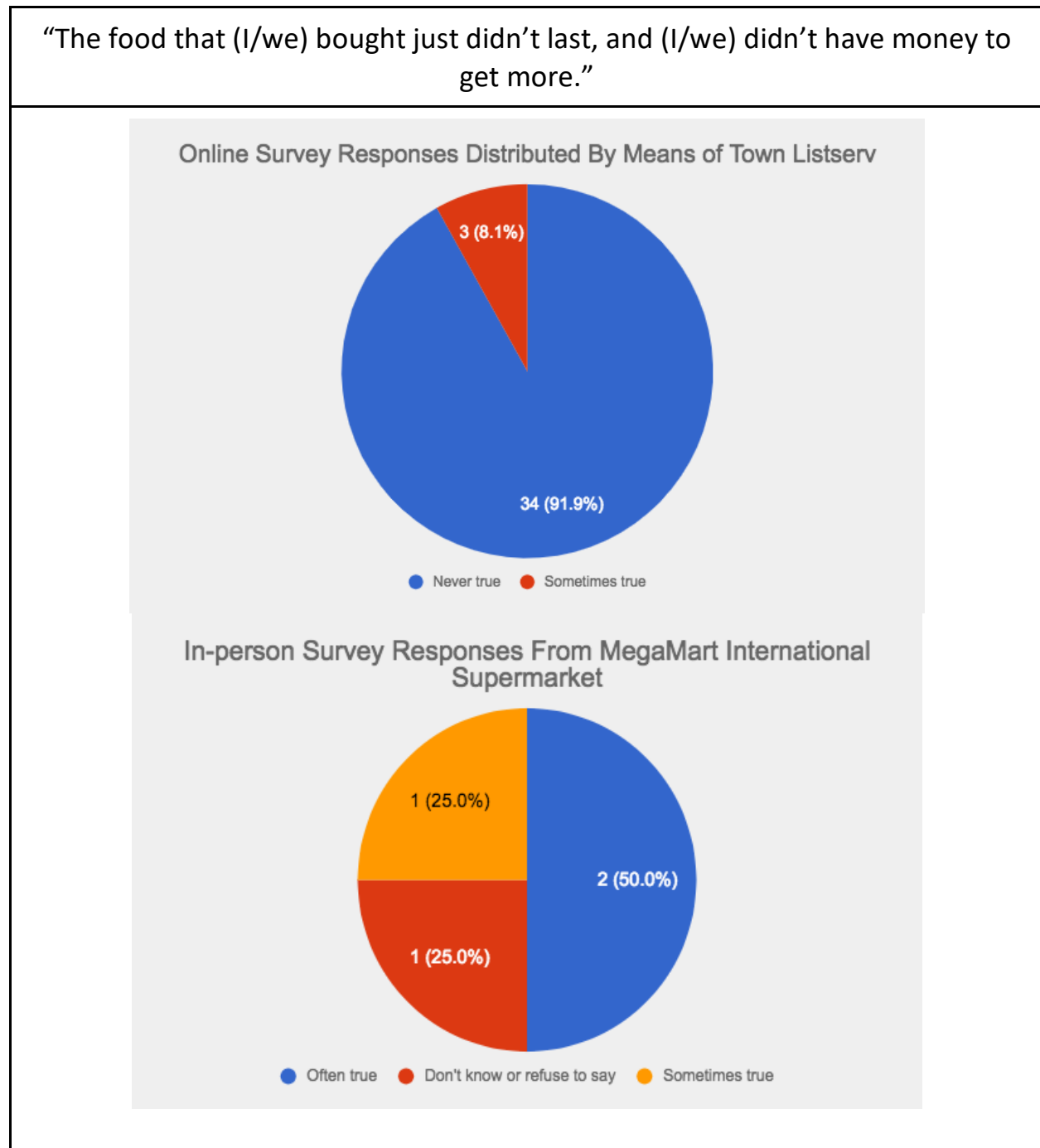


Figure 8 shows the disparity between online respondents and in-person respondents regarding their experience with having insufficient financial capabilities to feed themselves and their family members within the last 12 months.

Figure 8. Disparity among online and in-person survey respondents regarding monthly struggles with money in providing food for themselves and/or family.



While we did have a bias sample for our survey, Figures 9 and 10 provide valuable information that can be used as tools for future planning in regard to tackling food insecurity. Figure 10 in particular provides interesting community feedback because it shows that a major barrier for improving the food security situation in Riverdale Park is a lack of access to information. The two choices with the most number of responses had to do with a deficit in the knowledge of free food programs, distribution events, and the ever-present involvement by many community members in addressing food insecurity.

Figure 9. Survey Responses of ways to increase access to fresh foods in Riverdale Park.

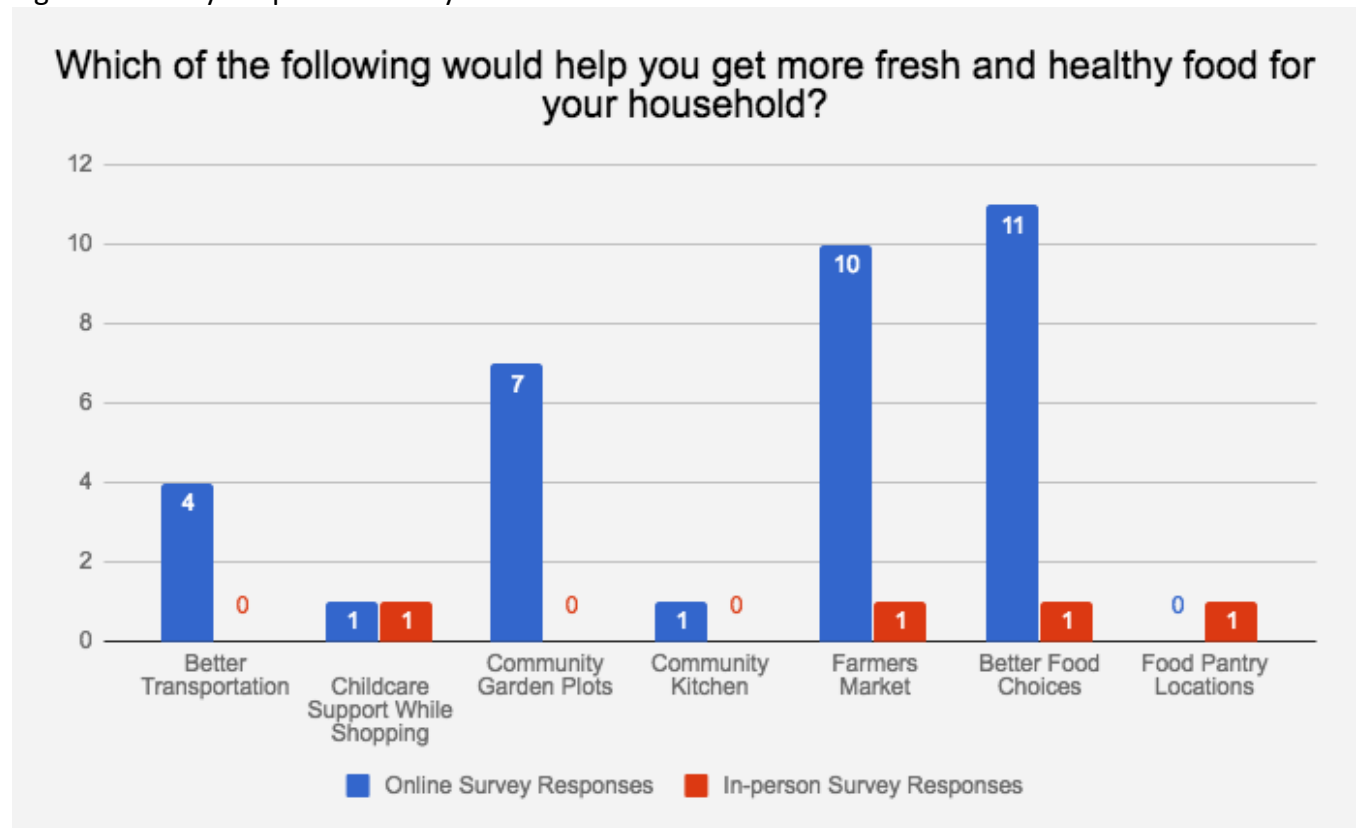
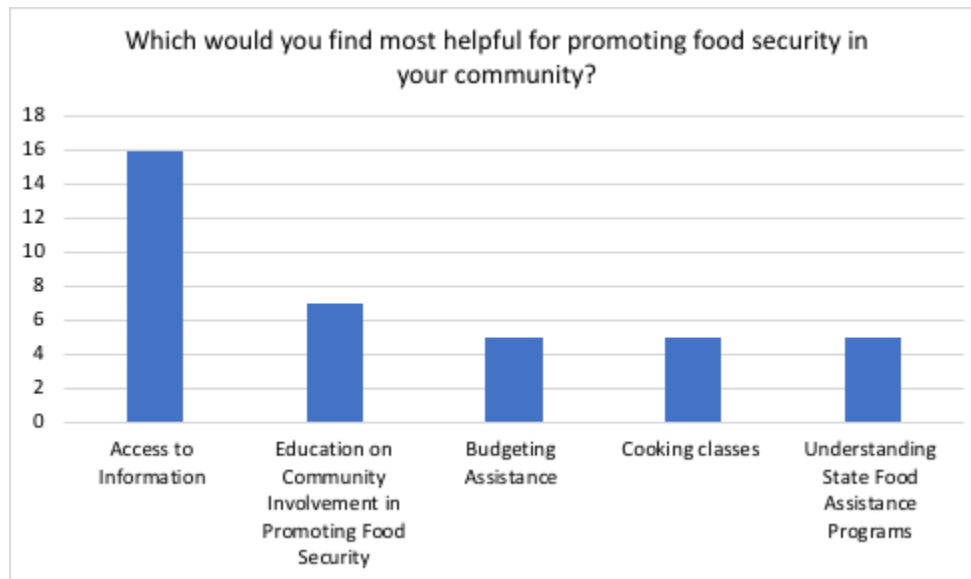


