TECHNICAL PROJECT REPORT

Southeast Gainesville Community Food Project to Improve Food Access and Sovereignty

GRACE GROWS



Everyone deserves a chance to grow.

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One definition of food sovereignty

The Declaration of Nyéléni, the first global forum on food sovereignty in Mali in 2007, defined food sovereignty as, "the right of peoples to healthy and culturally-appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems."

About this document

This traditional-styled research report reflects the robust data collection, analysis and research findings gathered through the Grace Grows Community Food Planning Project. The intention of this report is to provide a deep technical dive into the methodology used— as well as the qualitative and quantitative findings which underlie the recommendations highlighted in the Summary Report. You can access the Summary Report here:

https://www.canva.com/design/DAFchSb-sA M/view

Dedication

This report is dedicated to LaVern Porter-Mitchell an elder, a dancer, and a mighty example of service, love, and so much more. She lived from April 18th, 1950 to December 14th, 2022.

"The first time I saw the LaVerne Porter dancers I was mesmerized. I wanted to be one of her dancers. She was an inspiration to me growing up. She was friendly, confident, classy, and sophisticated with a dash of spice on the side, and one of the first black women in a position of power that I had seen in person. She was always a role model for me. I never got the chance to join her dance troupe but was honored to work with such a powerhouse on The Community Food Project. She was very influential and her contributions were a big part of the outcomes and success of the project." -Latashia Mayze-Brimm (Grace Grows Community Food Project Coordinator)



Source: The Gainesville Sun, 2005. LaVern Porter-Mitchell rehearsal for The Fifth Avenue Arts Festival

Special Thanks

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Preface

The Grace Grows Community Food Planning Project (GGCFP) was a community-based participatory research project conducted during 2021 and 2022 in Gainesville, Florida. Grace Grows was the lead organization with research collaboration from faculty and students at the University of Florida. Funding for the project came from the USDA Community Food Project planning grant program. The idea for the project arose from meetings of the Food Systems Coalition of Greater Gainesville and evolved with guidance and leadership from members of the Southeast Gainesville community. For more information about the community-based approach to this project, please see the G.R.A.C.E. Community Engagement Toolkit.

A Community Advisory Board (CAB) of 15 primary stakeholders who live, work, or have family in Southeast Gainesville was particularly vital to this project. Board members included food producers, community leaders, educators, and people with experience with food assistance programs, nutrition, or foodways within the Southeast Gainesville community. These 15 individuals were selected from 40 nominations based on their lived experiences and commitment to community-driven solutions to community food access. Among the contributions of this board were 1) designing the survey instrument, 2) recruiting study participants based on their relationships and knowledge of the community, and 3) conducting surveys in a one-on-one interview format.

To academics and researchers:

These reports were written by people who have largely been steeped in the world of academia. We acknowledge that this in and of itself is problematic. For far too long, the University of Florida has benefitted from the generosity of the surrounding community of Gainesville without reciprocating that same level of benefit—in fact, often by being extractive or predatory. The structure of academia and its publish-or-perish imperatives leads even the most well-meaning of academics to produce work that centers ourselves without returning benefit to those who give generously of their time and expertise. While we cannot claim to have been perfect in our attempts to break this pattern, we have and still do strive to make this research community-based. We implore you to do the same.

In these reports, we have sought to be transparent about how we reached our conclusions so that others can both critique and build on them. If you choose to critique them, please do so in partnership with people who live, work, and/or have family in Southeast Gainesville. It is your responsibility to ensure that your critiques are directed at us—your fellow researchers—and not at the lived experiences that study participants have so generously shared. Likewise, if you choose to build on the findings, please also do this in partnership with these primary stakeholders. These partners would be able to steer your efforts toward research questions and insights that can be used as tools for advocacy to advance efforts to make the food system in Southeast Gainesville more equitable and just.

Grace Grows Community Food Planning Project Technical Report

Methodology

Brief Project Background

A Community Advisory Board (CAB) of 15 primary stakeholders who live, work, or have family in Southeast Gainesville was particularly vital to this project. Board members included food producers, community leaders, educators, and people with experience with food assistance programs, nutrition, or foodways within the Southeast Gainesville community. These 15 individuals were selected from 40 nominations based on their lived experiences and commitment to community-driven solutions to community food access. Among the contributions of this board were 1) designing the survey instrument, 2) recruiting study participants based on their relationships and knowledge of the community, and 3) conducting surveys in a one-on-one interview format.

Data Collection

Surveys

The design of the survey was a collaboration between the Community Advisory Board and the University of Florida-based research team. The team developed and tested the survey items with Community Advisory Board members as well as volunteer researchers during the summer of 2021. Each collaborator received Institutional Review Board (IRB) training for research with human subjects. See the Appendix for the full survey instrument.

Study population. The only eligibility criteria for completing the survey were 1) being 18 years of age or older, and 2) answering 'yes' to the question, "Do you live, work, or have a family member who lives in SE Gainesville?" This question was intended to ensure survey respondents were primary stakeholders—those directly impacted by the Southeast Gainesville food environment. The zip code distribution of the final sample shows that most of the survey respondents were residents of the Southeast Gainesville zip codes 32641 (77 percent) and 32601 (5 percent). The other zip codes included in the sample are shown below in Table 1.

Zip	Ν	%	Zip	Ν	%	Zip	Ν	%
32641	79	76.7	32609	3	2.9	32653	1	1.0

Table 1. Zip codes of survey respondents

32601	5	4.9	32640	2	1.9	32696	1	1.0
32608	3	2.9	32607	1	1.0	Missing	8	7.8

Sampling and recruitment. Recruitment for the survey involved two different strategies. Probability sampling was not feasible for this project; instead, purposive and convenience sampling were used. The CAB led the purposive sampling by generating lists of community members they knew and who they felt would be willing to contribute insights and experiences to the study. Participants recruited through purposive sampling had the option to complete the survey in-person or via zoom. Often, the CAB member who nominated the study participant led the interview-format survey, with note-taking assistance from another member of the research team.

The research team led the convenience sampling through conducting surveys door-to-door as well as on-site surveying and recruitment at locations such as an afterschool program pickup area and a food distribution queue. Specific Southeast Gainesville neighborhoods where teams of researchers went door-to-door included Lincoln Estates (8 surveys), Carver Gardens (11 surveys), Woodland Park (10 surveys), Eastwood Meadows (5 surveys), and Tiger Bay Apartments (2 surveys). Participants recruited through convenience sampling had the option of completing the survey in-person with an interviewer and note-taker or by visiting the web link to an online version of the survey via Qualtrics. Of the 103 surveys completed, the majority (86 percent) were completed with the help of an interviewer and/or note-taker, as opposed to independently online. Survey administration continued through mid-October 2021.

Sample characteristics. The majority of the final sample were women (73 percent), people identifying as Black or African American (79 percent), and people ages 50-79 (53 percent). Most had attained education beyond a high school diploma or GED (67 percent), and about a third (35 percent) had attained an Associate degree or higher. Respondents' households most commonly had 1 or 2 adults (74 percent) and no children (51 percent). The demographics of the full sample of 103 respondents are shown below in Table 2.

Comparison statistics were generated from the 2020 Census for zip code 32641 (in which over three-quarters of the survey respondents lived) to investigate the demographics of the sample compared to the general population in the area of focus. These comparisons should be interpreted with extreme caution for several reasons: 1) this study's geographic area of particular interest is smaller than the 32641 zip code as a whole, and thus the convenience sampling efforts were targeted to specific neighborhoods; 2) this study's definition of primary stakeholders included not only residents of Southeast Gainesville but also people who work and/or have family there; and 3) a few of the measures used on the survey are different than those asked on the

Census (for example, gender vs. sex). In other words, the study population and the population of 32641 are not equivalent. Keeping these considerations in mind, however, the Census comparison can provide a general idea of how the survey sample relates to residents in the general area. As shown in Table 2, the sample has more women, more people in their 60s, more highly educated people, more BIPOC people, and slightly smaller households than the general population living in 32641.

				2020 Census %
		Ν	%	Adults in 32641
Gender*	Woman	75	72.8	53.1
	Man	19	18.4	46.9
	Missing	9	8.7	-
Age	20-29	6	5.8	19.5
	30-39	16	15.5	17.7
	40-49	10	9.7	15.4
	50-59	14	13.6	15.0
	60-69	26	25.2	16.9
	70-79	15	14.6	8.2
	80+	4	3.9	4.0
	Missing	12	11.7	-
Highest	Less than high school graduate	8	7.8	16.6
education**	High school diploma or GED	19	18.4	36.6
	Some college (no degree)	29	28.2	19.7
	Trade/technical/ vocational	4	3.9	-
	training			
	Associate degree	5	4.9	12.0
	Bachelor's degree	18	17.5	10.6
	Master's degree	11	10.7	4 5
	Doctorate degree	2	1.9	4.5
	Missing	7	6.8	-
Race/	Black or African American	81	78.6	67.5
ethnicity***	White	8	7.8	32.5
	Latinx	4	3.9	4.2
	American Indian or Native	4	3.9	0.6
	American			
	Other	9	8.7	2.6
	Missing	8	7.8	-
Adults in	1	37	35.9	-
household	2	39	37.9	-
	3-4	18	17.5	-

Table 2. Demographics of survey respondents

	Missing	9	8.7	-
Children in	0	52	50.5	65.4
household	1	18	17.5	
	2-3	15	14.6	34.6
	4-5	7	6.8	
	Missing	11	10.7	-
Household	1	23	22.3	-
size	2	26	25.2	-
	3-4	27	26.3	-
	5+	14	13.7	-
	Missing	13	12.6	-
	MEAN		2.72	3.06 members
		me	mbers	

* Census reports sex, not gender; use for very general comparison only.

** Census numbers reported for ages 25+.

*** Categories are not treated as exclusive, so percentages add to greater than 100.

Focus Groups and Interviews

The research team conducted two sets of focus groups, two in February 2021 before the survey administration period, and one in November 2021 after the survey administration period. Topics discussed in the February focus groups included intergenerational changes in the role of food, food security, healthy eating, community gardening, and food assistance programs. The November focus group covered many of the same topics but focused more specifically on ideas and suggestions that arose in the survey responses as well as details on viable solutions to improving food access in the Southeast Gainesville community. Please see the Appendix for both full sets of questions.

Sampling for the focus groups was purposive, with members of the Project Advisory Board and Community Advisory Boards organizing and recruiting participants. All focus groups were held via Zoom, as the COVID-19 pandemic was still an active health concern. The February focus groups each had five participants, for a total of 10. For the November focus group, participants were recruited from the sample of survey respondents as the focus of these discussions was following up on ideas and solutions suggested in the survey. The November focus group had seven participants, two of whom had also participated in the February focus groups. In addition, one person from the community was interviewed in November 2021. In total, the focus groups and interview had 16 participants, at least half of whom also took the survey. All focus groups and the interview were recorded and transcribed verbatim.

Data Analysis

Database Cleaning and Construction

Text-entry questions. All survey data entry, including the interview-format sessions, was completed through Qualtrics, which helped reduce the possibility of transcription error (compared with an approach relying on typing codes into a spreadsheet, for instance). There were multiple choice- style questions as well as text entry. The text entry questions required considerable cleaning, including some of the demographic variables. The age variable had a few responses reported as ranges; these were recoded as missing. The only case with a 'prefer to self-describe' for gender was a man and woman who took the survey as a pair. I coded this response as missing. For the race/ethnicity question, only one person selected Asian as well as Native Hawaiian or other Pacific Islander. Therefore, this case was added to the 'Other' category and 'Asian' and 'Native Hawaiian or other Pacific Islander' were dropped from the variable list. For education, the 'other' responses could all be categorized as one of the options provided on the survey, so these answers were standardized. Examples included the following: 1) "Working on my Bachelors" → "Some college (no degree)"; 2) "Some high school and some college" \rightarrow "Some college (no degree)"; and 3) "Attends GED program" \rightarrow "Some high school."

The block of questions about grocery shopping also required considerable cleaning. For the names of the locations where respondents shopped most often, this included several steps. First, a few cases in which multiple locations were mentioned together were coded as missing, because multiple locations in the same field invalidated the order of mention as well as the follow-up questions about frequency and avoidance. For the quantitative dataset, responses that included more than just the name of the location were truncated. Examples are as follows: 1) "Publix on Main St. because it's on the borderline" \rightarrow "Publix"; 2) "Dollar General (NE 16th Street)" \rightarrow "Dollar General." All full answers were retained for the qualitative dataset. Finally, an 'Other' category was created for locations only listed once, and one farmers market mentioned only once was added to the 'farmers market' category. For the follow-up questions about frequency of shopping at the listed locations, any text-based responses were changed to be numeric. Ranges (such as 3-4 times) were averaged using the max and min provided. For responses reported as 'more than X,' the next integer was used. 'X or more' was changed to just 'X.' 'Daily' responses were recorded as '30.' Questions about avoidance were standardized to yes, no, or missing. Examples included the following: 1) "Not because it is too difficult, but sometimes too expensive" \rightarrow "Yes"; 2) "No, the city bus comes right here" \rightarrow "No"; 3) "Maybe" \rightarrow "Missing."

Missing data. Many of the multiple-choice questions included a "Don't know/prefer not to respond" answer choice. These answers were retained but coded as a special 'missing' value in SPSS. There were also some multiple-choice questions where missing values could be reclassified as 'N/A,' which were also coded as a special 'missing' category in SPSS. For instance, for difficulties meeting special dietary needs, missing values were recoded as 'N/A' if SpecialDiet = No. Similarly, missing data were recoded as N/A for the GardenChildren variable if Children = 0. This overrode some of the "I'm not sure" answers, which were treated as missing, as mentioned above. For Question #20, a select-all item about gardening activities, responses were coded as '1' for yes and missing as no. Cases where the previous three questions were also missing and no options were selected, were left as missing. All other missing values for Question #20 were recoded the missing values as '0' for no.

Quality control. After the data cleaning measures described above, each item was back-checked against the original data by comparing the SPSS frequencies against Excel pivot tables in the originally downloaded Qualtrics output. A few transcription errors were fixed, mostly dealing with the coding of missing values. SPSS output of descriptive statistics was also compared against Excel-generated mins, maxes, and means for scale variables. Finally, all outliers for scale variables were checked against the original, unformatted data output and revealed no errors.

Collapsed responses and composite measures. Many of the items were heavily skewed with response categories such as '0' or 'never' that were larger than all other categories combined. Binarized versions of most of the ordinal variables were created to make the positive category more robust and more appropriate for statistical tests such as chi-square and logistic regression. All original variables were retained. The education variable also had eight categories that respondents selected, so a second education variable was created that collapsed the scale into four. Similarly, age categories were collapsed into approximate quartiles. Please see Tables A1 and A2 in the Appendix for the full list and details of the collapsed variables.

Several composite measures were also created. For grocery shopping, responses to the top three grocery shopping locations questions were categorized as 'grocery,' 'superstore,' 'dollar store' or 'other.' Scales were then created indicating the use of stores in each category within the last month, accounting for all three locations and their respective frequencies. The three shopping frequency questions were combined into an ordinal variable indicating how many times each respondent shopped at their top three listed locations in the past month. A scale of shopping avoidance was also created by weighting the binary yes/no responses by the order of mention to give greater importance to the more salient locations. This scale is collapsed into an ordinal variable with four levels. A scale of food access challenges was created using the ordinal variables measuring 1) needing to ask for help getting groceries, 2) worrying about running out of food, and 3) being unable to afford to prepare a healthy meal. The binary items for gardening activities were used in an index of willingness to participate in gardening. And finally, the ordinal food access variables were used in indices of nongovernmental food assistance use and federal food assistance program use. Please see the Appendix for the process of constructing each composite measure.