Figure 10. Survey Responses of most helpful resources for promoting food security in Riverdale Park.



Supermarket Food Assessment Data

There are four main supermarkets within the town limits of Riverdale Park, as well as one weekly farmers market. Mega Mart, Ok Mart, and La Grande Mart are located in the eastern part of the town, while Whole Foods Market and the Riverdale Park Farmers Market are located near the western boundary of town. All five of these food retailers sell fresh fruit and vegetables, and accept EBT cards.

We went to each of these supermarkets and conducted a quick assessment, as described above. The prices recorded for staple food items at each grocery store are displayed below.

Table 3. Staple food prices in Riverdale Park.

Store	Apples (\$)	Bananas	Oranges	Lettuce head	Carrots	Green bell pepper	Whole wheat bread
Whole Foods	2.99	0.59	1	2.49	1	1.99	4.79
Mega Mart	1.19	0.99	0.79	1.19	0.59	0.59	3.69
La Grande	1.29	0.69	0.87	1.39	0.79	1.49	3.69
Ok Mart	1.79	0.79	0.89	1.89	0.89	1.99	3.79

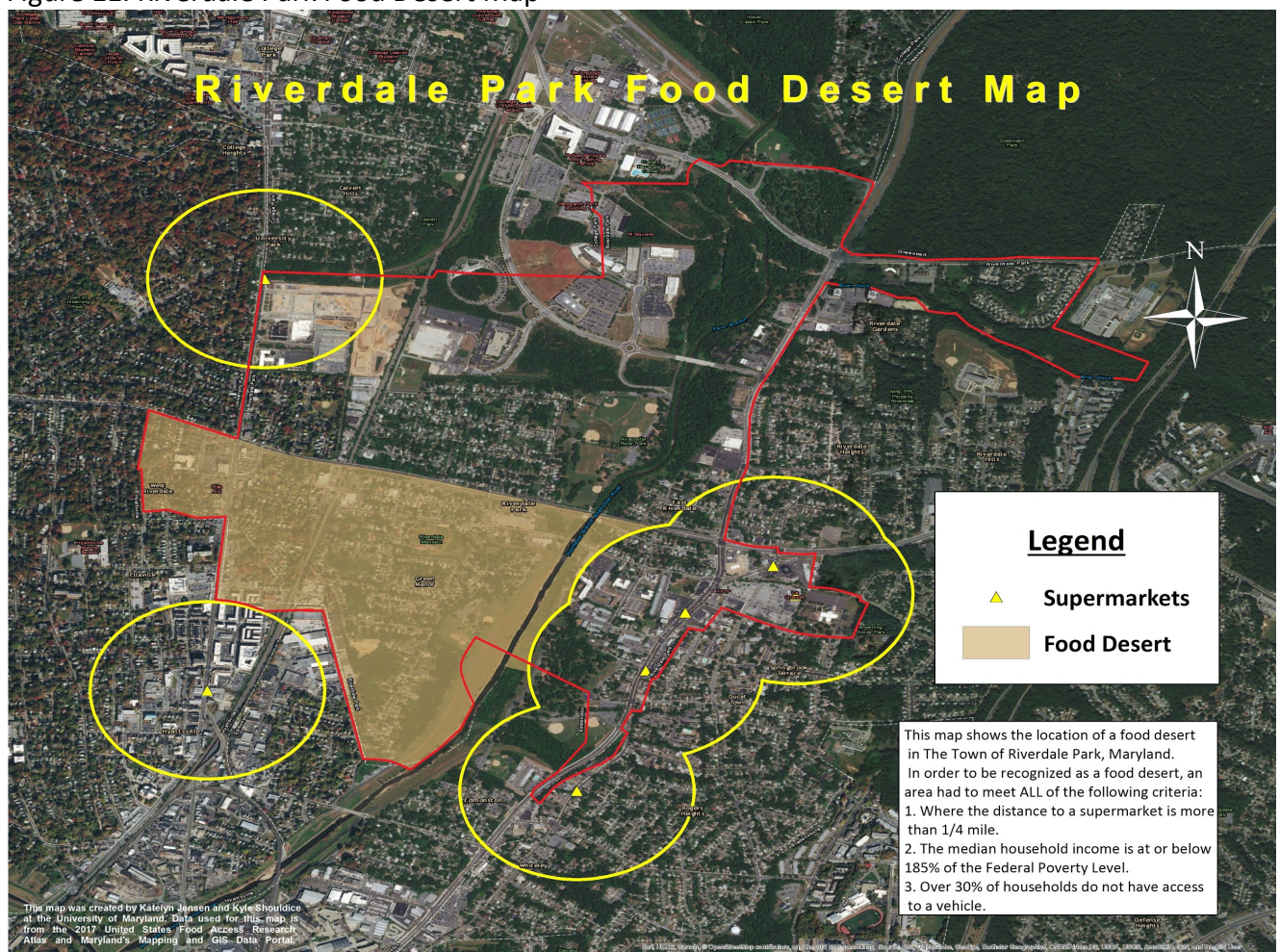
Store	White bread	Brown rice	1% Milk (gallon)	Cheddar Cheese	Eggs	Chicken thighs	Ground beef
Whole Foods	2.99	2.39	3.09	0.37	2.99	3.99	5.99
Mega Mart	2.49	0.99	3.99	0.31	2.79	1.29	3.89
La Grande	1.99	1.59	3.99	0.34	1.79	1.39	2.99
Ok Mart	1.99	1.29	3.99	0.46	2.59	1.39	3.99

As seen in Table 3, prices for staple food items in Riverdale Park are fairly consistent. Whole Foods has higher prices on several items such as meats, rice, bell peppers, lettuce, and apples. However, for the remainder of items, prices remain close with only small differences between the four stores.

GIS Maps

The Riverdale Park Food Desert Map (Figure 11) combines several indicators and layers to reveal that parts of Riverdale Park are indeed a food desert. We determined this area based upon the guidelines from our food desert definition as described above. We utilized Geographic Information Systems to analyze the variable layers, extract census tracts containing the layers, and highlight the food desert in Riverdale Park.

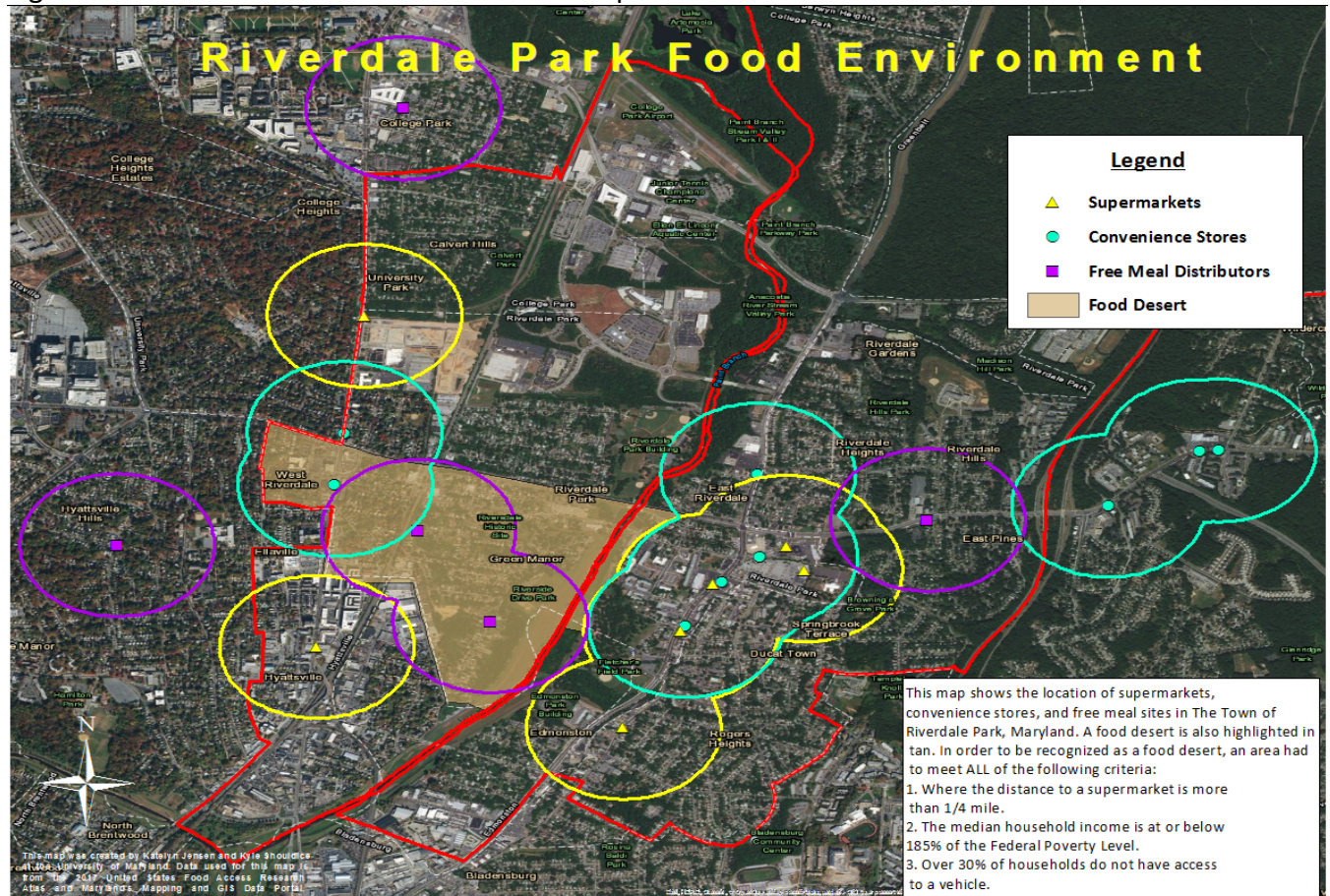
Figure 11. Riverdale Park Food Desert Map



The Riverdale Park Food Environment Map (Figure 12) visually displays the areas located within a food desert. This map includes all of the supermarkets, free meal distribution sites, and convenience stores located in the municipality. Each site is also surrounded by a 0.25 buffer zone. This map shows that even though the food desert is not located within 0.25 miles of a

supermarket, convenience stores and free meal distribution sites are located within the area. The free meal distributors include the CLC and Spring, Inc. at Church of the Open Bible. The convenience store in the area is a Rite Aid.

Figure 12. Riverdale Park Food Environment Map



Discussion

Expert Interviews

UMD groups have different definitions of food security, meaning that they probably go about solving it in different ways. However, our interviews with these groups helped us place the food security issues we were examining in Riverdale Park into a larger context.

Community Survey

We were concerned about convenience sample bias in the survey responses, and it is clear from the responses that bias was a significant issue. The surveys conducted in-person at the

MegaMart grocery store were the most useful for reaching the group of people we wanted to reach. The majority of the online survey respondents are not facing food insecurity. However, the online survey was not a waste of time, as we did learn some useful information from it. Even though the respondents do not personally experience food insecurity, most of them did indicate knowledge that there is a problem of food security within the community. Most people responded that increased access to information and education would be the most helpful for promoting food security within the community. From all the responses we got, there were a few open-ended responses that we thought were especially valuable in describing the situation in Riverdale Park and its possible solutions. The quotes are listed below:

“Reducing processed/fast food options would go a long way to encourage healthy eating habits among residents and in turn save them money and reduce food insecurity. It's probably a pipe dream, but I'd love to see a community garden in place of the McDonald's on Rt 1.”

“From teaching, I know many families struggle from no food some days to maybe someone else will share their little bit with their kids to putting just pasta & tomato sauce on the table. Older kids will eat up the weeks' worth early in week then run to the next kids house to eat up their food leaving the younger ones behind with little to nothing. People coming home from work will throw candy out to kids they know won't have dinner that night. Some kids go to bed hungry early or will act out behavior wise to kill the pain. Can't wait to go to school next day to get breakfast. But these parents work hard, many 2 jobs to pay rent & food. [...] I used to teach art after school. Before going home each week the kids wrote out a healthy snack list and juice which I paid for myself and kids ate before going home after class. Their parents tried hard but I could always hear a few stomachs growling. Just on snacks like granola bars, pb&j, fruit etc one mother sent me a note thanking me for feeding her 3 as she was struggling that week.”

“Education and access to affordable fruits and veggies would be helpful to many of my neighbors as would a community garden.”

“Affordable food needs to be easier to access. Plopping a walkable, Gucci store like Whole Foods in the area while people can't down to stores like MegaMart or Safeway without cars is a gentrification problem.”

From reading these quotes, it is obvious that residents observe a food security issue in Riverdale Park. There are many families in which the parents work hard to sustain themselves, yet they are still not able to provide enough food for their children. This sad state of affairs within the community needs to be addressed, and these responses offer a few recommendations. All recommendations for promoting food security within the community are discussed in a subsequent section of this report.

Food Resources in Riverdale Park

When examining the food resources of the Town of Riverdale Park from the surface, it seems like residents have adequate facilities to access food. The four grocery stores and Riverdale Park Farmers Market provide access to healthy and affordable produce options. However, after conducting an in-depth analysis of the food situation in Riverdale Park, at a smaller scale (census tract level), according to USDA food insecurity criteria and food desert variables, it is evident that a large portion of the town is a food desert.

Meal distribution programs are a key way for addressing the food needs of Riverdale Park residents. As discussed in the results section, the Christian Life Center in conjunction with UMD campus groups such as Food Recovery Network and Terps Against Hunger, provide an important avenue for Riverdale Park residents who cannot always afford groceries. This center is located in the area considered a food desert. Therefore, it should be a major part of the future efforts to address food insecurity.

Recommendations

Food Policy Council

As urban areas spread in size and population, it will become increasingly crucial to health and well-being for urban planning to take the food system into account. The creation of sustainable urban areas that are walkable and bike able, and where affordable healthy food can be accessed by all segments of the population should be the goal for urban planners. While reaching this end goal would be ideal, simply getting food planning on the political agenda in urban areas is a crucial first step (Morgan, 2010). The creation of food policy councils is one way to achieve this. There have been 15 communities in the U.S. and Canada institute such councils. These councils bring together different stakeholders from the food system and give them a forum to monitor food access in their communities, and develop policies to move towards more equitable, affordable, and sustainable food access (Pothukuchi and Kaufman, 1999). Cities like Baltimore have been able to achieve this. The Baltimore Sustainability Plan was created in response to concerns from residents about the poor access to affordable and healthy food in the city. The plan calls for a food system that boosts quality of life and public health and identifies food vendor locations as an integral part of their urban planning (Morgan, 2010).

Community Gardens

Another suggestion mentioned by multiple survey respondents is the installation of a community garden. Community gardens can be great for providing everyone with healthy, affordable, freshly grown food (Alaimo et al., 2016). A Riverdale Park community garden would provide residents with an incentive to participate in a shared community activity that encourages nutritious eating and sustainable living (Alaimo et al., 2016). Due to the presence of a food desert as shown in our GIS maps, many people in Riverdale Park do not have regular

access to fresh fruits and vegetables. Given these restrictions, a community garden could be the best solution for promoting food security and education.