Qualitative Analysis

MAXQDA 2022 software was used to code qualitative responses from the survey as well as the focus group and interview transcripts. The multi-stage coding process first involved assessing survey respondents' answers to the question, "What are your thoughts for how to improve access to healthy food in your community?" The categories that emerged from this preliminary analysis formed the basis for each topical report. This approach was chosen because it centers the solution areas and suggestions that emerged from the survey rather than an *a priori* organization of topics. The solution areas were as follows: access and availability (36 respondents), places to buy food (36 respondents), community engagement (28 respondents), transportation (23 respondents), community gardens (21 respondents), and education (20 respondents).

For each individual report, survey responses were coded in several rounds. First, each qualitative response pertaining to the topic area at hand was tagged to revisit for thematic coding. Examples of responses that were included in the thematic coding for each topic area are included in Table A8 in the Appendix. Once the subset of qualitative responses for the given topic area were identified, emergent themes were coded. Subsequently, the list of emergent codes was refined by adding subcodes to better develop disproportionately large emergent categories and/or combining smaller emergent categories (e.g., those mentioned only by several respondents). Next, the focus group and interview transcripts were coded, first by tagging comments pertaining to the topic at hand to revisit for thematic coding. For the subset of relevant comments, the coding structure finalized for the survey responses was applied. In cases where a relevant comment was not adequately captured within the existing coding structure, additional emergent codes were added for analysing the focus group and interview transcripts. For instance, the concept of *convenience* did not emerge as a major access/availability factor in the survey responses but did within focus group discussions. The reasoning behind coding the surveys first and then building upon that coding structure for the focus groups and interview was that the latter were intended to provide additional context and expand upon insights gleaned from the surveys. Final coding trees for each solution area are included in their respective topical reports.

Quantitative Analysis

IBM SPSS Statistics software was used for quantitative data analysis. Each topical report features selected focal variables that most pertained to the subject at hand. Each report includes descriptive statistics as well as correlations between these focal variables. The descriptive tables specify whether the correlation coefficients are phi, Cramer's V, gamma, or Spearman's rho. Pearson's r-square was not appropriate for the relationships of interest, which all include at least one categorical variable.

Findings from the qualitative analyses were used to form hypotheses for significance testing, using an alpha level of 0.05. When possible, the most granular versions of the variables were used. However, in many cases it was necessary to use collapsed versions of ordinal and interval-ratio variables due to small cell sizes and/or failure to meet all necessary assumptions for particular statistical functions. The accompanying topical reports explain the rationale behind the selection of each variable type.

Ordinary least squares linear modeling was not appropriate for hypothesis testing due to the nature of the dataset. Tests used instead included chi-square tests for independence, Mann-Whitney tests, loglinear modeling, and logistic regression. For binary and ordinal logistic regression, the Box-Tidwell transformation was used to check the assumption of linear relationships between the predictor variables and the log-odds. For logistic regression using multiple noncategorical predictors, collinearity diagnostics were checked using variance inflation factors. For ordinal logistic regression, the test of parallel lines was checked for the assumption of proportional odds.

Places to Buy Food

Survey Results

Focal variables

The survey asked respondents where they shopped for food most often, second most often, and third most often. For each location, the survey then asked 1) how many times the respondent shopped there in the last month; 2) what they liked about shopping there; 3) if they ever avoided shopping there because it was too difficult; and 4) if so, what made it too difficult. Respondents' likes and challenges are discussed in the qualitative results section below. The location name, frequency of shopping there, and whether or not the respondent ever avoided it are discussed in this section. Composite measures were formed for overall grocery shopping frequency, frequency of shopping at grocery, dollar, and superstores, and avoidance of any of the respondent's top three shopping locations. Please see the associated methods report for details on how these composite measures were constructed.

As shown below in Table 3, the three most-mentioned grocery shopping locations were Walmart (65 mentions), Publix (59 mentions), and Winn Dixie (54 mentions). Overall, about a quarter of respondents shopped for groceries at their top three locations once a week or less, a quarter shopped 1-2 times per week, a quarter shopped 2-3 times per week, and a quarter shopped three or more times per week in the last month. Grocery stores was the most-used type of store, with 88 percent of respondents reporting having shopped at grocery stores within the last month. Most respondents (60 percent) also shopped at superstores including Walmart or Sam's Club. A quarter of respondents reported shopping for groceries at dollar stores within the past month. About half of respondents (49 percent) reported having avoided shopping at one or more of their top three shopping locations because it was too difficult. There was a moderate correlation between the respondent's frequency of shopping at superstores and having avoided shopping at their top three locations (p=.003; G=.36). Respondents who shopped at superstores more frequently tended to have higher levels of avoidance of their top three shopping locations.

Туре	Store name	1 st	2 nd	3 rd	Total
		mentioned	mentioned	mentioned	
Grocery store	Publix	26	19	14	59
-	Winn Dixie	27	20	7	54
	Wards	1	11	6	18
	Aldi	3	1	0	4
	Whole Foods	2	2	0	4
	Save-A-Lot	0	1	3	4
	Grocery store	2	1	0	3
	Hitchcocks	0	2	0	2
	Trader Joes	0	0	2	2
	Fresh Market	0	1	0	1
	Eastern Market	0	0	1	1
Superstore	Walmart	31	21	13	65
	Sams Club	3	5	3	11
Dollar store	Dollar General	4	3	6	13
	Family Dollar	0	3	4	7
	Dollar store	0	0	5	5
	Dollar Tree	1	1	2	4
Other	Farmers market	1	1	1	3
	Walgreens	0	0	2	2
	Wawa	0	1	0	1
	General store	1	0	0	1
	Daily market	0	0	1	1
	Flea market	0	0	1	1
	Veg and fruit stand	0	0	1	1
	West Coast	0	0	1	1
	Seafood				

Table 3. Listed grocery shopping locations

Table 4. Grocery shopping frequency

How many times did you shop [at the location where you shopped for food most/second most/third most often] in the last month?	N	%
Once a week or less	25	24.3
1-2 times per week	26	25.2
2-3 times per week	24	23.3
3+ times per week	25	24.3
Missing	3	2.9

Ordinal	Ν	%	Binarized	Ν	%
None	11	10.7	No	11	10.7
Once a week or less	45	43.7	Yes	91	88.3
1-2 times per week	28	27.2			
2-3 times per week	11	10.7			
3+ times per week	7	6.8			
Missing	1	1.0	Missing	1	1.0

Table 5. Frequency of shopping at grocery stores

Table 6. Frequency of shopping at superstores

Ordinal	Ν	%	Binarized	Ν	%
None	39	37.9	No	39	37.9
Once a week or less	44	42.7	Yes	62	60.2
1-2 times per week	10	9.7			
2-3 times per week	3	2.9			
3+ times per week	5	4.9			
Missing	2	1.9	Missing	2	1.9

 Table 7. Frequency of shopping at dollar stores

Ordinal	Ν	%	Binarized	Ν	%
None	76	73.8	No	76	73.8
Once a week or less	13	12.6	Yes	26	25.2
1-2 times per week	10	9.7			
2-3 times per week	0	0.0			
3+ times per week	3	2.9			
Missing	1	1.0	Missing	1	1.0

Table 8. Avoidance of shopping location scale

Ordinal	Ν	%	Binarized	N	%
No avoidance	51	49.5	No	51	49.5
Low avoidance	16	15.5	Yes	50	48.5
Mid avoidance	19	18.4			
High avoidance	15	14.6			
Missing	2	1.9	Missing	2	1.9

		Superstores	Dollar stores	Avoidance
Frequency of	Gamma	269	214	216
shopping at	Significance	.051	.225	.079
grocery stores	Ν	101	102	101
Frequency of	Gamma		090	.364**
shopping at	Significance		.633	.003
superstores	Ν		101	100
Frequency of	Gamma			.058
shopping at	Significance			.745
dollar stores	Ν			101
Grocery	Gamma			.068
shopping	Significance			.581
frequency	Ν			99

Table 9. Correlations between focal variables

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Shopping experiences at top three grocery shopping locations

Of the three most-often mentioned grocery shopping locations, Walmart was the store that the most respondents had avoided because shopping there was too difficult. Of the 65 respondents who reported shopping at Walmart, 35 had avoided it. A chi-square test using the subset of responses that pertained to the top three stores found a significant relationship between the location and whether the respondent avoided it (p<.001; V=.364). A post-hoc test using the Bonferroni correction found that those who shopped at Walmart were significantly more likely to have avoided it (p<.001), and those who shopped at Winn Dixie were significantly less likely to have avoided it (p<.001).

		Wal	mart	Pu	blix	Winn Dixie	
		Ν	%	Ν	%	Ν	%
Avoided	No	29	45.3	39	70.9	45	86.5
	Yes	35	54.7	16	29.1	7	13.5
Frequency	Once a week or	44	70.9	43	74.1	43	79.6
	less 1-2 times per week	11	17.7	11	19.0	9	16.7

Table 10. Shopping experiences at top three grocery shopping locations

2-3 times per wee	k 3	4.8	3	5.2	1	1.9
3+ times per week	4	6.5	1	1.7	1	1.9

Demographics of respondents according to grocery shopping frequency

Respondents with children in their households shopped significantly more frequently than those with no children in their households (p=.004; V=.388).

Table 11. Demographics of respondents according to grocery shopping frequency

		On wee le	ce a ek or ess	1 tin p we	-2 nes er eek	2-3 t per v	times week	3+ pei	times [•] week	P chi-s	earson square test
		Ν	%	Ν	%	Ν	%	Ν	%	Sig.	Corr.
Gender	Woma	19	86.	18	81.8	19	86.	17	68.0	Cell si	zes too
	n		4				4			small	
	Man	3	13.	4	18.2	3	13.	8	32.0		
			6				6				
Age	20-39	5	23.	8	34.8	3	14.	5	21.7	Cell si	zes too
quartile			8				3			small	
	40-59	5	23.	6	26.1	5	23.	8	34.8		
			8				8	_			
	60-69	6	28.	3	13.0	9	42.	7	30.4		
		_	6				9				
	70+	5	23.	6	26.1	4	19.	3	13.0		
		_	8			_	0				
Education	HS or	5	22.	8	34.8	5	21.	6	24.0	p=.3	G=.094
level	less		.7	_	~~ <i>4</i>		./	4.0	40.0	61	
	Beyon	11	50.	./	30.4	5	21.	10	40.0		
			0	_	24.0	12	7		24.0		
	Colleg	6	27.	8	34.8	13	56. Г	9	36.0		
	e		3				5				
	luegree										
Paco/	T Black	10	86	10	86 /	10	82	22	88.0	Collei	
	or	19	/	17	00.4	1,1	6	22	00.0	small	265 100
etimicity	African		4				0			Small	

	Americ an ^a										
Adults in	1	9	42.	8	34.8	11	47.	8	33.3	Cell siz	es too
household			9				8			small	
	2	6	28.	8	34.8	10	43.	13	54.2		
			6				5				
	3-4	6	28.	7	30.4	2	8.7	3	12.5		
			6								
Children	No	16	80.	8	34.8	17	73.	10	43.5	p=.0	<i>V</i> =.388*
in			0				9			04	*
household	Yes	4	20.	15	65.2	6	26.	13	56.5		
			0				1				

^b Reported with Yates continuity correction

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Demographics of respondents who shopped at grocery stores

There were no significant patterns in the demographics of those who shopped at grocery stores.

Table 12.	Demographics o	f respondents	who sho	pped at	grocery stores

		Did no at gi sto	Did not shop at grocery stores		ped at y stores	Pearson chi-square test	
		Ν	%	Ν	%	Sig.	Corr.
Condor	Woman	8	80.0	66	79.5	p=1.000	<i>(n</i> - 004
Gender	Man	2	20.0	17	20.5	b	$\psi = .004$
	20-39	2	20.0	20	25.0	Coll cizos t	oo cmall
Age	40-59	3	30.0	21	26.3	to report re	
quartile	60-69	3	30.0	22	27.5	rolighty	suits
	70+	2	20.0	17	21.3	Тепарту	
	HS or less	5	50.0	21	24.7	Coll cizoc t	oo cmall
Education	Beyond HS	3	30.0	30	35.3	to report re	
level	College degree +	2	20.0	34	40.0	reliably	50115

Race/ ethnicity	Black or African American ª	10	100.0	71	84.5	p=.392	φ=13 8
Adultain	1	4	44.4	32	38.1	Cell sizes to	oo small
Auuits III	2	4	44.4	35	41.7	to report re	sults
nousenotu	3-4	1	11.1	17	20.2	reliably	
Children in	No	4	40.0	48	59.3	n = 111	<i>φ</i> =12
household	Yes	6	60.0	33	40.7	<i>ρ</i> =.411	2

^b Reported with Yates continuity correction

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Demographics of respondents who shopped at superstores

There were no significant patterns in the demographics of those who shopped at superstores.

 Table 13. Demographics of respondents who shopped at superstores

			Did not shop at superstores		ped at rstores	Pearson chi-square test	
		Ν	%	Ν	%	Sig.	Corr.
Condor	Woman	27	77.1	47	82.5	n- 522	(n= 065
Gender	Man	8	22.9	10	17.5	p=.555	φ=065
	20-39	10	30.3	11	19.6		
Age	40-59	8	24.2	16	28.6	n- 525	1/- 150
quartile	60-69	7	21.2	18	32.1	p=.525	V150
	70+	8	24.2	11	19.6		
	HS or less	5	14.3	20	33.9		
Education	Beyond HS	14	40.0	19	32.2		
Euucation	College degree	10	28.6	13	22.0	p=.223	V=.216
level	Advanced	6	171	7	11 0		
	degree	0	1/.1	/	11.9		
Race/	Black or					n = 108	
ethnicity	African	27	77.1	53	91.4	b	φ=.199
ethnicity	American ^a						

Adulta in	1	16	47.1	20	34.5		
Adults In	2	12	35.3	26	44.8	p=.487	<i>V</i> =.125
nousenota	3-4	6	17.6	12	20.7		
Children	0	24	70.6	28	50.0		
in	1	3	8.8	13	23.2	p=.114	<i>V</i> =.220
household	2-5	7	20.6	15	26.8		

^b Reported with Yates continuity correction

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Demographics of respondents who shopped at dollar stores

The only demographic variable statistically significantly related to shopping at dollar stores was identifying as American Indian or Native American (p=.02; φ =.30). However, this finding should be interpreted with extreme caution because there were so few study participants who identified as American Indian or Native American.

		Did not shop at dollar stores		Shopped at dollar stores		Pearson chi-square test	
		Ν	%	Ν	%	Sig.	Corr.
Condor	Woman	54	79.4	20	80.0	n- 050	<i>(</i> 0- 006
Gender	Man	14	20.6	5	20.0	<i>p</i> =.950	$\psi =008$
	20-39	18	26.9	4	17.4		
Age	40-59	17	25.4	7	30.4	n- 672	1/- 121
quartile	60-69	17	25.4	8	34.8	p = .075	V131
	70+	15	22.4	4	17.4		
	HS or less	18	25.7	8	32.0		
	Beyond HS	23	32.9	10	40.0		
Education level	College degree	17	24.3	6	24.0	p=.413	V=.174
	Advanced degree	12	17.1	1	4.0		
Race/ ethnicity	Black or African American ª	57	82.6	24	96.0	p=.186	φ=.171

 Table 14. Demographics of respondents who shopped at dollar stores

Adults in household	1	27	39.7	9	36.0		
	2	30	44.1	9	36.0	p=.433	V=.134
	3-4	11	16.2	7	28.0		
Children in	0	40	58.8	12	52.2		
	1	11	16.2	6	26.1	p=.573	<i>V</i> =.111
nousenotu	2-5	17	25.0	5	21.7		

^b Reported with Yates continuity correction

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Demographics of respondents who avoided any of their top three shopping locations

There were no significant patterns in the demographics of respondents who had avoided any of their top three shopping locations.