We cannot know whether the community of Riverdale Park is sufficiently motivated to create and maintain a garden today. However, the results of the food survey we conducted showed that community agriculture was one of the most popular potential solutions to the issue of food security. A large portion of Riverdale Park's population are immigrants from Central America (United States Census, 2018). Moving into the realm of conjecture, in countries such as El Salvador, it is more common for the average citizen to participate in agriculture, particularly in rural areas. According to our interviews, these immigrant communities are especially susceptible to food insecurity. These residents of Riverdale Park may be more experienced, able and willing to grow some of their own food than we give them credit for. In this case, they may be held back by the initial costs of creating a new garden but would be willing to participate and be a self-leader should the opportunity arise. Additional community outreach would certainly be necessary to galvanize enthusiasm for the project.

Prince George's County in 2018 passed amendments to the zoning ordinance governing urban agriculture (Drakeford, 2017). These amendments classified urban agriculture into two types: community gardens and urban farms, where the first produces food for personal use or free distribution and the latter produces food for sale. Community gardens require no specific permits or permissions and are allowed by-right. Urban Farms are also allowed by-right, but not in areas of Transit-Oriented Zones (Carlton, 2007). This factor will reduce the cost and streamline the process of creating a community garden in Riverdale Park. We are fortunate to be working in an area with such progressive urban agriculture policy.

Although it could be a successful intervention, several challenges exist in the creation of a community garden. A suitable space for agriculture must be available in the vicinity, community interest must be established to accomplish the labor and maintenance of a garden, and city codes must be complied with before new developments can be made. In the case of Riverdale Park, compelling arguments can be made that all these prerequisites are, or could be, met. Some areas in Riverdale Park in the floodplain of the NE Branch Anacostia River are susceptible to extreme flooding events. This makes them unsuitable for commercial or residential spaces, but the alluvial soil found in floodplains is generally fertile for agriculture (Brady, 2010).

However, there are also other downsides to community gardens. Fruits and vegetables cannot just grow anywhere; they require certain nutrient levels in the soil, a specific pH level, and many more requirements. Preparing the community garden to be able to grow various fruits and vegetables could end up being very costly. This money would have to come from somewhere, which could pose a major roadblock for the installation of a community garden. Also, people would have to regularly tend to the garden. It is possible that the residents of Riverdale Park who are actually experiencing food insecurity do not have the time to worry about a community garden. If there are parents working two or more jobs already, they may not have the spare time to also tend to a garden. If a community garden were put into place, there is a chance that it would only benefit the wealthier members of the community because

they would have the leisure time to spend tending to the garden (Badami & Ramankutty, 2015). According to Badami and Ramankutty (2015), there are many constraints to potential urban agricultural solutions, such as physical available space and leisure time of the surrounding community to spend working in the garden. Even though a community garden sounds like an excellent idea for Riverdale Park, there is a possibility that it would only widen the gap between the wealthier residents of Riverdale Park and those who are struggling to put food on the table every day. This is also an issue that would require further community outreach to assess people's ability to spend time gardening.

Home Gardens

If a community garden does not work for Riverdale Park, there is another potential urban agriculture solution that could promote food security in the town. A case study conducted in San Jose, CA demonstrates the benefits of home gardening. This form of self-subsistence farming could provide each individual family with enough healthy, affordable, and fresh food so they do not have to worry as much about being able to afford another trip to the grocery store (Gray et al., 2014). With a home garden, each individual can choose how much time they want to spend working in it. This would possibly eliminate the time availability factor that limits the feasibility of a community garden. Many residents of Riverdale Park live in apartment homes, so they do not have access to land of their own. We recommend that apartment complexes provide a garden area for tenants who intend to use it. For homeowners in Riverdale Park, a home garden capable of growing fresh produce just for that homeowner's family will not take up much space. A garden with an area of around 500 square feet (barely more than 0.01 acres) should work fine for feeding a family of four for a growing season (Day, 2011). If a majority of people in the community were able to do this, perhaps food secure homes in Riverdale Park would begin to increase.

Website or Community Forum

Throughout our interview and survey research, one major disparity we found amongst respondents and interviewees alike was the lack of communication between groups and the lack of knowledge about distribution events or free meal sites. For this reason, we propose the chief sustainability officer implement a website or live document to create facilitate amongst groups. If each group, whether that be UMD or Riverdale Park related, create a comprehensive list that can be regularly updated when distribution, free meal, food packaging events, etc., occur, then people could gain access to much more knowledge about Riverdale Park. Along with a comprehensive list to promote coordinate amongst groups, we also recommend the website have tabs about food and nutrition education. This would include lists of vegetables at the Farmer's Market and their nutritional values as well as healthy/easy recipes to prepare for the family. If implemented, this website could revamp the food security process entirely.

Limitations and Future Research

Limitations

There were various limitations in our project. A central limitation was communication with both the public and the various groups and individuals we needed to contact in order to assess the issue of food insecurity. The biggest limitation was the sampling bias in our online survey. Although we developed a Spanish language version of our survey, we did not account for the fact that the most at-risk Hispanic populations might not have adequate access to a computer or the internet, nor would they have received through in the various distribution methods we used. Because of this limitation, we were unable to get more feedback from this group and would suggest that if this be done in the future, a better approach is to conduct in-person surveys in areas that these groups frequent. Communication with various organizations and individuals was also a limitation to the data we were able to collect. A lack of direct access to some of these individuals made it difficult or impossible to get a complete picture of what food distribution looked like in Riverdale Park. We also suggest this be addressed if this project continues.

Other limitations that we realized upon completing the in-person surveys in Megamart was lack of incentive to complete the survey and the obstacles with completing it in a grocery store, potentially in a rush and/or with small children. One individual we spoke to had a young daughter who we had to keep distracted for their mother to be able to complete the survey. Also, many shoppers were rushed to purchase groceries and did not have time to complete a 20-minute survey. Lastly, it's possible that we would have received more responses had we had financial incentives to offer. Because the survey was on the longer side, we think financial incentives could have increased the number of responses. These could have included respondents entering a raffle to win a gift card, or cash incentives for completing the survey.

Future Research

Our assessment of food security in Riverdale Park is not comprehensive. We performed the level of background research, primary, and secondary data collection that was plausible given our time constraints. However, there is more work to be done to fully understand the issue of food insecurity in Riverdale Park. One of the main areas that we feel our initial assessment could be improved upon by future groups is by expanding our survey outreach in the Riverdale Park community. While we did gather 43 responses from our online survey, our results indicate that we did not reach the segment of the Riverdale Park population that is most impacted by food insecurity. Some of our most interesting survey responses came from the in-person surveys that we distributed in person to shoppers at Megamart. Due to time constraints, we only gathered four of these responses. In order to best understand why Riverdale Park residents are impacted by food insecurity, and how best to address the issue, we would recommend that future groups greatly expand on the number of in-person surveys that are distributed, especially among target populations, many of which are Spanish-speakers.

We also recommend that future groups consider shortening the length of the survey. Although we did not have many issues with respondents skipping questions, we feel that for ethical reasons the survey should not take respondents more than five minutes to complete unless financial incentives are provided. During our experience handing out surveys in-person, we found that respondents were taking between 10 and 15 minutes to return the surveys. Removing a handful of questions could still provide us with adequate insight and allow us to better respect the time of the respondents.

We also feel that exploring the possibility of community gardens could be a task future group take on in their research. Adding survey questions about the public's opinion on community gardens, and whether they have the time to participate in such an endeavor could be helpful. This new data could be built upon by researching possible locations in Riverdale Park for a community garden and looking into whether such a project could be successfully incorporated into the community.

Lastly, we recommend completion of the comprehensive list or document provided by food vendors and free meal distributors to the people. This website should have multiple tabs including the dates of distribution events, where people can access free meals, nutrition facts and nutrition educations, as well as healthy recipes for parents. This research project could be implemented as a supplemental project as well.

Conclusion

Having completed all of our community assessments, we can say with some certainty that there is a problem of food insecurity in Riverdale Park. While we did not get the survey results we initially intended, the survey still provided valuable insight into the community, through which we could tell there is a problem. The GIS maps we made confirmed the presence of a food desert in the lower-income area of Riverdale Park, which is likely where the root of the issue lies. For future Capstone projects, we highly recommend finding ways to get involved with this part of the community, since they are most at-risk for food insecurity affecting their daily lives.

As for Riverdale Park, we recommend improving the efficiency of their food distribution centers, as well as trying urban agriculture programs within the community to promote healthy eating and sustainable living. Even though urban agriculture can come with an expensive up-front cost, this approach could be well worth the initial capital.