Table 15. Demographics of respondents who avoided any of their top three shopping locations

		Did not avoid		Avoided		Pearson chi-square test	
		N	%	Ν	%	Sig.	Corr.
Condor	Woman	36	75.0	37	84.1	n- 202	(0- 110
Gender	Man	12	25.0	7	15.9	p=.282	ψ =112
	20-39	11	23.9	11	25.6		
Age	40-59	10	21.7	13	30.2	n- 40F	1/- 101
quartile	60-69	12	26.1	13	30.2	p=.405	V=.IOI
	70+	13	28.3	6	14.0		
	HS or less	14	28.6	12	26.7		
	Beyond HS	18	36.7	14	31.1		
Education level	College degree	11	22.4	12	26.7	p=.895	<i>V</i> =.080
	Advanced degree	6	12.2	7	15.6		
Race/ ethnicity	Black or African American ª	44	89.8	36	81.8	p=.268	φ=115

Adults in household	1	18	37.5	17	38.6		
	2	20	41.7	19	43.2	p=.950	<i>V</i> =.033
	3-4	10	20.8	8	18.2		
Children in	0	30	63.8	22	51.2		
	1	7	14.9	10	23.3	p=.442	<i>V</i> =.135
nousenotu	2-5	10	21.3	11	25.6		

^b Reported with Yates continuity correction

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Qualitative results

What respondents liked about their top shopping locations

Selection. About three-quarters of respondents (75) reported liking at least one aspect of the selections of products available at one of their top three shopping locations. For 50 respondents, there were specific offerings that they sought out, especially produce (25 respondents) and meats (16 respondents). Quality was important to 39 respondents, especially freshness. 22 respondents liked having a variety of options available. Other characteristics respondents liked about their top stores' selections were that they stocked what they needed (12 respondents), offered items in bulk (11 respondents), and offered local products (5 respondents).

Convenience. Most respondents (73) also valued convenience. For 32 people, close proximity to home or another important location was a benefit. 19 people liked being able to one-stop-shop at some stores and get not only food but other items such as clothing at the same time. Several respondents also liked being able to get in and out quickly (7 respondents) or order delivery or curbside pickup (3 respondents).

Prices. About half of respondents (50) liked the pricing at one or more of their top three shopping locations. 38 people mentioned 'prices' specifically, and 22 people particularly liked deals and bargains such as buy one, get one free.

Store environment. Aspects of the store environment were important to 41 respondents. In particular, some respondents reported positive experiences with customer service or staff (20 respondents) as well as cleanliness (16 respondents). For three respondents, being familiar with a store was helpful for finding what they needed.

What respondents found difficult about their top shopping locations

Store environment. The most commonly mentioned set of challenges had to do with the physical and/or social environment of the store, with 32 respondents listing issues in this category. Most often, crowds and/or long lines made shopping difficult (14 respondents) or the staffing and customer service were unsatisfactory (10 respondents). Other issues included lack of cleanliness, disorganization, and the size or layout of the store.

Transportation. Transportation was a challenge for 17 respondents. This category included not having access to a vehicle, the store being too far away, traffic, and difficulties with parking.

Other challenges. Other challenges that at least three respondents mentioned including costs (9 respondents), the store not stocking what they needed (6 respondents), time (4 respondents), and the COVID-19 pandemic (4 respondents).

Experiences with Walmart

A special analysis of what respondents said about Walmart was conducted because it was the most-used store among survey respondents. Four respondents made general comments suggesting that while Walmart does serve some needs in the community, this store alone is not sufficient for providing healthy food access on the east side of town.

Likes. Convenience was the most-mentioned factor that respondents liked about shopping at Walmart (35 respondents). In particular, respondents liked its proximity (14 respondents) and the fact that they could use it as a one-stop shop (11 respondents). The second-most commonly mentioned factor was the selection (22 respondents), with 9 respondents seeking out specific items, 7 being able to find what they needed, and 6 appreciating the variety of options. Finally, 15 respondents liked the pricing and/or bargains at Walmart.

Challenges. The store environment was what respondents most commonly found challenging about shopping at Walmart (22 respondents). Nine respondents reported crowds and or long lines, and 8 reported issues with customer service. Less commonly, respondents experienced issues with transportation and/or parking (7 respondents) and the selection of products (5 respondents). Something that several respondents highlighted was that the check-out counters were understaffed, leading to long lines

and forcing customers to use self-checkout, where one respondent had been unable to pay with their WIC vouchers.

What respondents would like to see in Southeast Gainesville

When discussing resources they would like to see in Southeast Gainesville, especially in the context of improving food access in their community, respondents most frequently mentioned grocery stores (29 respondents) and farmers markets (13 respondents). Several respondents mentioned putting a grocery store in the lot where a Food Lion used to be located. One survey respondent shared:

> There is not a full-service grocery store in East Gainesville. There are small stores like Family Dollar and Dollar General, but the closest full-service grocery store is Super Walmart on Waldo Road, which is difficult with public transportation. We need another grocery store in East Gainesville. Dollar General can only give you snack foods and nonperishables. It would help with workforce, economy, local farmers. (P009)

Several respondents who mentioned farmers markets specified that they should be closer to the east side and/or open more frequently to better accommodate people's varied schedules. Other suggestions included healthy restaurants (5 respondents), produce markets (4 respondents), and farm stands (3 respondents) as well as other kinds of retail models that were mentioned less frequently. Nine respondents discussed ways they could contribute to improving the resources available for buying food in Southeast Gainesville. Their suggestions included joining local committee meetings, purchasing food from a community garden, helping to establish and/or run a grocery store or produce market, contributing tax dollars, and communicating with neighbors to raise support or funds for initiatives.

Focus Group and Interview Results

Grocery shopping experiences. Four participants shared things they liked about shopping at certain stores. One person shared, "I grew up shopping at Winn Dixie, so I'm not even a big fan of going to, say, Publix, because that's just my happy place." Another listed Ward's as their only place to get decent meat and fruit. A third described shopping at Whole Foods for their large selection of vegan foods. And a fourth participant spoke about an app they liked, called "Bobby Approved." Through partnerships with stores like Walmart, Target, Publix, Costco, and Dollar Tree, the app guides shoppers toward higher-quality ingredients, and this participant found it helpful for finding items that were both healthy and affordable.

Nine participants spoke about challenges that they or others had faced around shopping for groceries. The main challenge they talked about was the fact that very few stores and restaurants on the east side currently offer healthy options. Another issue was that the cost burden for healthy foods was high, especially for people without convenient transportation to grocery stores where their dollars stretched further, as opposed to at dollar stores and convenience stores. Another issue that a few participants raised was that resources like farmers' markets, farm stands, and u-pick were not adequately advertised and were not well-known even among long-time residents of Southeast Gainesville.

What participants would like to see in Southeast Gainesville. Eight participants shared suggestions for things they would like to see in Southeast Gainesville. Having more grocery and dining options to choose from—especially those offering choices that were affordable, healthy, and responsive to the desires of the community—was a common theme. The interview participant encouraged "choosing to develop the area a little bit more – not gentrify it – but to have places where people will go eat." Doing so, this participant went on to explain, will require investors to acknowledge that the area is worthy of putting money into. Another participant in one of the focus groups gave some additional background on this struggle:

My suggestion would be to get a grocery store in these neighborhoods. Period. And I really feel strongly about this [...]. I know, a lot of times we hear the City and the County: "Don't nobody want to put a grocery store over there. They don't want to do it. They don't want to invest." Look. The City and the County do a lot of things with private funds, okay? So, they do what they gotta do to get what needs to be done to be beneficial for them. So I feel like they can do what they need to do to get a grocery store in these areas. I think it would solve a lot of problems. [...] I got interviewed one time by a University of Florida student, and we were talking about food insecurity and gardens, and she told me, "Well, I talked to a couple of people at the City Commission/County Commission meeting, and they said the reason why they don't have grocery stores out east or push for it is because they don't even know if the people out east can sustain those grocery stores financially." Well, what do they think we buy food with? Rocks? We buy food with money. We go to the store with money, and we spend. So the people out east have to take their money to the west side—they're buying food! That's what they're doing. They're at the grocery store with their money, buying food. And there's a lot of people on that side of town, so that's a lot of money that's not going back

into the neighborhoods that need those type of things. They're going into other neighborhoods. (FG1.1)

In particular, several participants emphasized that having a diversity of stores, not only grocery chains but also smaller neighborhood stores, would be important. A couple participants added that farmers markets should also be included in that diversity. If we look to the past, this picture of the future is far from impossible for Southeast Gainesville, as one participant shared:

I recall—I grew up in Southeast Gainesville—that back in the day there were also, in some neighborhoods, stores. Corner stores, but IGAs, like smaller grocery stores. Like North Lincoln Heights, there was a store there, Mr. Straughter's store diagonally from the Cotton Club, there was an IGA. There were more of those throughout the community, and now you don't really see that. I just thought about us having more accessibility, to an extent, because we had those—maybe that's because some of our local people decided to open up their own stores because they saw the need. (FG1.4)

Access and Availability

Survey Results

Focal variables

The quantitative sections of this report focus on seven variables, shown in Tables 16-22 below: worrying about running out of food, being unable to afford to prepare a healthy meal, food access challenge scale, experiencing issues with refrigeration or storage, self-rated healthiness of diet, special dietary needs in household, and difficulty meeting special dietary needs.

About a third of respondents (38 percent) reported ever worrying about running out of food during a typical year. Slightly less than half of respondents (46 percent) had experienced being unable to afford to prepare a healthy meal during a typical year. The food access challenge scale is a composite measure constructed from both of these variables as well as needing to ask for help getting groceries. More than half of respondents (60 percent) had experienced at least one of these three challenges. The associated methods report includes details on how the scale was constructed. About a quarter of respondents (23 percent) had experienced issues with refrigeration or food storage. Most respondents (59 percent) reported that they 'mostly' or 'only' ate healthy food. Thirty-eight respondents had special dietary needs in their households, and 15 of those respondents had experienced difficulty meeting those needs within the past month.

Table 23 below shows the correlations between the six focal variables. The correlation between worrying about running out of food and being unable to afford to prepare a healthy meal was strong (p<.001; G=.64). Worrying about running out of food was also moderately correlated with experiencing food storage issues (p=.02; G=.37). An ordinal logistic regression was run using worrying about running out of food as an outcome variable and both being unable to afford to prepare a healthy meal and experiencing food storage issues as predictors. The model violated the assumption of proportional odds, so the binary version of worrying about running out was used instead in a binary logistic regression. This model was a significantly improved fit of the data over a model using no predictors (p<.001; Nagelkerke R²=.41). In this model, being unable to afford to prepare a healthy meal was a significant predictor, while experiencing storage issues was not. This suggests that economic factors likely explain some of the correlation between storage issues and worrying about running out of food.

In addition, being unable to afford to prepare a healthy meal was moderately correlated with self-rated healthiness of diet (p=.03; G=.31). Being unable to afford to prepare a healthy meal was not, however, a significant predictor of self-rated healthiness of diet in an ordinal logistic regression. The food access challenge scale was moderately correlated with difficulty meeting special dietary needs (p=.02; p=.40) and weakly correlated with self-rated healthiness of diet (p=.03; p=-.23). The latter relationship is explored further in the hypothesis testing section.

In a typical year (prior to COVID-19), how often did you worry that your household would run out of food?	N	%	Binarized	N	%
Never	58	56.3	No	58	56.3
Occasionally	16	15.5	Yes	39	37.9
Sometimes	14	13.6			
Often	9	8.7			
Don't know/prefer not to respond	3	2.9	Missing	6	5.8
Missing	3	2.9			

Table 16. Worrying about running out of food

Table 17. Being unable to afford to prepare a healthy meal

In a typical year (prior to COVID-19), how often was there a time that you could not afford to prepare a healthy meal?	N	%	Binarized	Ν	%
Never	52	50.5	No	52	50.5
Occasionally	17	16.5	Yes	47	45.6
Sometimes	23	22.3			
Often	7	6.8			
Don't know/prefer not to respond	2	1.9	Missing	4	3.9
Missing	2	1.9			

Table 18. Food access challenge scale

Composite measure constructed from worrying about running out of food, being unable to afford to prepare a healthy meal, and needing to ask for help getting groceries	N	%	Binarized	Ν	%
Quartile 1	32	31.1	No	32	31.1
Quartile 2	18	17.5	Yes	62	60.2
Quartile 3	17	16.5			
Quartile 4	27	26.2			
Missing	9	8.7	Missing	9	8.7

Table 19. Experiencing issues with refrigeration or food storage

How often do you have issues with refrigeration or with storing food?	N	%	Binarized	N	%
Never	76	73.8	No	76	73.8
Occasionally	12	11.7	Yes	24	23.3
Sometimes	8	7.8			
Frequently	4	3.9			
Missing	3	2.9	Missing	3	2.9

Table 20. Self-rated healthiness of diet

Based on your description of 'healthy food,' how healthy or not healthy is your diet?	N	%	Binarized	N	%
I never eat healthy food.	2	1.9	Not	37	35.9
I occasionally eat healthy food.	10	9.7	healthy		
I sometimes eat healthy food.	25	24.3			
I mostly eat healthy food.	56	54.4	Healthy	61	59.2
I only eat healthy food.	5	4.9			
Don't know/prefer not to respond	3	2.9	Missing	5	4.9
Missing	2	1.9			

	Ν	%
No	60	58. 3
Yes	38	36. 9
Don't know/prefer not to respond	2	1.9
Missing	3	2.9

Table 21. Special dietary needs in respondent's household

Table 22. Difficulty meeting special dietary needs

In the past month, how often did you have difficulty with buying or preparing foods that fit into your household's special dietary needs?	N	%	Binarized	N	%
Never	20	19.4	No	20	19.4
Occasionally	3	2.9	Yes	15	14.6
Sometimes	10	9.7			
Often	2	1.9			
Don't know/prefer not to respond	1	1.0	Missing	68	66.0
Not applicable	60	58.3			
Missing	7	6.8			

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		Food access challenges	Worrying about running out	Being unable to afford	Storage issues	Self-rated diet healthine ss
Special	Cramer's V	.375	.263	.124	.157	.294
dietary needs	Significance	.113	.087	.690	.490	.081
	Ν	92	95	96	98	96
Difficulty	Gamma	.403* ª	.317	.386	.033	.368
meeting	Significance	.016	.173	.120	.913	.271
special dietary needs	Ν	35	35	35	35	35
Worrying	Gamma			.636***	.372*	200
about running	Significance			<.001	.016	.189
out of food	Ν			95	96	95
Being unable	Gamma				.253	314*
to afford a	Significance				.142	.025
healthy meal	Ν				98	96
Food access challenge	Spearman's rho				.141	225*
scale	Significance				.176	.031
	Ν				93	92
Issues with	Gamma					.179
refrigeration	Significance					.322
or storage	Ν					97

Table 23. Correlation matrix of focal variables

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

^a Spearman's rho reported instead of Gamma

Demographics of respondents who worried about running out of food

The demographic factors significantly related to having ever worried about running out of food included approximate age quartile (p=.04; V=.31), education level (p=.02; V=.34), and children in household (p=.04; V=.27). An ordinal logistic regression using all three demographic variables as predictors was a significantly improved fit of the data over a model with no predictors (p=.003; Nagelkerke R²=.224). In this model, having the lowest level of education (p=.02) and a younger age (p=.01) were significant predictors, while the number of children in the household was not. Therefore, the

youngest respondents with the lowest levels of education were the most likely to worry about running out of food.

		Did exper	not ience	Experienced		Pearson chi-square test	
		Ν	%	Ν	%	Sig.	Corr.
Condor	Woman	46	82.1	27	79.4	n- 740	<i>(</i> 24
Genuel	Man	10	17.9	7	20.6	μ=.748	φ=.034
	20-39	8	15.1	14	41.2		
Age	40-59	17	32.1	6	17.6	n= 042	1/- 207*
quartile	60-69	15	28.3	9	26.5	p=.042	v=.507
	70+	13	24.5	5	14.7		
	HS or less	9	16.1	16	44.4		
	Beyond HS	20	35.7	11	30.6		
Education level	College degree	16	28.6	7	19.4	p=.015	<i>V</i> =.337*
	Advanced degree	11	19.6	2	5.6		
Race/ ethnicity	Black or African American ^a	49	87.5	30	85.7	<i>р</i> =1.000	<i>φ</i> =026
Adulta in	1	21	38.2	13	37.1		
household	2	26	47.3	13	37.1	p=.382	V=.146
	3-4	8	14.5	9	25.7		
Childron in	0	34	65.4	15	41.7		
bousebold	1	6	11.5	11	30.6	<i>p</i> =.042	<i>V</i> =.268*
nousenold	2-5	12	23.1	10	27.8		

Table 24. Demographics of respondents who worried about running out of food

^a Other race/ethnicity categories are not included because cell sizes were too small

^b Reported with Yates continuity correction

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Demographics of respondents who had been unable to afford to prepare a healthy meal

The demographic factors significantly related to being unable to afford to prepare a healthy meal were education level and children in the household. An ordinal logistic

regression using both variables as predictors was not possible because it violated the assumption of proportional odds. A binary logistic regression was a significantly improved fit of the data over a model using no predictors (p=.003; Nagelkerke R²=.221). The only significant predictor in this model was the number of children in the household (p=.01). When controlling for education level, respondents with more children in their households were more likely to report having ever been unable to afford to prepare a healthy meal during a typical year.

		Did not experience		Experienced		Pearson chi-square test	
		Ν	%	Ν	%	Sig.	Corr.
Gender	Woman	37	75.5	37	86.0	n = 204	<i>(</i>)- 122
	Man	12	24.5	6	14.0	<i>μ</i> =.204	$\psi =133$
	20-39	6	12.5	15	35.7		<i>V</i> =.281
Age	40-59	14	29.2	10	23.8	n = 0.60	
quartile	60-69	17	35.4	9	21.4	p = .009	
	70+	11	22.9	8	19.0		
Education level	HS or less	12	24.0	14	31.8		
	Beyond HS	13	26.0	20	45.5		
	College degree	17	34.0	5	11.4	p=.036	V=.301*
	Advanced degree	8	16.0	5	11.4		
Race/ ethnicity	Black or African American ª	42	84.0	37	86.0	p=.783	<i>φ</i> =.029
Adults in household	1	19	38.8	18	41.9		
	2	22	44.9	16	37.2	p=.724	<i>V</i> =.084
	3-4	8	16.3	9	20.9		
Children in household	0	34	73.9	17	38.6		
	1	7	15.2	11	25.0	<i>p</i> =.002	<i>V</i> =.369**
	2-5	5	10.9	16	36.4		

Table 25. Demographics of respondents who had been unable to afford to prepare a healthy meal

^a Other race/ethnicity categories are not included because cell sizes were too small

^b Reported with Yates continuity correction

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Demographics of respondents who experienced food access challenges

Demographic factors significantly related to having experienced worrying about running out of food, being unable to afford to prepare a healthy meal, and/or needing to ask for help getting groceries were gender and children in the household. Age quartile was on the borderline. An ordinal logistic regression using all three variables as predictors and quartiles of the food access scale was a significantly improved fit of the data over a model using no predictors (p<.001; Nagelkerke R²=.23). In this model, age (p=.02) and gender (p=.045) were significant predictors, but number of children was not. Food access challenges decreased with age and were higher among women than among men.

	Did not use		Used		Pearson chi-square test		
		N	%	Ν	%	Sig.	Corr.
Gender	Woman Man	21 9	70.0 30.0	51 6	89.5 10.5	p=.022	φ=245*
Age quartile	20-39 40-59 60-69 70+	2 10 10 7	6.9 34.5 34.5 24.1	18 13 14 11	32.1 23.2 25.0 19.6	p=.076	V=.284
Education level	HS or less Beyond HS College degree Advanced degree	4 11 9 6	13.3 36.7 30.0 20.0	19 20 13 7	32.2 33.9 22.0 11.9	p=.241	V=.217
Race/ ethnicity	Black or African American ª	25	83.3	51	87.9	<i>р</i> =.789	<i>φ</i> =.064
Adults in household	1 2 3-4	11 14 4	37.9 48.3 13.8	23 23 12	39.7 39.7 20.7	p=.653	V=.099
Children in household	0 1 2-5	20 2 4	76.9 7.7 15.4	28 14 17	47.5 23.7 28.8	<i>p</i> =.038	V=.278*

Table 26. Demographics of respondents who experienced food access challenges

^a Other race/ethnicity categories are not included because cell sizes were too small

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Demographics of respondents who experienced issues with refrigeration or food storage

There were no demographic factors significantly related to experiencing issues with refrigeration or food storage.

Table 27. Demographics of respondents who experienced issues with refrigeration or food storage

-		Did not experience		Experienced		Pearson chi-square test	
		Ν	%	Ν	%	Sig.	Corr.
Gender	Woman	58	79.5	17	81.0	<i>p</i> =1.000	<i>(</i>)- 016
	Man	15	20.5	4	19.0	b	ψ 010
	20-39	18	24.3	4	23.5	Cell sizes too small to report results reliably	
Age	40-59	19	25.7	5	29.4		
quartile	60-69	21	28.4	5	29.4		
	70+	16	21.6	3	17.6		
	HS or less	22	29.7	5	22.7		
Education	Beyond HS	25	33.8	8	36.4		
level	College degree	16	21.6	7	31.8	<i>p</i> =.686	<i>V</i> =.124
	Advanced degree	11	14.9	2	9.1		
Race/ ethnicity	Black or						
	African	64	87.7	17	77.3	<i>p</i> =.388 [□]	<i>φ</i> =124
	American ^a						
Adults in household	1	28	38.4	9	42.9		
	2	29	39.7	10	47.6	p=.441	V=.132
	3-4	16	21.9	2	9.5		
Children in household	0	36	51.4	16	72.7		
	1	15	21.4	3	13.6	<i>p</i> =.208	<i>V</i> =.185
	2-5	19	27.1	3	13.6		

^a Other race/ethnicity categories are not included because cell sizes were too small

^b Reported with Yates continuity correction

* Significant at the 0.05 level

Demographics of respondents who rated their diets as healthy

Identifying as Black or African American was significantly associated with rating one's own diet as not healthy (p=.04; φ =-.25). Education level fell just short of significance (p=.09; V=.26). An ordinal logistic regression using both variables as predictors was a significantly improved fit of the data over a model using no predictors (p=.01; Nagelkerke R²=.15). Identifying as Black or African American (p=.03) and having the lowest level of education (p=.04) were both significant predictors of lower levels of self-rated diet healthiness.

		Not healthy		Healthy		Pearson chi-square test	
		Ν	%	Ν	%	Sig.	Corr.
Gender	Woman	28	84.8	45	77.6	p=.403	<i>φ</i> =.088
	Man	5	15.2	13	22.4		
	20-39	8	24.2	13	23.6	p=.175	
Age	40-59	13	39.4	11	20.0		1/- 227
quartile	60-69	8	24.2	17	30.9		v=.237
	70+	4	12.1	14	25.5		
	HS or less	13	37.1	13	22.4		
Education	Beyond HS	14	40.0	17	29.3		
level	College degree	6	17.1	17	29.3	p=.090	<i>V</i> =.264
	Advanced degree	2	5.7	11	19.0		
Race/ ethnicity	Black or African American ^a	33	97.1	46	79.3	<i>р</i> =.040	φ=246*
Adults in household	1	13	37.1	24	42.1		
	2	14	40.0	24	42.1	p=.690	<i>V</i> =.090
	3-4	8	22.9	9	15.8		
Children in household	0	17	50.0	33	60.0		
	1	7	20.6	11	20.0	p=.558	<i>V</i> =.114
	2-5	10	29.4	11	20.0		

Table 28. Demographics of respondents who rated their diets as healthy

^a Other race/ethnicity categories are not included because cell sizes were too small

^b Reported with Yates continuity correction
Demographics of respondents whose households had special dietary needs

No demographic factors were significantly related to having special dietary needs in the household, although identifying as Black or African American was on the borderline (p=.07; φ =-.19). Among the 38 respondents who reported special dietary needs in their households, there were no detectable demographic patterns, possibly because the size of this subsample was very small.

Table 29. Demographics of respondents whose households had special dietary needs

		No special dietary needs		Spo dietar	ecial y needs	Pearson chi-square test		
		N	%	Ν	%	Sig.	Corr.	
Gender	Woman	44	78.6	30	83.3	n = 574	(n=- 059	
Gender	Man	12	21.4	6	16.7	<i>p</i> =.374	$\psi =059$	
	20-39	14	25.9	8	22.9			
Age	40-59	15	27.8	9	25.7	n = 122	V- 177	
quartile	60-69	12	22.2	13	37.1	p=.423	V177	
	70+	13	24.1	5	14.3			
	HS or less	19	32.8	7	19.4			
Education	Beyond HS	19	32.8	13	36.1			
lovel	College degree	14	24.1	9	25.0	p=.418	<i>V</i> =.174	
level	Advanced	6	10.3	7	19.4			
	degree	-		-	_//			
Race/	Black or							
ethnicity	African	52	91.2	28	77.8	<i>p</i> =.068	<i>φ</i> =189	
	American ^a							
Adults in	1	22	39.3	14	38.9			
household	2	27	48.2	12	33.3	p=.141	<i>V</i> =.206	
neaccheta	3-4	7	12.5	10	27.8			
Children in	0	31	57.4	19	52.8			
household	1	9	16.7	9	25.0	<i>p</i> =.620	<i>V</i> =.103	
nousenolu	2-5	14	25.9	8	22.2			

^a Other race/ethnicity categories are not included because cell sizes were too small

^b Reported with Yates continuity correction
* Significant at the 0.05 level
** Significant at the 0.01 level
*** Significant at the 0.001 level

Qualitative results

Food needs and wants. The survey asked respondents what they liked about the places where they shopped for food most often. In their responses, they often mentioned specific categories of foods that drew them to that store. In addition, they sometimes mentioned specific foods that they needed or tried to buy for their households frequently as well as foods they felt were important to make more available on the east side of Gainesville. Overwhelmingly, the produce category was mentioned most frequently, with 47 respondents expressing a desire for access to produce, sometimes expressed as 'produce' generally (23 respondents) or as 'fruits' (20 respondents), and/or 'vegetables' (21 respondents). Several respondents gave specific examples such as greens (4 respondents). The second most popular category was proteins, with 28 respondents wanting products such as meats (25 respondents) or seafood (5 respondents). Ten respondents also wanted beverages of various kinds, including sugar-free drinks (4 respondents) or lactose-free milk (3 respondents). Nine respondents were interested in foods considered natural, especially organic foods (6 respondents). Categories mentioned less often included grains (6 respondents), deli items like sandwiches and salads (6 respondents), and canned goods (5 respondents). There were additional items that fewer than five respondents mentioned that are not reported here.

A concept that came up very frequently when respondents were discussing foods they wanted was *freshness*, with 44 respondents using this term. Most often, it was used as a descriptor for produce and proteins. Some respondents also used it when comparing the selections of different stores and explaining why they chose one store over another. A couple of respondents elaborated on what they meant by freshness. "We want it to look like it's supposed to look, not browning," said one respondent. "We consider healthy food to be fresh, clean, even the meat looks good in the package" (P045). Five respondents also mentioned that foods offered through food assistance programs are not fresh. "Do not give expired food," said one respondent when asked for ideas to improve food access in their community, "donate fresher stuff" (P077). "Most of the meat is frozen burned food, or expired," explained another. "One time I got apples, and the fruit at the bottom were going bad" (P088). "I am tired of the food assistance they are giving away," said another respondent. "They're giving away outdated stuff from the grocery store that they're throwing out. Why would they bring that kind of food to our community?" (P091).

Over a third of respondents (39 people) described special dietary needs within their households. Twenty-six respondents listed health conditions that they or someone else in their household experienced. Most commonly this included diabetes (10 respondents) and food allergies or intolerances to specific items such as lactose (10 respondents). Six respondents also mentioned high blood pressure. Less commonly mentioned conditions included high cholesterol, Crohn's disease, post-surgery recovery, digestive issues, and dental issues. Twenty-five respondents also mentioned types of foods they avoided due to these conditions or for other reasons. The most commonly listed of these categories included foods high in sodium (6 respondents), sugar (6 respondents). Less commonly mentioned categories included fried or greasy foods, starches, carbs, fats, spicy foods, and foods high in cholesterol or preservatives.

Facilitators. This group of codes refers mostly to access- and availability-related factors respondents listed when asked what they liked about the places where they shopped for food most often. Some respondents also mentioned factors that helped them access foods they wanted in their responses to other questions as well. Affordable pricing was the most commonly listed factor (37 respondents). This was distinct from the second most commonly listed factor, which was deals and sales such as 'buy one, get one free' (24 respondents). Some respondents mentioned both prices and deals as things they liked about their chosen shopping locations. A variety of options was another sought-after factor for places to shop (22 respondents), as was quality (14 respondents). Some respondents also appreciated when stores reliably stocked the things that they needed, and others appreciated being able to buy quantities, including buying in bulk. Less commonly, a few respondents mentioned receiving food from a workplace or getting help with shopping from their children or grandchildren.

Barriers. Not surprisingly given that the most commonly mentioned facilitators were affordable pricing and deals/sales, the most commonly mentioned barrier to accessing and preparing healthy foods was cost (39 respondents). Many specified that healthy foods were particularly expensive. As one respondent described:

Healthy foods are not very affordable. And it seems like for parents, you don't always qualify for government assistance so it all comes out of pocket [...] I can't afford the organic produce... I am just going to get what is on sale. My son now wants to eat healthier so I am buying him fresh fruit (he won't eat fresh vegetables) but he can go through it very fast. It is so expensive, but I do it for him. (P008)

The second most common barrier was time- and work-related challenges (25 respondents). Often, respondents did not have time to prepare a healthy meal or were too tired from working to cook at the end of the day. Some respondents also mentioned difficulties with shopping quickly enough or with being able to get food during the available hours of operation. "I would say that the inconvenience of getting to the store at the time that I needed it," said one respondent when asked what prevented them from preparing a healthy meal, "and even prior to COVID I was a caregiver, so I had to depend on others to do my shopping" (P089). A couple of respondents also pointed out that food assistance programs that are only offered once per week are difficult for some people to access due to their schedules.

Other barriers respondents mentioned included 1) a lack of or need for a variety of options in the stores they visited or on the east side of Gainesville generally (14 respondents); 2) difficulties accessing food assistance or receiving a sufficient quantity or quality of assistance (10 respondents); 3) illnesses or injuries, including concerns surrounding the COVID-19 pandemic (9 respondents); 4) having a low personal food supply (5 respondents); 5) challenges with storing food (5 respondents); 6) grocery store stock of insufficient quality (4 respondents) or quantity (3 respondents); 7) budgeting and finance challenges (3 respondents); and 8) stigma associated with receiving food assistance (3 respondents).