Food security should be considered a basic human right. However, despite all efforts of state and local governments, some communities fall through the cracks and experience the inability to purchase the healthy and nutritious food they require. Building upon our work this semester, we hope future Capstone projects and future state/local government endeavors will eradicate food insecurity in all communities and provide each and every family the nutrition they need to live a healthy and fulfilling lifestyle.

Appendices

A. Expert Interview Question Prompt

B. Riverdale Park Food Security Survey USDA ERS “Six-Item Short Form of the Food Security Survey Module” Questions

C. Riverdale Park Food Security Survey Questions 6-21

D. Riverdale Park Food Security Survey Results

A. Expert Interview Question Prompt

Interview Questions

Riverdale Park Community Members:

1. Would you describe food insecurity as an issue in Riverdale Park?
 - a. If not, why? If so, can you further explain the extent and distribution of this issue?
2. What do you see as the biggest issues related to food security in Riverdale Park?
Examples:
 - a. Can people not afford their groceries?
 - b. Do people not have access to healthy food options?
 - c. Can people get adequate transportation to the store?
 - d. Are there culturally appropriate food options? Etc.
3. Can you speak about any programs that you know of that have tried to address the issue of food security in this community in the past, or programs that are currently underway?
4. Do you think residents would respond well to, and volunteer in a community garden?
5. Do you know much about the farmers market in Riverdale Park?
 - a. Is there good attendance from Riverdale Park members or is it mostly people from other communities?
 - b. Do many people use food stamps/EBT cards there?
6. For contacts in food sales industry: How often do you notice customers using EBT cards? If you know, how much do these customers usually spend?
7. Do you know of any partnerships/involvement with any UMD student organizations regarding food security?

UMD Campus Community:

1. Would you describe food insecurity as an issue in Riverdale Park?
 - a. If not, why? If so, can you further explain the extent of this issue?
2. What do you see as the biggest issues related to food security in Riverdale Park?
Examples:
 - a. Can people not afford their groceries?
 - b. Do people not have access to healthy food options?
 - c. Can people get adequate transportation to the store?
 - d. Are there culturally appropriate food options? Etc.
3. Can you speak about any programs that you know of that have tried to address the issue of food security in this community in the past, or programs that are currently underway?
4. What has been your role in the Riverdale Park and/or University community as far as addressing food insecurity?
5. How frequently has your organization been delivering food to the Riverdale Park community?
6. How did your organization first become involved in food assistance in this community?
7. Are there any obstacles to your organization continuing to deliver food regularly to this community?
8. Are you aware of current projects addressing food security in the DMV area?
9. Do you have partnerships/involvement with any other UMD student organizations?
 - a. List:
10. Do you have partnerships/involvement with specific community members or groups in Riverdale Park?
 - a. List:
11. Would your organization be willing to participate in promoting food security in Riverdale Park?
 - a. To what extent?
12. Do you have any suggestions for solving the food insecurity issue in Riverdale Park?

B. Riverdale Park Food Security Survey USDA ERS "Six-Item Short Form of the Food Security Survey Module" Questions

Riverdale Park Food Security Survey Questions used from the USDA ERS “Six-Item Short Form of the Food Security Survey Module”

“For the first several statements, please tell me whether the statement was often true, sometimes true, or never true for (you/your household) in the last 12 months—that is, since last March. Please select the appropriate choices to the best of your ability” (USDA, 2012, “U.S.”).

1. “The food that (I/we) bought just didn’t last, and (I/we) didn’t have money to get more.”
2. “(I/we) couldn’t afford to eat balanced meals.”
3. In the last 12 months, how often did you (or other adults in your household) decrease the size of your meals or skip meals because there wasn't enough money for food?
4. In the last 12 months, did you ever eat less than you felt you should because there wasn't enough money for food? Yes, no, do not know.
5. In the last 12 months, were you ever hungry but didn't eat because there wasn't enough money for food? Yes, no, do not know.

C. Riverdale Park Food Security Survey Questions 6-21

Riverdale Park Food Security Survey Questions (6-22)

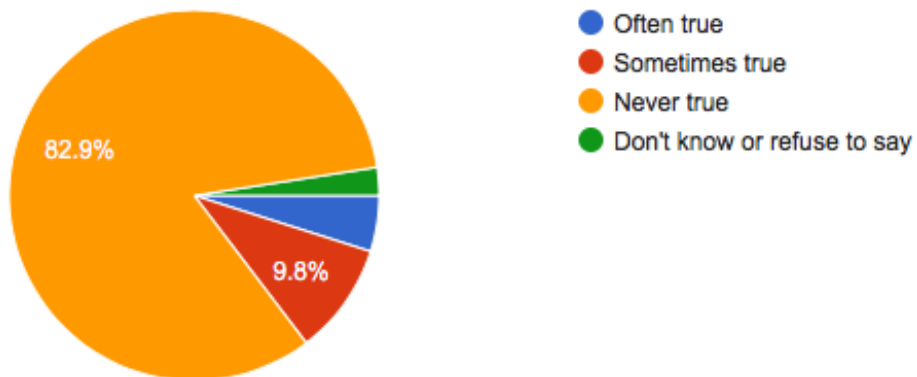
6. In the last 12 months, have any of the following stopped you and your family from buying the food you need? Please select all that apply. Rent, utilities, medical expenses, child support, transportation, price of food, illness/disability, lack of time, distance to stores, safety concerns, other, nothing.
7. Where do you shop most for food? Supermarket, convenience store, international market, farmers market, supercenter, wholesale, online.
8. What is the most important to you when buying food? Price, nutrition, quality, convenience, locally grown, fresh produce availability.
9. How many servings of fruits and vegetables do you have each day? 0, 1-3, 4-6, 7-10, >11.
10. Which of the following would help you get more fresh and healthy food for your household? Better transportation, childcare support while shopping, community garden plots, community kitchen, farmers market, better food choices, food pantry locations.
11. Which would you find most helpful for promoting food security in your community? Access to information (Nutrition/Healthy Eating), education on community involvement in promoting food security, budgeting assistance, cooking classes, understanding state food assistance programs.
12. Do you currently reside in Riverdale Park? Yes, No.
13. Please specify your age.
14. Please specify your ethnicity.
15. What is your religious identification?
16. What is your marital status?
17. What is the highest degree or level of school you have completed?
18. What is your current employment status?
19. What was your total household income before taxes for 2017?
20. How many adults live in your home?
21. How many children live in your home?
22. Is there anything else you like to share with us about food?

D. Riverdale Park Food Security Survey Results

Survey Question 1.

"The food that (I/we) bought just didn't last, and (I/we) didn't have money to get more."

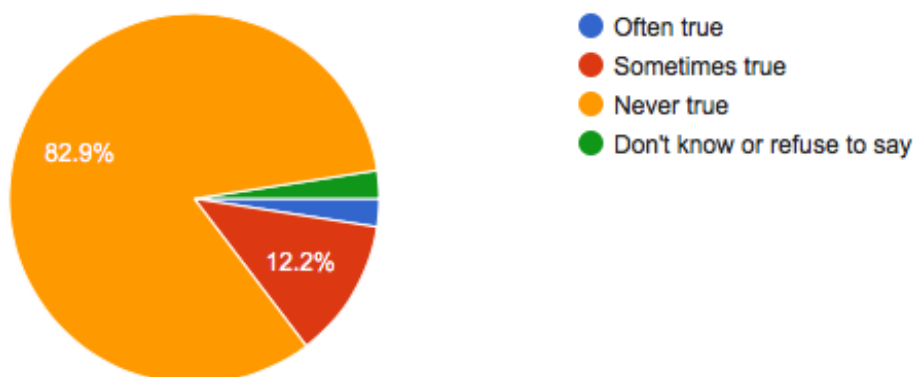
41 responses



Survey Question 2.

"(I/we) couldn't afford to eat balanced meals."

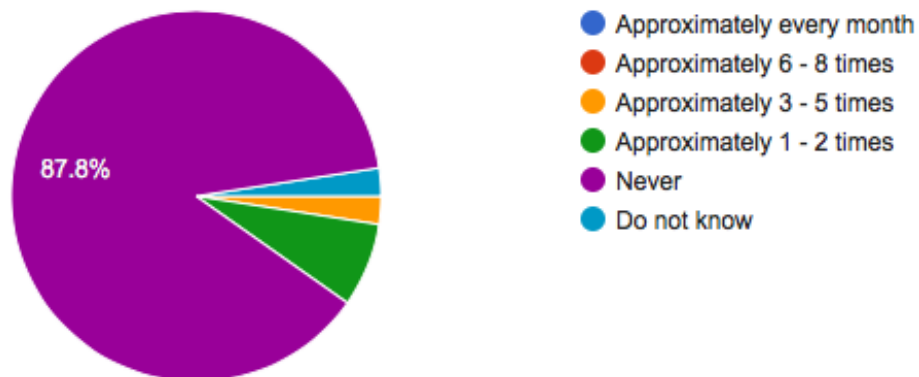
41 responses



Survey Question 3.