Personal contributions. Thirty respondents mentioned specific ways they could personally contribute to efforts to improve food access in their community. More than half of these respondents (17 people) already do or would be willing to give food to others and/or bring it to them. Examples included shopping for their neighbors, cooking for their neighborhood, growing food to feed their neighbors, sharing fish they caught, giving leftover foods to people who need food, and donating to food drives. Other ideas respondents mentioned included sharing information about available resources (9 respondents), making or soliciting donations (6 respondents), and volunteering (5 respondents).

Focus Group and Interview Results

Food needs and wants.

Twelve of the 16 participants mentioned types of foods that they have sought and/or feel are important to have in their community. Produce was once again the most popular category (9 participants), followed closely by proteins including meat, fish, turkey, and plant-based alternatives (7 participants). Four participants also mentioned wanting vegetarian or vegan options, two wanted organics, and two wanted whole foods. In addition, two participants wanted beverages including water, 100% juice, and milk, and two wanted pasta. Other items mentioned by only one person are not listed here.

Freshness was once again an important concept, with 12 of the 16 participants using this term. The general consensus was that having fresh foods of all kinds—but most especially fruits and vegetables—available and accessible on the east side of Gainesville is important. As one participant explained, "You have, in my neighborhood, like the Dollar General and the Family Dollar, where you can go in and get stuff to make a meal, but you can't get an apple. You couldn't get any fresh produce in our area. I would say, at this point, it's a human rights issue with East Gainesville and where we live" (FG2.3). "We want the fresh food," said another participant, "and the large variety, and we also want good pricing. We don't want people to jack up our prices" (FG1.4). Still, some respondents also pointed out ways in which simply making fresh options *available* on the east side is not enough due to additional challenges that residents face. The quote below illustrates that education and exposure are also important to consider:

I think it varies for each person. So part of me wants to say yes, we need green food options out east. But then I also say, fresh food goes bad really fast, too. And if you aren't going to cook it, you're wasting it, so then so then where are we? Yeah, some people know how to cook greens, some people don't. And so what does it matter if I have a farm on the East side of Gainesville if I don't know how to cook nothing fresh? (FG2.1)

Five participants discussed special dietary needs that they or others they know have. Diets they mentioned included avoiding fried foods and too much salt, using turkey and vegetarian options instead of beef, which is difficult to digest, diets to manage diabetes, and vegan diets. Two participants discussed how some people are unable to meet the special dietary needs of their households. As one explained, "I know families that will do without whatever that dietary restriction is, and tough it out until they're able to get it" (Interview). Another participant spoke from personal experience:

> The cost of some food items keeps me from living my best life, as I want to say. I would love to go vegan. I have a medical condition that would improve if I were to go vegan. I tried it for a month; it was so expensive. Even the vegan options aren't healthy now. That market has become so busy. It was really tough trying to find other proteins that didn't contain soy, that weren't \$9 and \$10 for two servings. (FG1.5)

Facilitators.

Four participants described factors that have been helpful to them or others in accessing food. Three mentioned receiving food assistance as being helpful. Three participants also discussed affordable pricing. One participant recommended a resource she used often called "Bobby Approved," which is a phone app that helps shoppers determine which items have healthier ingredients than others. "He mainly started on YouTube," she explained, "but he's also now partnered with WalMart, which is another thing I really like because WalMart has affordable items - especially the GreatValue - that you can afford and go ahead and buy that are healthy" (FG3.6). Another participant called for "people being able to have the financial means to -I mean, access is beyond just a store being there, but even the financial means be to be able to—walk inside and pick whatever they want, without there being pressure or limits to what is affordable, what is quality" (Interview).

Convenience was mentioned as a facilitator, which is especially interesting because convenience was also framed as a barrier by one of these same participants and a fellow focus group member, as discussed in the section below. Nonetheless, three participants variously referred to convenience as helpful, something they liked, and something that made resources accessible, like the downtown farmers market before it moved away from Bo Diddley Plaza.

Other facilitators mentioned included receiving food or help from people they knew (2 participants) and having variety and options available (2 participants). Informal ways of receiving food or help from others included passing along extra food received from food distributions to family or neighbors as well as sharing fish caught at Payne's Prairie.

Barriers.

Insufficiency of food assistance was the most thoroughly discussed barrier (9 participants). The associated food assistance report contains details on these discussions. Cost was the second-most mentioned barrier (8 participants). This involved a series of issues including having a limited grocery budget and also facing disproportionately high pricing in the immediate area without being able to get to places with more affordable pricing. "There's always the big debate of why is healthy food way more expensive," said one participant. "If somebody is actually trying, and you don't have much to live off of, you are going to spend everything you have on food that is going to break the bank. You're gonna eat what's cheap, because that's what you have" (Interview).

Seven participants also mentioned having a lack of options or variety, especially healthy options. Some people emphasized that most of the options on the east side are low-quality, unhealthy, and/or fried. "Not all the foods are terribly bad," one participant

said, "but we just don't have an option of terribly good food often, so it's just having the option of healthier choices, whole foods, fresh veggies, things like that" (FG2.3).

Other barriers mentioned included lack of time (4 participants), challenges related to the pandemic (3 participants), picky kids (3 participants), convenience (2 participants), and stigma (2 participants). As mentioned in the above section, the concept of convenience was interesting as it was listed as both a barrier and a facilitator of food access. One participant felt that today's children are "a little spoiled by convenience" (FG1.5). Another added that she found herself opting for prepared foods rather than using what was in her refrigerator. "We are programmed, okay?" she explained. "For convenience. Period, that's it. We are all programmed for convenience, we like it, our children are raised on it, you know? And so that's what keeps me from eating healthier than what I should eat" (FG1.1). Both participants also suggested that the prevalence of and reliance on quick and convenient meals instead of home cooking make it challenging for households to manage their food resources and keep from overconsuming and running out of food prematurely.

Hypothesis Testing

The following hypotheses were formed based on the qualitative results discussed above:

- 1. Respondents who used dollar stores more often will be less likely to rate their diets as healthy.
- 2. Using federal or nongovernmental food assistance will be significantly related to experiencing food access challenges.
- 3. Respondents who experienced more food access challenges will be less likely to rate their diets as healthy.
- 4. Having special dietary needs in the household will increase the likelihood of experiencing food access challenges.

Hypothesis 1: Respondents who used dollar stores more often will be less likely to rate their diets as healthy.

The rationale for this hypothesis stems from the following quote by a focus group participant: "You have, in my neighborhood, like the Dollar General and the Family Dollar, where you can go in and get stuff to make a meal, but you can't get an apple. You couldn't get any fresh produce in our area." Table 30 below shows the distribution of self-rated healthiness of diet according to dollar store shopping frequency. Please see the associated methods report for details on how the dollar store shopping frequency variable was constructed.

			Do	llar st	ore sho	pping	freque	ncy	
		None		Once a week or less		1-2 times per week		3+1 per	imes week
		N % N %		Ν	%	Ν	%		
Self-rated healthiness	I never eat healthy food.	1	1.4	0	0.0	0	0.0	1	33.3
of diet	I occasionally eat healthy food.	6	8.5	1	7.7	2	20.0	1	33.3
	I sometimes eat healthy food.	18	25.4	4	30.8	2	20.0	1	33.3
	I mostly eat healthy food.	42	59.2	8	61.5	6	60.0	0	0.0
	I only eat healthy food.	4	5.6	0	0.0	0	0.0	0	0.0

Table 30. Self-rated healthiness of diet by dollar store shopping frequency

A chi-square test for independence using binarized versions of both variables was nonsignificant. An ordinal logistic regression using the ordinal dollar store shopping frequency variable as a predictor resulted in a model that was a significantly improved fit of the data over a model using no predictors (p=.04; Nagelkerke R²=.10). Next, education level and identifying as Black or African American were added as predictors because both factors were significantly related to rating one's diet as healthy or unhealthy. This model was a significantly improved fit of the data over the null model as well (p=.003; Nagelkerke R²=.24). In this model, every level of frequency of dollar store use was a significant predictor, as were the lowest two education levels. Respondents who reported using dollar stores more often tended to rate their diets as less healthy. Thus, there was support for Hypothesis 1. However, this finding should be treated with caution because, as shown in Table 30, the highest level of dollar store use had only three respondents. More data will be required to confirm the relationship between dollar store use frequency and self-rated healthiness of diet.

Hypothesis 2: Using federal and nongovernmental food assistance will be significantly related to experiencing food access challenges.

The rationale for this hypothesis is that in the qualitative data, food assistance was listed as both a facilitator and a barrier to food access. In particular, insufficiency of the

quality and/or amount of food assistance were issues raised in both the survey and the focus groups. Table 31 below shows quartiles of the food access challenge scale according to quartiles of the federal food assistance scale and the nongovernmental food assistance scale.

			Fo	od ac	cess cl	naller	nge sca	le	
		Q1		Q2		Q3		Q	4
		Ν	%	Ν	%	Ν	%	Ν	%
Use of federal	Quartile 1	18	58.1	10	58.	7	43.8	4	17.
food assistance					8				4
	Quartile 2	0	0.0	0	0.0	0	0.0	0	0.0
	Quartile 3	10	32.3	4	23.	6	37.5	8	34.
					5				8
	Quartile 4	3	9.7	3	17.	3	18.8	11	47.
					6				8
Use of	Quartile 1	8	25.8	10	62.	5	31.3	6	26.
nongovernmen					5				1
tal food	Quartile 2	6	19.4	0	0.0	2	12.5	2	8.7
assistance	Quartile 3	10	32.3	4	25.	3	18.8	6	26.
					0				1
	Quartile 4	7	22.6	2	12.	6	37.5	9	39.
					5				1

Table 31. Food access challenges by use of federal and nongovernmental food assistance

The relationships between the food access challenge scale and both of the assistance scales violated the assumptions of ordinary least squares linear modeling. Therefore, the quartiles of the food access challenge scale were used as an outcome variable in ordinal logistic regression analyses. The model using the continuous format of the federal food assistance scale was a significantly improved fit of the data over a model using no predictors (p<.001; Nagelkerke R²=.16). The model using the continuous format of the nongovernmental food assistance scale was not, however. An ordinal logistic regression using the federal food assistance scale along with gender, age, education level, and number of children was a significantly improved fit of the data over the null (p<.001; Nagelkerke R²=.34). In this model, use of federal food assistance (p=.04) and age (p=.011) were significant predictors, while gender, number of children, and education level were not. Food access challenges decreased with age and increased with use of federal food assistance. Thus, there was partial support for Hypothesis 2. Figure 1 below plots the relationship between use of federal food assistance and experiencing food access challenges.





Hypothesis 3: Respondents who experienced more food access challenges will be less likely to rate their diets as healthy.

The rationale for this hypothesis is that study participants emphasized that healthy foods are more difficult to obtain than unhealthy foods, both because of the proximity of available options and because of the cost of healthier options. Table 32 below shows the distribution of self-rated healthiness of diet by quartiles of the food access challenge scale.

		Food access challenge scale quartiles									
		Ç)1	Q2		Q3		Q	4		
		Ν	N %		%	Ν	%	Ν	%		
Self-rated healthiness	I never eat healthy food.	0	0.0	0	0.0	0	0.0	2	7.7		
of diet	I occasionally eat healthy food.	2	6.5	2	11.1	3	17.6	2	7.7		

Table 32. Self-rated healthiness of diet by food access challenges

I sometimes eat healthy	6	19.4	7	38.9	3	17.6	9	34.6
I mostly eat healthy food.	21	67.7	7	38.9	11	64.7	13	50.0
I only eat healthy food.	2	6.5	2	11.1	0	0.0	0	0.0

An ordinal logistic regression using the continuous food access challenge scale as the sole predictor of self-rated healthiness of diet produced a model that was a significantly improved fit of the data over a model using no predictors (p=.03; Nagelkerke R²=.06). Next, age, gender, education level, identifying as Black or African American, and number of children were added as predictors. This model was a significantly improved fit of the data over the null (p=.02; Nagelkerke R²=.23). In this model, the only significant predictor of rating one's diet as less healthy was identifying as Black or African American (p=.050), although the lowest level of education fell just short of significance (p=.08). Thus, when controlling for demographic factors, the food access challenge scale was not a significant predictor of self-rated healthiness of diet. Taken together, the two models suggest that there is a relationship between food access challenges and self-rated diet healthiness, but other factors were more important in explaining the variance in self-rated diet healthiness.

Hypothesis 4: Having special dietary needs in the household will increase the likelihood of experiencing food access challenges.

The rationale for this hypothesis is that a couple of focus group participants described their own or others' experiences of wanting to access certain foods to meet special dietary needs but having to forego them due to lack of availability and/or prohibitive costs. Table 33 below shows the distribution of food access challenge scale quartiles by the presence of special dietary needs in the respondent's household.

		Food access challenge scale quartiles									
	Q1		Q2		Q3		Q4				
	N	%	N	%	Ν	%	N	%			
No special dietary	23	71.9	13	76.5	7	41.2	12	46.2			
needs											
Special dietary needs	9	28.1	4	23.5	10	58.8	14	53.8			

Table 33. Food access challenges by special dietary needs

A chi-square test for independence on the crosstab shown in Table 18 showed that the two variables were strongly related (p=.04; V=.30). The relationship between the continuous version of the food access challenge scale and special dietary needs in the household did not meet the assumptions for a t-test, so the nonparametric Mann-Whitney U test was used instead. The result was significant (p=.03). As shown in Figure 2 below, respondents who had special dietary needs in their households tended to experience more food access challenges than those who did not. Thus, there was support for Hypothesis 4.



Figure 2. Food access challenges by special dietary needs

Grace Grows Community Food Planning Technical Report 💡

Food Assistance

Survey Results

Focal variables

The quantitative sections of this report focus on the following six variables: 1) any food assistance use, 2) use of federal food assistance, 3) use of nongovernmental food assistance, 4) food assistance fit with dietary needs, 5) satisfaction with quality of food assistance received, and 6) sufficiency of food assistance for the month. Most respondents reported using at least one food assistance program within the last five years (78 percent of total respondents). Table 33 below shows the distribution of food assistance program use across programs and frequency levels. Figure 3 shows the proportions of respondents who reported any use of food assistance versus those who reported using no food assistance within the last five years. See Tables 34-36 below for the frequencies of the original and collapsed formats of the follow-up questions about food assistance match with dietary needs, quality, and quantity.

Two scales were formed from the question listing each food assistance program. Items were selected for each scale based on how the items were correlated with one another (see Table D1 in the Appendix). The two scales were 1) use of federal food assistance, incorporating student free meals, WIC, and SNAP; and 2) use of nongovernmental food assistance, incorporating pantries, food distribution from a church, and food distribution from another organization. Please see the associated methods report for details on how each scale was formed. As shown in Table 37 below, the only significant correlation between the focal variables was between food assistance fit with dietary needs and satisfaction with food assistance quality. This correlation was strong (p<.001; G=.69). Table 37 shows correlations only for respondents who reported any use of food assistance in the past five years.

Program	No use within the last five years	Any use in the last five years	Used in the last five years but not the last year	Used 1-2 times in the past year	Used 3-4 times in the past year	Used 5+ times in the past year
Pantries	58	36	6	11	6	13
Food distribution from a church	46	51	7	15	11	18
Food distribution from another organization	56	39	4	17	7	11
Student free meals	61	33	0	10	1	22
Backpack program	79	14	1	5	1	7
WIC	78	15	4	4	0	7
SNAP	52	44	4	9	1	30
Fresh Access Bucks	88	9	5	2	1	1

Table 33. Summary of food assistance usage responses

Figure 3. Use of any food assistance programs in the past five years



If you have received food from a food assistance program or pantry, how often does the food fit your household's dietary needs?	Ν	%	Binarized	Ν	%
Almost never	6	5.8	Not well	32	31.1
Occasionally	13	12.6			
Sometimes	13	12.6			
Often	11	10.7	Well	37	35.9
Almost always	26	25.2			
Don't know/prefer not to respond	1	1.0	Missing	34	33.0
Not applicable	14	13.6			
Missing	19	18.4			

Table 34. Food assistance fulfillment of dietary needs

Table 35. Satisfaction with food assistance quality

If you have received food from a food assistance program or pantry, how satisfied are you with the quality of food you received?	N	%	Collapsed	N	%
Completely dissatisfied	2	1.9	Unsatisfied	11	10.7
Somewhat dissatisfied	3	2.9			
Neither satisfied nor dissatisfied	6	5.8			
Somewhat satisfied	27	26.2	Semisatisfied	27	26.2
Completely satisfied	32	31.1	Satisfied	32	31.1
Not applicable	15	14.6	Missing	33	32.0
Missing	18	17.5			

Table 36. Sufficiency of food assistance for the month

If you receive food assistance (such as SNAP or WIC), how often does the food you get cover you for the month?	N	%	Binarized	N	%
Never	12	11.7	Not well	29	28.2
Occasionally	4	3.9			
Sometimes	13	12.6			
Often	3	2.9	Well	21	20.4
Almost always	18	17.5			

Don't know/prefer not to respond	1	1.0	Missing	53	51.5
Not applicable	16	15.5			
Missing	36	35.0			

Table 37. Correlation matrix of focal variables

		Food	Satisfaction	Sufficiency	Use of
		assistance	with food	of food	federal food
		fit with	assistance	assistance	assistance
		dietary	quality	for the	scale
		needs		month	
Satisfaction	Gamma	.690***			
with food	Significance	<.001			
assistance	Ν	62			
quality					
Sufficiency of	Gamma	.169	.168		
food assistance	Significance	.327	.309		
for the month	Ν	41	43		
Use of federal	Spearman's				
food assistance	rho	.074	085	.242	
scale	Significance	.581	.512	.128	
	Ν	58	62	41	
Use of nongov.	Spearman's				
food assistance scale	rho	255	178	.089	151
	Significance	.053	.171	.569	.211
	Ν	58	61	43	70

Correlations are computed only for the subset of respondents who reported any use of food assistance (N=80).

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Demographics of respondents who have used food assistance programs in the last five years

Only 17 of the 103 total survey respondents reported using no food assistance within the last year. 80 respondents did report using food assistance. The demographic factors significantly related to use of food assistance were identifying as Black or African American (p=.049; φ =.25), identifying as an 'other' race/ethnicity (p=.04; φ =-.27), and having any children in the household (*p*=.03; φ =.24). Education level fell

just short of significance (p=.07; V=.24). A binary logistic regression using all four variables was a significantly improved fit of the data over a model using no predictors (p=.02; Nagelkerke R²=.26). None of the variables was significant in the model when controlling for the other factors.

		Did not use		Used		Pearson chi-square test	
		Ν	%	Ν	%	Sig.	Corr.
Condor	Woman	10	62.5	63	84.0	<i>p</i> =.106	(a- 20E
Genuel	Man	6	37.5	12	16.0	b	$\psi^{-2.203}$
	20-39	2	12.5	20	27.8	Collaizas	tooomall
Age	40-59	7	43.8	17	23.6	to roport	100 Small
quartile	60-69	5	31.3	20	27.8	rolighty	resuits
	70+	2	12.5	15	20.8	тепалу	
	HS or less	2	12.5	24	31.2		
Education	Beyond HS	4	25.0	28	36.4	n = 0.70	1/- 220
level	College degree +	10	62.5	25	32.5	p=.070	V239
Race/ ethnicity	Black or African American ^a	11	68.8	69	90.8	<i>р</i> =.049	φ=.248*
Adulta in	1	7	43.8	28	37.3		
Auuus III	2	8	50.0	31	41.3	p=.372	V=.147
nousenold	3-4	1	6.3	16	21.3		
Children in	No	13	81.3	37	50.7	n- 026	···- 027*
household	Yes	3	18.8	36	49.3	p=.026	$\varphi = .237^{*}$

Table 38. Demographics of respondents who have used food assistance programs in the last five years

^a Other race/ethnicity categories are not included because cell sizes were too small

^b Reported with Yates continuity correction

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Demographics of respondents who have used federal food assistance in the past five years

The demographic variables significantly related to using federal food assistance in the past five years included children in the household (p<.001; V=.60), age quartile

(p=.006; V=.39), and identifying as an 'other' race/ethnicity (p=.04; φ =-.27). Education level fell just short of significance (p=.07; V=.283). A binary logistic regression using all four variables as predictors was a significantly improved fit of the data over a model using no predictors (p<.001; Nagelkerke R²=.54). The factor that remained a significant predictor in this model was the number of children in the household (p=.007).

		Did not use		U	sed	Pearson chi-square test		
		Ν	%	Ν	%	Sig.	Corr.	
Gender	Woman Man	31 8	79.5 20.5	38 9	80.9 19.1	p=.874	<i>φ</i> =017	
Age quartile	20-39 40-59 60-69 70+	3 10 11 12	8.3 27.8 30.6 33.3	18 12 12 5	38.3 25.5 25.5 10.6	p=.006	V=.389**	
Education level	HS or less Beyond HS College degree Advanced degree	9 10 14 7	22.5 25.0 35.0 17.5	17 19 8 4	35.4 39.6 16.7 8.3	<i>p</i> =.071	V=.283	
Race/ ethnicity	Black or African American ^a	32	80.0	42	89.4	p=.222	φ=.131	
Adults in household	1 2 3-4	19 16 4	48.7 41.0 10.3	15 21 11	31.9 44.7 23.4	p=.157	V=.207	
Children in household	0 1 2-5	33 4 1	86.8 10.5 2.6	13 13 20	28.3 28.3 43.5	p<.001	V=.599** *	

Table 39. Demographics of respondents whose who have used federal food assistance in the past five years

^a Other race/ethnicity categories are not included because cell sizes were too small

^b Reported with Yates continuity correction

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Table 39 above shows significance tests using a binary variable for no use versus any use of federal food assistance in the last five years. Table 40 below shows significance tests using a scale reflecting how frequently respondents used SNAP, WIC, and/or student free meals. Please see the associated methods report for details on how this scale was constructed. This variable was highly skewed, so ordinary least squares linear modeling was not appropriate. Instead, nonparametric tests for significance were used. Then, the significant variables were tested together-using continuous versions where possible—in an ordinal logistic regression using quartiles of the federal food assistance scale. Federal food assistance use was highest in the youngest age quartile, lowest at the college degree education level, and higher with increasing numbers of children. These three predictors explained much of the variation in federal food assistance use in an ordinal logistic regression (p<.001; Nagelkerke R²=.66). Notably, when age and number of children were controlled for, education level was no longer a significant predictor of federal food assistance use level. Younger age (p=.03) and higher number of children in the household (p<.001) remained significant predictors.

		Test used	Significance
Gender	Woman	Mann-Whitney U	p=.796
	Man		
Age quartile	20-39	Kruskal-Wallis	<i>p</i> <.001***
	40-59		
	60-69		
	70+		
Education	HS or less	Kruskal-Wallis	p=.015*
level	Beyond HS		
	College		
	degree		
	Advanced		
	degree		
Adults in	1	Kruskal-Wallis	p=.315
household	2		
	3-4		
Children in	0	Kruskal-Wallis	p<.001***
household	1		
	2-5		

Table 40. Demographics of respondents tested against federal food assistancescale

* Significant at the 0.05 level

Demographics of respondents who have used nongovernmental food assistance in the past five years

As shown in Table 41 below, the only demographic factor that was significantly related to nongovernmental food assistance use was identifying as Black or African American (p=.047; φ =.25). Those who identified as Black or African American were more likely to have used nongovernmental food assistance.

		Did n	iot use	Used		Pearson chi-square test	
		Ν	%	N	%	Sig.	Corr.
Condor	Woman	22	75.9	45	80.4	n- 621	(n== 052
Genuer	Man	7	24.1	11	19.6	μ=.031	$\psi =052$
	20-39	8	27.6	12	22.2		
A do quartilo	40-59	9	31.0	13	24.1	n- 111	1/- 196
Age quartile	60-69	9	31.0	15	27.8	p411	V100
	70+	3	10.3	14	25.9		
Education level	HS or less	8	27.6	17	29.3		
	Beyond HS	9	31.0	19	32.8		
	College degree	7	24.1	15	25.9	p=.933	<i>V</i> =.071
	Advanced degree	5	17.2	7	12.1		
Race/ ethnicity	Black or African American ^a	21	72.4	52	91.2	<i>р</i> =.047	φ=.248*
	1	13	44.8	21	37.5		
Adults in	2	13	44.8	24	42.9	p=.528	<i>V</i> =.123
nousenola	3-4	3	10.3	11	19.6		
	0	17	58.6	30	55.6		
bougebold	1	7	24.1	8	14.8	p=.353	<i>V</i> =.158
nousenota	2-5	5	17.2	16	29.6		

Table 41. Demographics of respondents who have used nongovernmental foodassistance in the past five years

^a Other race/ethnicity categories are not included because cell sizes were too small

^b Reported with Yates continuity correction

Table 41 above shows significance tests using a binary variable for no use versus any use of nongovernmental food assistance in the last five years. Table 42 below shows significance tests using a scale reflecting how frequently respondents used pantries, church food distributions, or distributions from other organizations. Please see the associated methods report for details on how this scale was constructed. This variable was highly skewed, so ordinary least squares linear modeling was not appropriate. Nonparametric tests for significance were used instead. There were no significant results.

		Test used	Significance
Gender	Woman	Mann-Whitney U	<i>p</i> =.826
	Man		
Age	20-39	Kruskal-Wallis	p=.886
quartile	40-59		
	60-69		
	70+		
Education	HS or less	Kruskal-Wallis	p=.962
level	Beyond HS		
	College degree		
	Advanced		
	degree		
Adults in	1	Kruskal-Wallis	p=.183
household	2		
	3-4		
Children in	0	Kruskal-Wallis	p=.293
household	1		
	2-5		

Table 42. Demographics of respondents tested against nongovernmental foodassistance scale

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Demographics of respondents whose food assistance has fit with household dietary needs

The collapsed version of the education level variable was strongly related to how well the food assistance respondents received fit with their household's dietary needs (p=.03; V=.34). Those who had not attained education beyond a high school diploma or GED more frequently reported that their needs were met well than those who had more education. This relationship is depicted in Figure 4 below. An ordinal logistic regression using the collapsed education level variable as a predictor was a significantly improved fit of the data over a model using no predictors (p=.03; Nagelkerke R²=.10) and confirmed that those with the lowest education level reported that their needs had been significantly better met than other respondents (p=.02).

		Not well		Well		Pearson chi-square test	
		Ν	%	Ν	%	Sig.	Corr.
Condor	Woman	25	92.6	29	85.3	p=.628	(a - 114)
Gender	Man	2	7.4	5	14.7	b	ψ^{114}
	20-39	7	30.4	12	34.3	Collaizas	tooomall
Age	40-59	4	17.4	6	17.1	to report	100 Small
quartile	60-69	7	30.4	10	28.6	rolighty	resuits
	70+	5	21.7	7	20.0	Тепалу	
	HS or less	3	11.1	15	41.7		
Education	Beyond HS	13	48.1	11	30.6	n = 0.20	1/- 225*
level	College degree +	11	40.7	10	27.8	p=.029	V555
Race/ ethnicity	Black or African American ^a	24	88.9	34	97.1	<i>р</i> =.429	φ=.167
Adulta in	1	12	48.0	10	27.8		
Adults in household	2	9	36.0	17	47.2	p=.263	<i>V</i> =.209
	3-4	4	16.0	9	25.0		
Children in	No	15	55.6	14	41.2	n = 264	(0 - 1.12)
household	Yes	12	44.4	20	58.8	<i>μ</i> =.264	ψ=.145

Table 43. Demographics of respondents whose needs are met by food assistance programs

Correlations are computed only for the subset of respondents who reported any use of food assistance (N=80).

^a Other race/ethnicity categories are not included because cell sizes were too small

^b Reported with Yates continuity correction
* Significant at the 0.05 level
** Significant at the 0.01 level

*** Significant at the 0.001 level

Figure 4. Relative proportions of food assistance fitting with household dietary needs by education level



Demographics of respondents who are satisfied with the quality of the food assistance they have received

There were no demographic factors significantly related to how satisfied respondents were with the quality of food assistance they had received.

Table 44. Demographics of respondents who were satisfied with the quality of the food assistance they received

		Less than satisfied		Sati	sfied	Pearson chi-square test	
		Ν	%	Ν	%	Sig.	Corr.
Gender	Woman	31	91.2	23	79.3	p=.327	<i>(</i> 2-160
	Man	3	8.8	6	20.7	b	ψ =.109
	20-39	10	31.3	9	32.1		V=.197
Age	40-59	9	28.1	4	14.3		
quartile	60-69	7	21.9	10	35.7	p = .505	
	70+	6	18.8	5	17.9		

	HS or less	7	20.6	13	41.9		
Education level	Beyond HS	15	44.1	10	32.3	n = 176	1/- 221
	College degree +	12	35.3	8	25.8	<i>p</i> =.178	V231
Race/ ethnicity	Black or African American ^a	30	88.2	30	100.0	<i>р</i> =.155	φ=.243
Adults in	1	14	43.8	6	19.4		
household	2	12	37.5	16	51.6	p=.113	V=.263
nousenotu	3-4	6	18.8	9	29.0		
Children	No	16	47.1	13	46.4		
in household	Yes	18	52.9	15	53.6	p=.961	φ=.006

Correlations are computed only for the subset of respondents who reported any use of food assistance (N=80).

^a Other race/ethnicity categories are not included because cell sizes were too small

- ^b Reported with Yates continuity correction
- * Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Demographics of respondents whose food assistance covers them for the month

There were no demographic factors significantly related to how well the food assistance respondents had received covered them for the month. This lack of detectable patterns may be a result of the fact that only about half of respondents who reported using any food assistance answered this question.

Table 45. Demographics of respondents whose food assistance covers them for the month

		Not well		Well		Pearson chi-square test	
		Ν	%	Ν	%	Sig.	Corr.
Condor	Woman	21	84.0	15	78.9	n- 971	(0- 06E
Gender	Man	4	16.0	4	21.1	p = .971	$\psi = .065$
	20-39	9	34.6	8	42.1	Colleizes	too cmall
Age	40-59	6	23.1	2	10.5	to report results	
quartile	60-69	5	19.2	8	42.1		
	70+	6	23.1	1	5.3	Tellubly	

	HS or less	8	30.8	10	52.6		
Education	Beyond HS	11	42.3	7	36.8	n- 738	1/- 253
level	College degree +	7	26.9	2	10.5	p230	V233
Race/	Black or					p=1.000	
ethnicity	African	23	92.0	18	94.7	b	<i>φ</i> =.054
,,	American ^ª						
Adults in	1	13	52.0	6	31.6		
househol	2	7	28.0	8	42.1	p=.394	<i>V</i> =.206
d	3-4	5	20.0	5	26.3		
Children	No	9	36.0	6	35.3		
in						n = 0.62	a = 0.07
househol	Yes	16	64.0	11	64.7	p=.905	$\psi = .007$
d							

Correlations are computed only for the subset of respondents who reported any use of food assistance (N=80).