In the last 12 months, how often did you (or other adults in your household) decrease the size of ...re wasn't enough money for food?

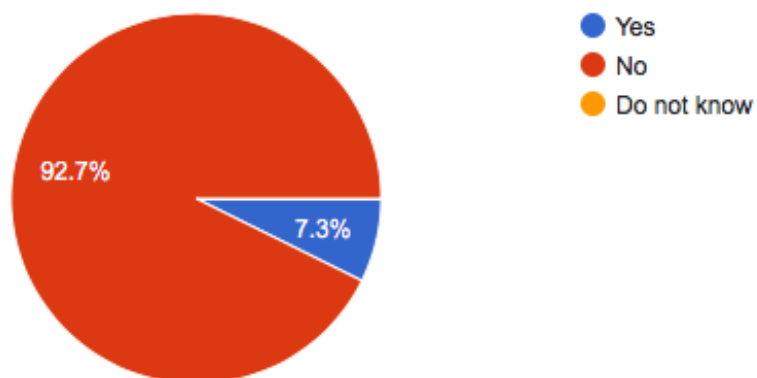
41 responses



Survey Question 4.

In the last 12 months, did you ever eat less than you felt you should because there wasn't enough money for food?

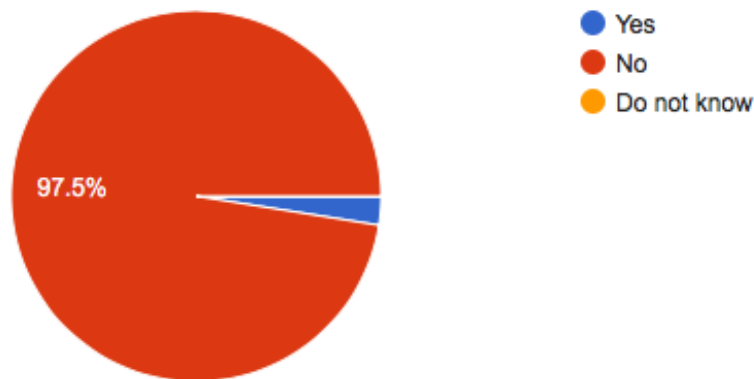
41 responses



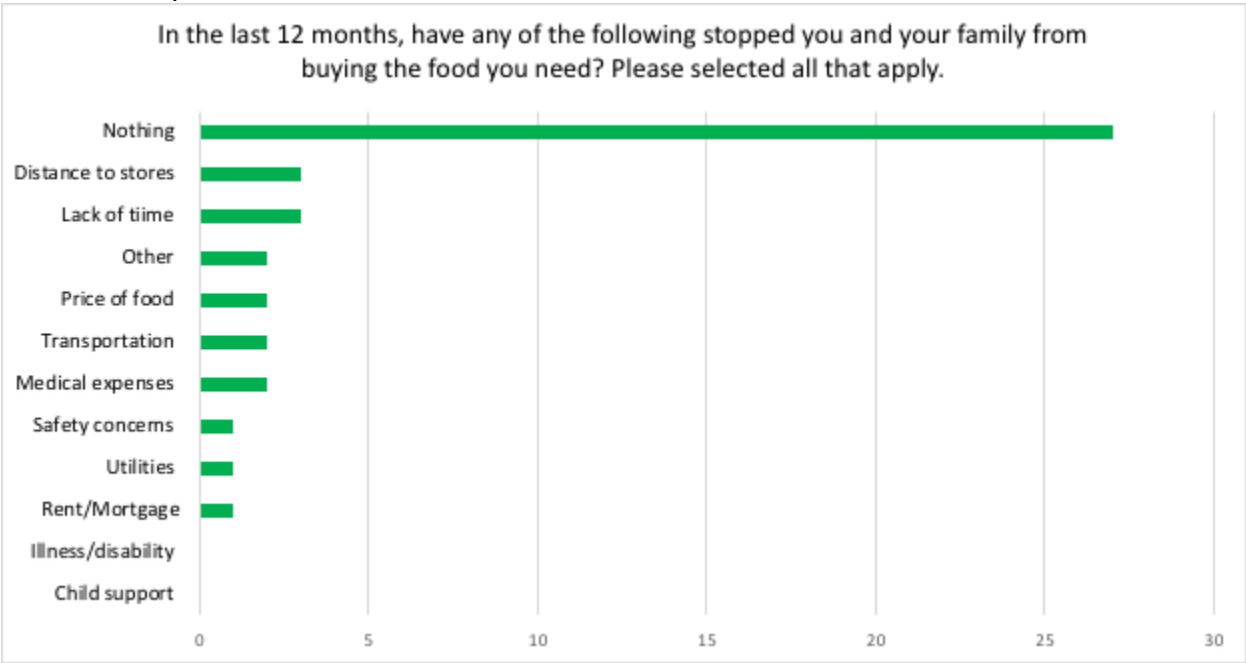
Survey Question 5.

In the last 12 months, were you ever hungry but didn't eat because there wasn't enough money for food?

40 responses



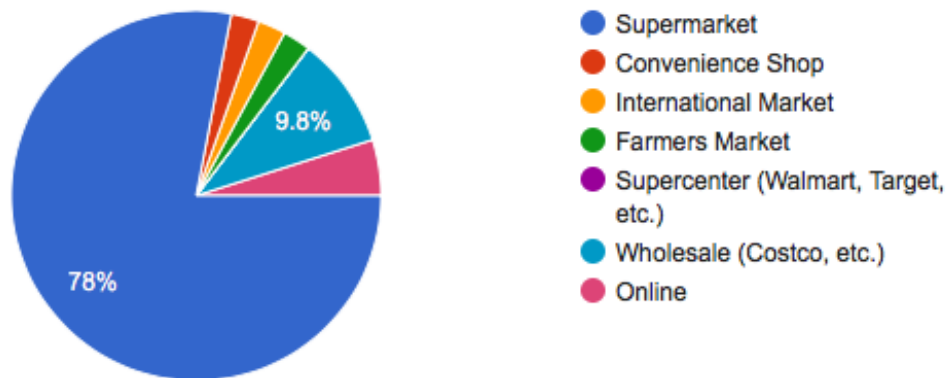
Survey Question 6.



Survey Question 7.

Where do you shop for food most often?

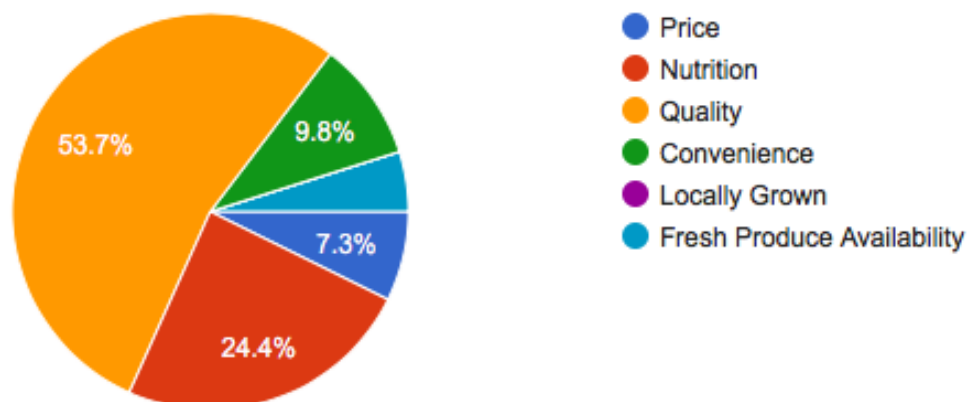
41 responses



Survey Question 8.

What is the most important to you when buying food?