^a Other race/ethnicity categories are not included because cell sizes were too small

^b Reported with Yates continuity correction

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Qualitative results

Almost half of survey respondents (47 people) discussed their experiences with food assistance and/or their ideas for how to improve food assistance in their community. Twenty-three respondents spoke about food assistance generally. Many suggested offering food giveaway events to distribute healthy foods like vegetables to a large number of people. Several mentioned that events like this should be better advertised than they have been in the past, and several were willing to help inform their neighbors and spread the word about future events. In addition, several respondents suggested offering more frequent operating hours for assistance programs to better accommodate people's schedules as well as improving the freshness of the foods that are distributed. See the associated access and availability report for the discussion of the need for freshness. Other issues that only a couple of participants mentioned included wanting there to be an expectation attached to receiving government assistance, some people not accepting assistance from others, and being looked down upon and treated rudely by program workers.

A few survey respondents also described being unable to receive sufficient assistance to cover their needs. One survey respondent reported having been excluded from receiving adequate SNAP funds due to also receiving social security. Another shared, "I needed to work so much to just get the bills paid, but I worked too much to qualify for assistance programs. So I was always on the run and at work, so the kids got used to eating take out and fast food. And now I can't get them to eat a home cooked meal because that is what they got used to."

Other respondents spoke about specific kinds of programs. Comments about the types of programs the survey asked about are detailed in the program-specific findings in Appendix B. Nine respondents also discussed or suggested other types of programs. These included providing foods directly to children to eat after school and/or on the spot, supplement cards such as 'Healthy Humana,' healthy food prescriptions, free delivery of healthy foods, and a 'Misfits Market' to recover and distribute 'ugly' produce that would otherwise be wasted.

Focus Group and Interview Results

Positive experiences

One particular focus group participant mentioned all of the following programs positively: pandemic EBT, backpack programs, WIC Farmers Market Nutrition Program (FMNP) vouchers, Fresh Access Bucks, church farm-to-family giveaways, and a grant-supported program called "Fill the Plate, Feed the Mind." She was particularly enthusiastic about "Fill the Plate, Feed the Mind," which she described as, "They would teach you how to make a meal. You would come in once a week, you would have this lesson. [...] and then this sorority—Alpha Kappa Alpha—they would send you home with this reusable grocery bag full of the fixings that you needed to make that meal for your family" (FG2.2). Two other participants also mentioned programs they found helpful, including summer nutrition programs, backpack programs, food banks, and distributions from other organizations.

Negative experiences

Insufficiency of food assistance was the most thoroughly discussed barrier to accessing and eating healthy foods (9 participants), largely because much of the conversation in one of the focus groups centered around the inadequate quantity and quality of food offered through school-based programs such as the backpack programs and free student meals. Especially during the pandemic, participants reported, the 'meals' they were supposed to receive were more like snacks, meaning that more money had to come out of the household food budget. One participant was also annoyed that her children did not want to eat the food that was provided, opting instead to use their allowance to order delivery. Another reflected:

You also have to look at what the food is. It's like nuts and cheese sticks and milk. It's a lot of dairy. So when you have kids that are lactose intolerant, there's not an alternative to what these bags are. So they have yogurt and fruit, and then they have these chicken nuggets that they say, you got to put it the microwave for this amount of time, and when you look at the food, even me as an adult—and I ate school lunch—I wouldn't eat it. When my daughter was like, "I'm not eating that," I'm like, I can't really be mad at her for not wanting to eat it, because it didn't look good. (FG2.4)

It was not just the pandemic school food that participants commented on, however. One parent described how her daughter was weak and starving at the end of the school day because of lunches that were inadequate and scheduled too early in the day. Another explained that backpack programs do not sufficiently account for the nutrition needs of whole households, giving an example of a friend with six kids who receives only one backpack for all of them. A third added, "I see the food bags go home on Fridays with a lot of these kids, and a lot of the stuff they're putting in bags, they don't want. And so, they're not eating. So you already don't have food, but you don't want the free food either. And so now we're wasting even more food" (FG2.1). A fourth shared, "it would be me eating that food and like [child's name] eating the food in the house because he wasn't a big fan of prepackaged food, and of course I was like, 'Well I'm not letting it go to waste; we're eating this'" (FG2.3). Another participant offered a different perspective on the backpack programs:

> I love the backpack program. At my job, I actually see it working for families, and I've also heard moms complaining, 'Oh, well the food is giveaway food, so it's close to expiration.' Yeah, but it's edible, and it is geared so that these children can be independent and go and pop the top and throw it in the microwave, and that's—part of the point of the backpack program is to empower the children to not be waiting for that maybe one time a day that mom cooks or whomever cooks on the weekend, right? (FG2.2)

Several participants also mentioned that WIC had significant limitations, including the FMNP vouchers. One person explained that getting to the farmers markets to spend the vouchers was challenging, and another added that it would be better if farmers on the east side were allowed to accept them at their farms and not just at markets. A few participants also reported that the items the program allows people to buy using WIC are limited, low-quality, and often unhealthy. One former WIC recipient explained:

It's not food that digests well. It's food to fill you up. It's just a filler. It's not really making you healthier. There's a lot of kids on WIC that are obese, because their families are getting whole milk, they're getting these high-fructose juices, and this disgusting cheese. Like he said, you're getting this cheese that is just not healthy. The food on it is not the healthiest, but they're promoting it as if you have to get this, and this is the healthiest choice, but it's not always the healthiest choice. It seems like it's the cheaper choice for these *programs*, and not the best choice for the *participants* of the programs. But then they blame the *participants* when the programs aren't being *used*. Because I remember being on WIC, and my daughter could not drink Carnation Good Start, and she had to have Enfamil with Iron, and I got less cans of milk because my daughter had to have a milk that would cost more. So still, I was coming out of my pocket.

Another participant explained how the design and operation of some food assistance programs currently hinders participants' capacities for obtaining and using fresh foods:

What happened for our family was because of what we were limited to get through WIC—food stamps is a lot more open than that—but we had pickiness in our house. And the kids weren't used to getting the fresher things or the more fancy things, and the things we were eating were more processed and cheaper and lower-cost, and that's what they were used to, and so when we wanted to switch it to healthier and better options, it was a hard switch. And if we had had those options all along, they would have grown up knowing that. (FG1.3)

For SNAP, which is a much less-restrictive program in terms of what recipients are allowed to buy, the two issues were that the funds people received were not enough and that the application process is too difficult and sometimes impossible to complete. "You run out," said one former SNAP recipient, "And I used to always think, suppose they would give people who need food assistance, give it to them twice a month rather than every once a month. Once at the beginning of the month, and then maybe once in the middle of the month. Because you run out" (FG1.1). This participant further explained, "Not everybody gets food stamps that have food insecurity, okay? So they have to budget their money, and if they have \$100 for groceries, and they have four kids and two adults, that \$100 is not going to go far at a convenience store or at a dollar store where they are" (FG1.1). Another participant described being unable to sign up for SNAP while experiencing houselessness:

So, there was once a time in my life where I was a full-time student working 15 hours a week and had no roof. I had no place to lay my head, no car, no mothering. I was just going to Starbucks just to turn in my work on time. Reporting to work just so that I could take care of my basic, bare necessities, because those 15 hours a week, it wasn't cutting it. And I applied for food stamps, but even if you are technically homeless, you still have to have an address so that they can send you your card. So, ma'am, sir, how? How? So it's that application process absolutely needs to be vetted and just really, really examined, because it's terrible. (FG1.5)

Finally, several participants shared that sometimes the opportunities to receive food assistance are not adequately advertised. One parent wondered why her daughter, who had qualified for free student meals, had never been offered a backpack and had never received her pandemic EBT card. Other issues mentioned were not knowing where to spend WIC FMNP vouchers and not knowing about food banks and food distributions available in the area.

Summary of program-specific results

Pantries. About a third of respondents (35 percent) reported any use of pantries within the past five years. Respondents who used pantries significantly more often reported that the food assistance they had received covered them for the month 'often' or 'almost always.' Improvements study participants suggested included expanding the number of pantries, better spreading the word about pantries that are available, and making the offerings fresher and less repetitive.

Church distributions. Half of respondents (50 percent) reported using church food distributions within the past five years. Using church food distributions was significantly more common among respondents who identified as Black or African American. Multiple survey respondents also described being involved in operating food distributions through their churches.

Distributions from other organizations. About a third of respondents (38 percent) reported using food distributions from other organizations in the past five years. This was significantly more common among households with more adults. Survey respondents' suggestions for additional places to offer food distributions included community centers, schools, and public health facilities.

Backpack programs. Only 14 respondents reported using backpack programs in the last five year. Backpack programs received mixed reviews among focus group participants. Issues participants raised included poor food quality and resulting food

waste as well as insufficient quantities for larger households since the programs typically serve only the elementary children. On the other hand, one focus group participant was particularly effusive with praise for the backpack program, and another reported being surprised to learn how many families did need the program for weekend meals.

Student free meals. About a third of respondents (32 percent) reported using student free meals within the past five years. Issues study participants raised including a stigma surrounding using this program as well as low-quality and unhealthy foods. The focus group discussions in particular emphasized that during the COVID-19 pandemic the offerings to students while schools were closed were insufficient in both quantity and quality.

WIC. Only 15 percent of respondents reported using WIC within the last five years, and these respondents were significantly less likely to have been satisfied with the quality of the food assistance they had received. The focus group results supported this finding, with study participants explaining that the restrictions on what participants can purchase with WIC prevented households from being able to meet their special dietary requirements as well as expose children to healthier options from a young age. Although some participants mentioned that the farmers market vouchers were helpful, there was some agreement that spending them can be difficult or impossible for many WIC recipients.

SNAP. Slightly less than half of respondents (43 percent) reported using SNAP in the past five years. SNAP use was least common among respondents with a college degree and more common among households with more children. Study participants' suggestions for improvement included improving the application and qualification process as well helping SNAP recipients shop for healthy foods. Other issues participants raised included being unable to use SNAP for fruits and vegetables on the east side of Gainesville, crowded stores on food stamp day, and not receiving enough funds to cover the full month. On the other hand, a few survey respondents reported receiving enough benefits to cover their needs and sometimes share.

Fresh Access Bucks. Only nine respondents reported using Fresh Access Bucks in the past five years. Members of the research team noticed that many of the people interviewers spoke to while doing in-person interviews did not know about Fresh Access Bucks but were very interested in participating when they heard it described. One focus group participant explained that the program is very helpful, but taking advantage of it relies on advanced planning, energy, and sometimes training. Other participants in the focus group pointed out that the farmers markets are not very accessible to many people who could otherwise use the program.

Hypothesis Testing

The following hypotheses were formed based on the qualitative results discussed above:

- 1. Having special dietary needs will increase the likelihood that food assistance will not sufficiently meet dietary needs.
- 2. Participants who used programs with less choice will be less satisfied with the quality of the food assistance they received than participants in programs with more choice.
- 3. Participants who have used WIC in the last five years will be less likely to report that their diets are mostly healthy.

Hypotheses 1 and 2 were tested only for the subset of respondents who reported any use of food assistance within the last five years (N=80). Hypothesis 3 was tested with the full sample.

Hypothesis 1: Having special dietary needs will increase the likelihood that food assistance will not sufficiently meet dietary needs.

This hypothesis was formed in response to the following quote from a focus group participant: "You also have to look at what the food is. It's like nuts and cheese sticks and milk. It's a lot of dairy. So when you have kids that are lactose intolerant, there's not an alternative to what these bags are." Table 46 below shows the distribution of food assistance meeting household dietary needs according to whether or not there were special dietary needs in the respondent's household.

Table 46. Food assistance meeting household dietary needs by special dietary needs

		Food assistance fit with household dietary needs										
	Alm	nost	Occas	Occasionall y					Al	most		
	ne	ver	,			Sometimes		Often		ways		
	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%		
No special dietary needs	0	0.0	7	58.3	8	66.7	4	36.4	18	72.0		
Special dietary needs	3	100. 0	5	41.7	4	33.3	7	63.6	7	28.0		



A chi-square test for independence using the binarized version of food assistance meeting dietary needs due to small cell sizes was nonsignificant. An ordinal logistic regression using special dietary needs as a predictor and the full ordinal format of food assistance fit with household dietary needs as an outcome also was not a significantly improved fit of the data over a model using no predictors. A model using all binarized program use variables as predictors also was not a significantly improved fit. However, when the collapsed version of education level was added as a predictor, the model was a significantly improved fit of the data (p=.04; Nagelkerke R²=.344). The significant predictors in this final model were education level and backpack program use. Special dietary needs was not a significant predictor. There was thus no support for Hypothesis 1.

Hypothesis 2: Participants who used programs with less choice will be less satisfied with the quality of the food assistance they received than participants in programs with more choice.

The rationale for this hypothesis was that focus group participants explained that the quality of foods distributed through backpack programs and school meals has at times been such that the food got wasted instead of eaten. They also listed the restrictions WIC places on food purchases as a detriment to the quality of foods participants can access. In the survey, respondents who received WIC were also significantly less likely to be satisfied with the quality of the food assistance they had received (p<.001; V=.47).

To test this hypothesis, a set of new variables was formed by grouping WIC, school meals, and backpacks into a 'less choice' category and grouping SNAP, pantries, and Fresh Access Bucks into a 'more choice' category. SNAP and FAB are more flexible programs by design, and pantries were included in the 'more choice' category also because many are operated in a way that allows recipients to choose items from the available options at the pantry. Distributions from churches or other organizations were not included because there is likely considerable variability in the designs of these programs. Two scores were created for each group by summing the binarized and ordinal formats of the relevant program variables. The first score was a measure of how many of each type of program the respondent participated in; thus, each respondent had a 'less choice' program score of 0-3 and a 'more choice' program score of 0-3. Table 47 below shows the distribution of satisfaction with food assistance quality across the 'less choice' and 'more choice' groups. The second score accounted for the frequency with which the respondent used the relevant programs; thus, each

respondent had a 'less choice frequency' program score of 0-12 and a 'more choice frequency' program score of 0-12.

			Satisfaction with food assistance quality						
		Uns	satisfied	Semi-s	atisfied	Satisfied			
	Ν	%	Ν	%	Ν	%			
Less choice	0 programs	3	30.0	10	45.5	14	44.3		
program	1 program	1	10.0	8	36.4	11	37.9		
use	2 programs	3	30.0	2	9.1	4	13.8		
	3 programs	3	30.0	2	9.1	0	0.0		
More	0 programs	1	10.0	4	17.4	6	20.0		
choice	1 program	3	30.0	10	43.5	15	50.0		
program	2 programs	5	50.0	9	39.1	7	23.3		
use	3 programs	1	10.0	0	0.0	2	6.7		

 Table 47. Satisfaction with food assistance quality according to use of less-choice and more-choice programs

An ordinal logistic regression of satisfaction with food assistance quality using the two variables measuring use of the less-choice and more-choice programs as predictors was a significantly improved fit of the data over a model using no predictors (p=.04; Nagelkerke R²=.12). Use of programs with less choice was a significant predictor of satisfaction with food assistance quality (p=.045) while use of programs with more choice was not. Figure 5 below visualizes the relationship between use of less-choice programs and satisfaction with food assistance quality.