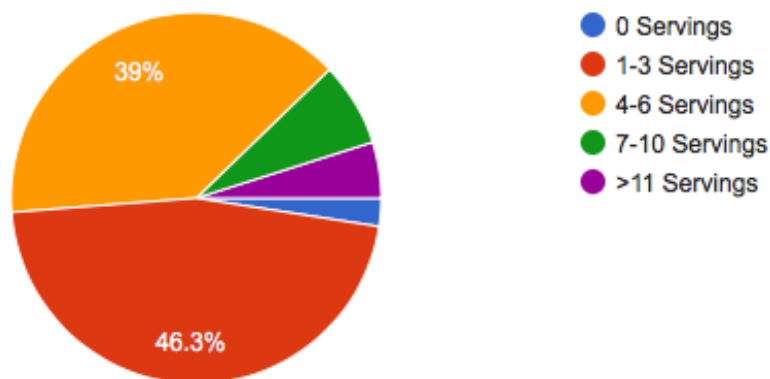
41 responses



Survey Question 9.

How many servings of fruits and vegetables do you have each day?

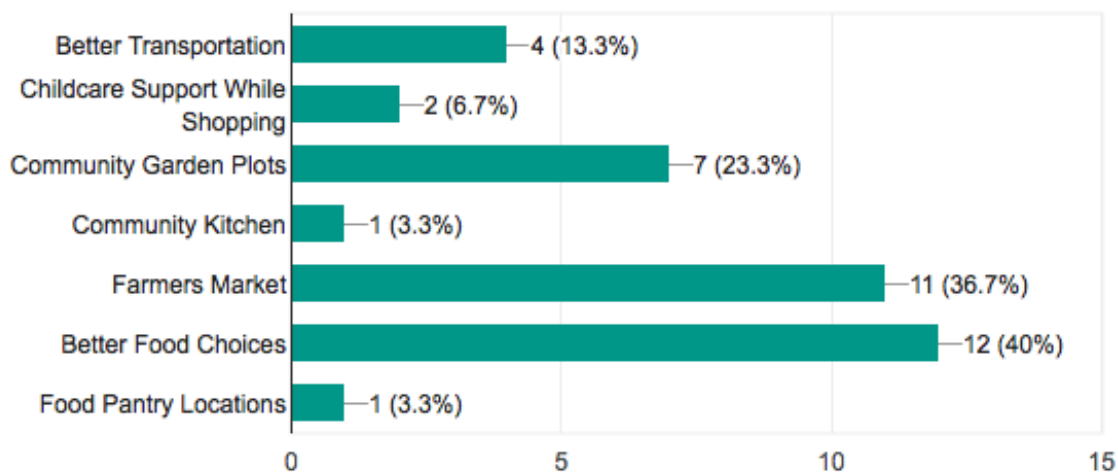
41 responses



Survey Question 10.

Which of the following would help you get more fresh and healthy food for your household?

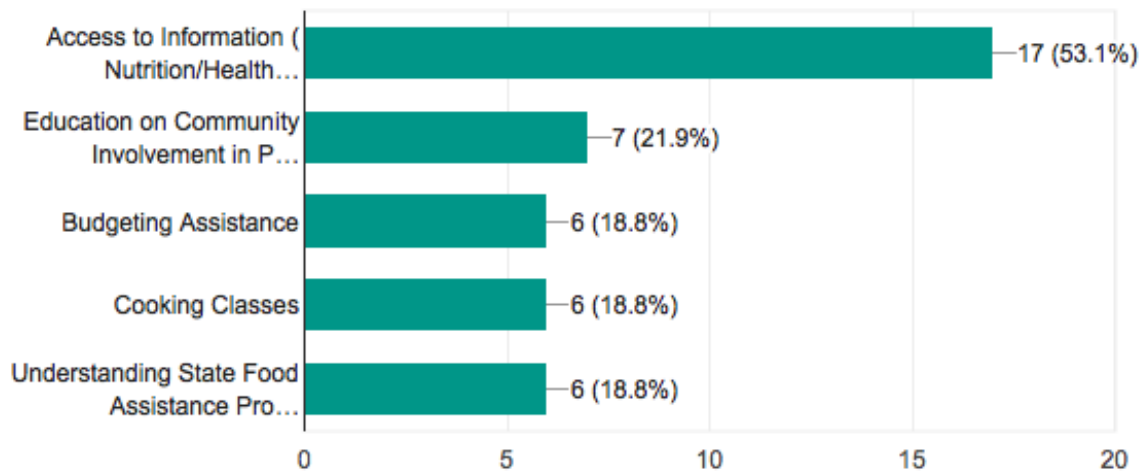
30 responses



Survey Question 11.

Which would you find most helpful for promoting food security in your community?

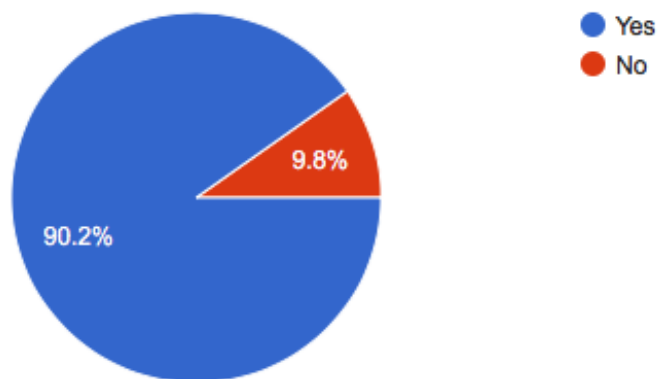
32 responses



Survey Question 12.

Do you currently reside in Riverdale Park?

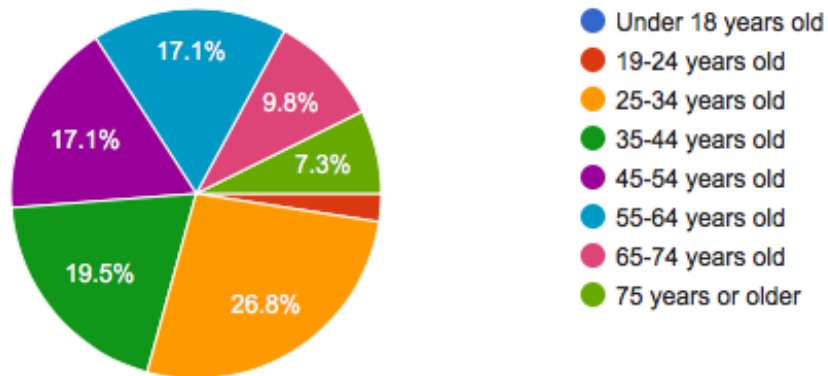
41 responses



Survey Question 13.

Please specify your age.

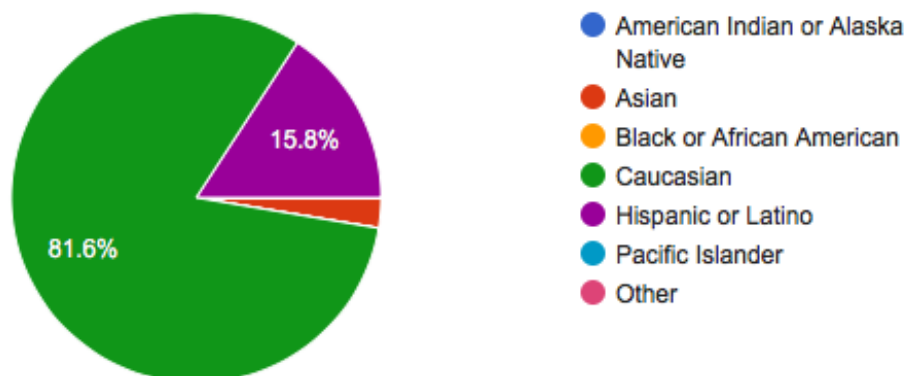
41 responses



Survey Question 14.

Please specify your ethnicity.

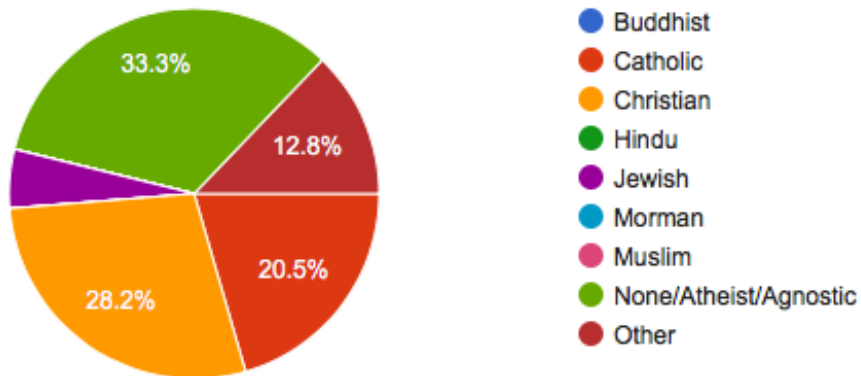
38 responses



Survey Question 15.

What is your religious identification?

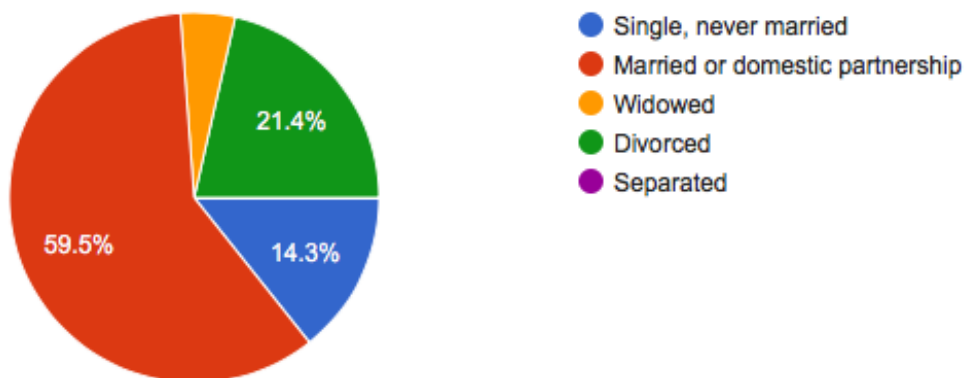
39 responses



Survey Question 16.

What is your marital status?

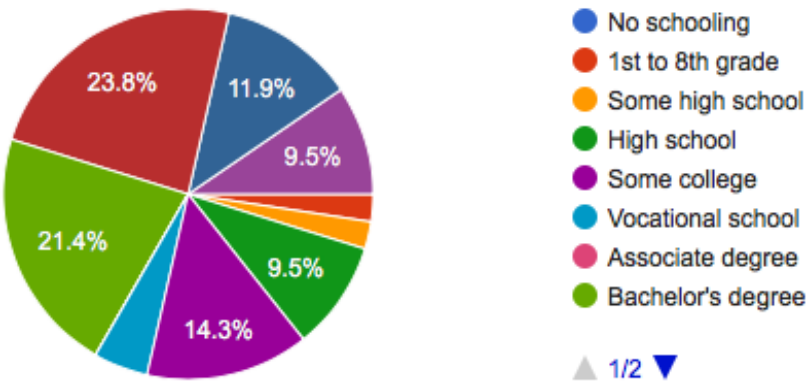
42 responses



Survey Question 17.

What is the highest degree or level of school you have completed?

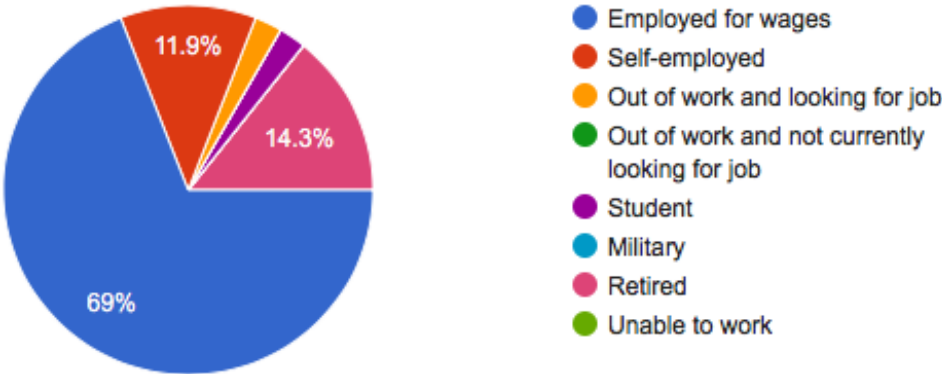
42 responses



Survey Question 18.

What is your current employment status?

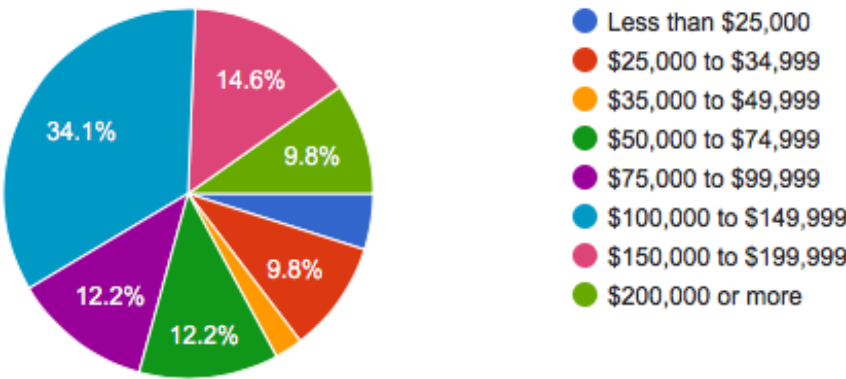
42 responses



Survey Question 19.

What was your total household income before taxes for 2017?

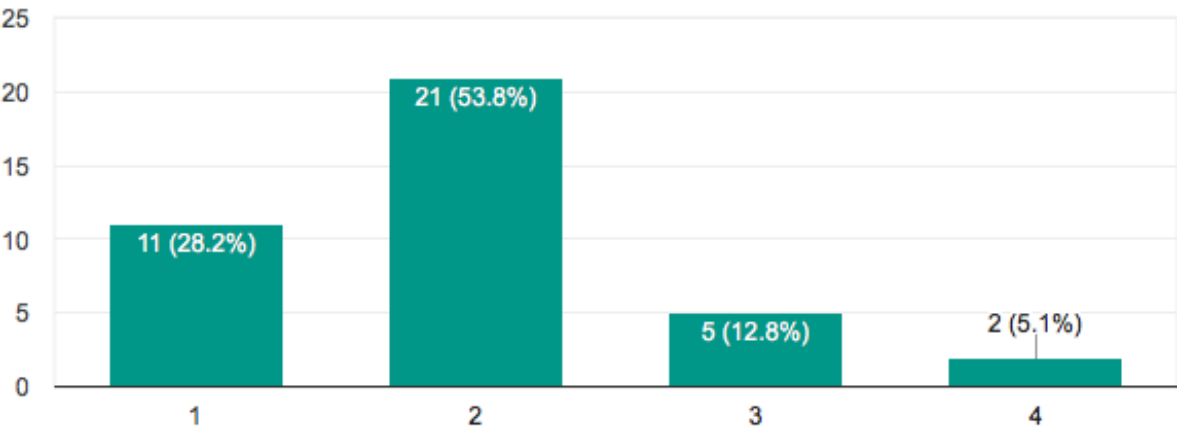
41 responses



Survey Question 20.

How many adults live in your home?

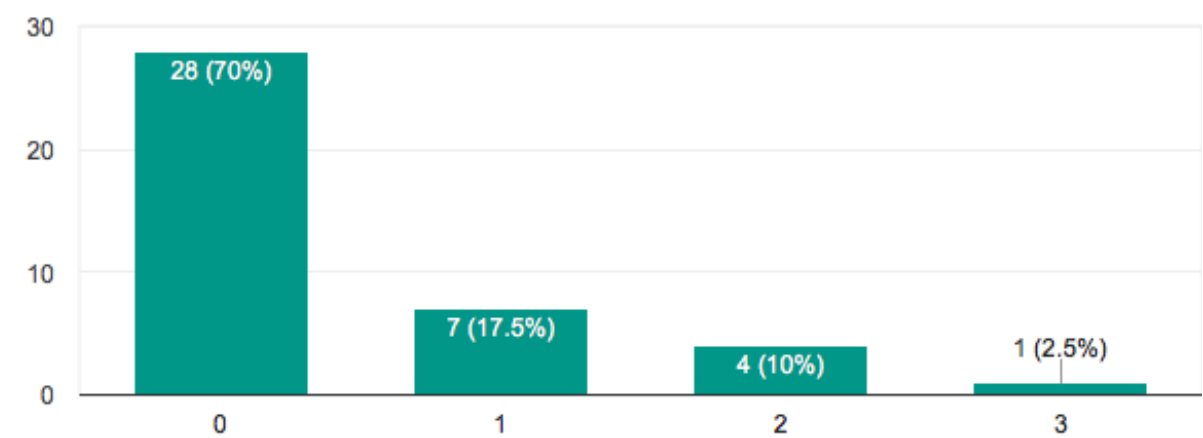
39 responses



Survey Question 21.

How many children live in your home?

40 responses



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