Figure 5. Relative proportions of satisfaction with food assistance quality according to use of less-choice programs



Next, an ordinal logistic regression was run using the variables that accounted for the frequency of using programs with more and less choice as predictors. The less-choice program use frequency variable violated the assumption of linearity between the predictors and the log-odds, so both variables were collapsed into an ordinal variable with four levels: 0, 1-3, 4-6, 7+. The overall model was not a significantly improved fit of the data over a model using no predictors; however, one level of the less-choice program use variable was significant. Next, education level, Black or African American, and adults in household were added into the model, as these variables had been moderately (though not significantly) correlated with satisfaction with food assistance quality. This model was a significantly improved fit of the data (p=.04; Nagelkerke R²=.37). Frequency of using less-choice programs was the only significant predictor in this model. As shown in Figure 6, those with the highest use of less-choice programs were the least satisfied with the quality of food assistance they had received. Thus, there was support for Hypothesis 2.



Figure 6. Relative proportions of satisfaction with food assistance quality according to use of less-choice programs

Hypothesis 3: Participants who have used WIC in the last five years will be less likely to report that their diets are mostly healthy.

The rationale for this hypothesis was that some focus group participants also reported that the items the program allows people to buy using WIC are limited, low-quality, and often unhealthy. One respondent who had received WIC even reported that WIC's restrictions had a lasting negative effect on her family's eating habits.

	Self-rated healthiness of diet									
	I never		I		I		I mostly			
	eat		occasionally		sometimes		eat		I only eat	
	healthy		eat healthy		eat healthy		healthy		healthy	
	food.		food.		food.		food.		food.	
	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
No WIC use										100.
	1	50.0	8	80.0	18	81.8	45	86.5	5	0
WIC use	1	50.0	2	20.0	4	18.2	7	13.5	0	0.0

Table 48. Self-rated healthiness of diet by WIC use

A chi-square test for independence using the binarized version of self-rated healthiness of diet was nonsignificant. A binary logistic regression using all food assistance programs as predictors also was not a statistically improved fit of the data over a model using no predictors. Next, education level, number of adults, and number of children were added to the model as predictors. The result was once more nonsignificant. Finally, including the food access challenge scale in the model as a predictor did not achieve significance. Thus, there was no support for Hypothesis 3.

Community Engagement

Survey Results

Personal involvement.

Survey respondents described a wide variety of ways they stayed involved with their communities. Many people described being active in particular groups or organizations, while others preferred a less structured and more informal approach to cultivating relationships with their neighbors. The latter form of community involvement is discussed in greater depth in the 'culture and history' and 'communication among neighbors' sections below, while this section focuses more on organizational involvement. Church was the primary institution through which many survey respondents stayed active in their communities, with fifty-five respondents talking about church involvement. For most, their church was a key organization that facilitated their involvement in the community. Several gave specific examples, such as one respondent who shared, "Springhill Missionary Baptist church, for example. Members serve communities that may have a need for food and clothes in the Sugarhill Community. They help to get the word out about how the church can support them. They promote the services that are available at the church" (P018).

Fourteen survey respondents spoke about ways they already do or plan to volunteer in the future. Twelve respondents spoke about school-based involvement such as volunteering at schools or in school gardens, attending school board meetings, or participating in a parent-teacher association. Eleven people listed neighborhood associations they were engaged with, including the Greater Duval Neighborhood Association, Friends of Lincoln Estates, the Cedar Grove Homeowner's Association, and local crime watch organizations. These kinds of groups were by no means the only ones that respondents were connected to, and often people were involved with many different kinds of organizations at once. Please see Appendix A for a list of the specific organizations that survey respondents listed as being connected to.

Culture and history.

The survey asked respondents what people valued about their neighborhoods, and many people described aspects of the culture and history in their communities and/or on their street. Social connection was one of the key things they talked about. They explained, for example, how people got along well with each other and had developed
trust, sometimes as a result of living together for a long time. Several described their neighborhoods and close-knit or even like a family. A respondent summed these sentiments up with, "Close-knit community, look out for each other. Most of the people on the street have been here a long time, and it's almost like a family atmosphere. And not like some neighborhoods and you don't see them or don't speak to them. We stay in contact and speak to each other" (P038).

The phrase *looking out for each other* came up repeatedly with slight variations. Usually it was used without additional explanation, while in some cases respondents gave examples. A couple respondents mentioned being able to ask their close neighbors to watch their houses while they were away. One respondent included sharing food in their description of looking out for each other: "I think we all look out for each other. We help each other, we try to give food to one another and have enough to share. When we have cookouts, we try to make sure our elderly neighbors are taken care of and have a plate of food" (P052). Several respondents also described neighbors taking care of each other in a general sense or in terms of providing material or emotional support.

Some respondents especially valued the history of their neighborhoods and/or the fact that they and their neighbors had lived there for a long time. In some cases, the generational nature of their living in the neighborhood was important. One respondent summed these sentiments up with, "The traditions and history of being one of the first in an all-black neighborhood; living in a neighborhood for decades with friends gives an added comfort" (P074). Importantly, while long-established relationships play an important role in a community atmosphere, this does not necessarily mean newcomers were excluded from it. One respondent shared that they valued "the community. Everyone knows everyone, and even though I just moved here a month ago, everyone was so welcoming and kind. I feel like I am safe in this neighborhood. And I plan on feeding everyone in my neighborhood with food I am growing in my yard" (P044).

In addition to cherishing special social connections to the community, some respondents described either having or knowing someone who had particular expertise that they were willing to share with their neighbors. Topics mentioned included food awareness, reducing food waste, health, horticulture, cooking, knowledge of available material supports, beneficial organizational connections, religious education, and computer skills. One respondent gave a particularly detailed example: "There were two doctors in the neighborhood, and [one of them] delivered almost every baby on the street. He's not a pediatrician, but he used to go down the street and write a prescription. Another doctor was a dentist. [My child] fell off his bike and pierced his gum. The dentist got a hose and washed him off, said he didn't break a tooth, he's

going to be okay. So I said, thank goodness I don't have to go into [the doctor's office]" (P045).

It is important to note that while most respondents spoke fondly about the social environments in their neighborhoods, not everyone's experience was the same. When asked what people value about their neighborhoods, some residents responded that they didn't know or-more specifically-that they didn't know the community very well. In a few cases, this comment was paired with a description of the neighborhood as 'quiet,' such as: "I don't know. I have been here a while but I do not communicate with neighbors. I like that it's quiet most of the time" (P051). In a few instances, respondents mentioned people actually withdrawing from social interactions and staying to themselves. "Everybody sticks to themselves," said one respondent, "almost like survival of the fittest" (P072). People did not necessarily present their sense of disconnection from neighbors as a bad thing—in fact that was some people's preference. This is just a reminder that lifestyles, preferences and experiences vary from person to person and from neighborhood to neighborhood, and thus one size does not fit all. One form of community engagement may be successful in a particular place and for a majority of people, but it may not serve *everyone's* needs. People facing the greatest challenges and vulnerabilities likely require solutions tailored to their needs and circumstances.

Civic engagement.

Thirty respondents talked about aspects of civic engagement that they have been or plan to be involved with. Examples they described included attending and/or rallying other attendees for public meetings and events, sharing concerns about food access challenges with program managers, community organizing, gathering signatures on petitions, and advocacy. A few people particularly focused discussions of civic engagement on efforts to bring a grocery store to the east side. "I know a lot of nonprofit organization that would help," said one respondent, "if we need to raise money to start our own grocery store. There's just a lot of people that would actually help. We'd probably have to do community meetings just to get the word out, get petitions started, just to put their input in. There's a lot of stuff going on but they're not really trying to get over here" (P091).

Many people suggested they would be willing to help with planning and advising future efforts to improve food access in their community. Examples included, for instance, coordinating volunteers, researching places to get donations, participating in surveys, and talking with others about solutions. "I do talk with my friends who are definitely interested in making a difference," one respondent shared. "They are outstanding guys

and we all have the spirit of the east side at our heart. We get together to talk about issues and solutions" (P048).

Resource sharing.

Twenty-nine respondents talked about ways they or others in the community have or plan to share resources, especially in the context of helping improve food access. Examples included providing financial support, sharing the use of their personal vehicles, and seed sharing. Sixteen people talked about sharing food, such as by making donations, making deliveries, sharing leftovers, sharing garden harvests, or sharing fish they caught personally. One person was especially excited about the idea of cooking for their neighbors: "I love giving people food and I love to cook for people. I love helping people in general. I could use those skills and my love for helping people" (P043).

Communication among neighbors.

Many respondents described a wide variety of ways in which communicating with their neighbors is foundational to how they have stayed involved with the community and/or could contribute to future efforts to improve food access. Examples included checking in with and getting to know neighbors, sharing information about what's going on in the area, keeping in touch through social media, and talking with children and youth to encourage their development. "I have a lot of conversations with people that are involved in things that interest me," said one respondent. "One of my greatest interests is healthy food and food insecurity. Also, I reach out to people involved in various organizations to connect people and organizations for their mutual benefit" (P022). "My neighborhood, we look out for each other," said another respondent. "Whatever is going on, if it's food distribution or if it's a strange person in the neighborhood, we have each other's phone numbers, and we can call and tell them what the situation is" (P080). Another respondent described "Going out talking to people in the community and seeing what their needs are and making sure the people in the community feel supported. Specifically helping people with food awareness. Just talking to them and seeing what the need is" (P103).

Some respondents saw these channels of communication with their neighbors as opportunities to spread the word about food-related resources that are available but that are not always well known or well advertised. "It would have to be a program that the community is made aware of," one respondent advised. "I think the problem with this vegetable and fruit farm down 15th over in Southeast, I'm just not sure how many people know about it. It's wonderful. It's a large farm, but I didn't see many people. I just think they were not aware. So I think publicity or communication is a big issue" (P089). Fortunately, some respondents expressed a willingness to help out with efforts to improve awareness of existing resources, especially food distributions. "At the very least I could do a lot of word of mouth promotion and some marketing efforts to make sure people know about it," said one respondent, "I can do marketing online and with flyers" (P009). "You can use the churches," another respondent added. "A lot of people are open to announcements; you can announce it to the congregation" (P058).

Focus Group and Interview Results

Culture and history. The November 2021 focus group started with a discussion of what participants felt was special about their community. Their responses resonated with what many survey respondents shared about what people liked about their neighborhoods. As they said it best, their quotes are included below:

What I see that's very special about the community that I live and work in is that it's got a very deep-set tradition of culture and history. So there are a lot of folks who live and work in my community that have generational ties and strong family ties. So family being the first institution and our greatest treasure, I think that's probably one of the most special things about our community. (FG2.2)

I want to piggyback off of what [she] said, about the tradition, and about how everyone tries to stay within a tradition with the food that we eat. Things of that nature. (FG3.3)

So what I like about my community is, one, I've been there all my life, so it's just the history, and knowing everybody, and having neighbors that are more like family, and aunts, and it was the camaraderie between our neighbors and our neighborhood. And the tightness of people, not just in my community—when I say 'my community,' I don't think about it as just a small area that I live in, but I mostly think about it as East Gainesville, and that encompasses several communities. (FG3.1)

There are a lot of families in my community, and they are very helpful and supportive of one another. In some cases, there are some of my neighbors who have gardens. And it's a close-knit community, and people share a lot of their resources with others. (FG1.4)

There are still prominent people that live in those areas, their homes that are absolutely beautiful. Believe it or not, we had a street that I think they call it Hollywood. It's right across from Lincoln Middle School. And on that one street is a few prominent people. Dr. Banks has a house out there. He was a doctor years ago, who delivered many people over the years. So I can go on and on when you think of the history of the community. There's just so much. The schools. Lincoln Middle School alone. That school has a history. There's an area that was built up for housing out there. [...] And once again, there's a center on 8th Avenue for children, so that meant a lot over the years. Even at that particular center, there was a gentleman who worked there for many years that the community got to know; he raised them and their children. (FG3.4)

Resource sharing. A few focus group participants also described how people in their communities share resources. One person shared that people with farms and gardens contributed some of their harvest to food distributions through their church. Another participant described receiving food giveaway boxes from two different people she knew and then passing along the surplus to another family she felt could use it. The interview participant also suggested that using these personal networks and relationships as a way to distribute food through the community could help address the stigma that people sometimes feel when accessing foods through more formal channels such as food pantries: "Maybe people could distribute on the behalf of or be involved in those organizations, so it makes it more relational than it is like charity. So, our community could be more involved."

Communication. Three participants talked about the role of communication in making efforts to improve food access successfully. One person suggested that existing organizations would benefit from support in spreading the word about resources they offer. Another recommended creating an ambassador program centering a person from the community:

I think it'd be kinda cool if you guys maybe considered literally following someone – not on camera, per se – but if I could see someone who is heavier and I know that person right here in Gainesville, not like the whole Weight Watchers commercial, but if I know that person; "Oh that's Craig," or "Oh, that's Susan," or whatever. And in three months to whatever, now they're talking about, "We started in December, and six months later in June, we're living a healthier life, I'm happier, I'm stronger, I can do this with my child. We're in this program." If I can see it and I know that person, or even if they live on this side of town, even if I don't know that person, they're still right here in my community, it kinda hits home. And maybe that person can not just be a person who does it, but they can be an ambassador, and they can help in that garden, and because being that they're in my area, they know my lingo, they know how hard I work, they know I'm a single parent, they know what it's like because they were that person. And they did it, and I literally can see, "Okay, you did it; I can do it too." (FG3.4)

Finally, a third participant suggested that successful food access resources would further strengthen communication within the community by bringing people together and giving them a chance to talk to people they do not usually see.

Transportation

Survey Results

Focal variables

The quantitative sections of this report focus on the following three variables: 1) *use of public transportation to get groceries*; 2) *being asked for help with getting groceries*; and 3) *needing to ask for help with getting groceries*. About a fifth (21 percent) of the sample reported any public transportation use to get groceries (see Table 49). A similar proportion (22 percent) reported ever being asked by their neighbors for help getting groceries (see Table 50) One-third (33 percent) of respondents reported ever needing to ask friends, family, or neighbors for help getting groceries (see Table 51). *Public transportation use* and *needing to ask for help getting groceries* were strongly correlated (*p*=.005; *G*=.64). See Table 52 for the relative proportions of *needing to ask for help getting groceries* according to *public transportation use*. The 'Hypothesis Testing' section later in this report explores possible explanations for this relationship.

How often do you use public transportation to get groceries?	N	%	Any use of public transportation to get groceries	N	%
Never	78	75.7	No	78	75.7
Occasionally	9	8.7	Yes	22	21.4
Sometimes	4	3.9			
Often	4	3.9			
Always	5	4.9			
Missing	3	2.9	Missing	3	2.9

 Table 49. Public transportation use to get groceries

Table 50. Being asked for help with getting groceries

How often do your neighbors ask you for help getting to the store or picking up groceries for THEIR households?	N	%	Ever being asked for help getting groceries	N	%
Never	78	75.7	No	78	75.7
Once a month	6	5.8	Yes	23	22.3
A few times a month	11	10.7			

Once a week	3	2.9			
More than once a week	3	2.9			
Missing	2	1.9	Missing	2	1.9

Table 51. Needing to ask for help with getting groceries

How often do you need to ask friends, family or neighbors for help getting to the store or picking up groceries for YOUR household?	N	%	Ever needing to ask for help getting groceries	N	%
Never	67	65.0	No	67	65.0
Once a month	13	12.6	Yes	34	33.0
A few times a month	17	16.5			
Once a week	2	1.9			
More than once a week	2	1.9			
Missing	2	1.9	Missing	2	1.9

Table 52. Correlation matrix of focal variables

		Public	
		transportation	Being asked for help
		use	getting groceries
Being asked for help	Gamma	.369	
getting groceries	Significance	.125	
	Ν	99	
Needing to ask for	Gamma	.643**	.040
help getting groceries	Significance	.005	.847
	Ν	99	100

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Demographics of respondents who ever used public transportation to get groceries

When compared with the rest of the sample, respondents who reported any use of public transportation to get groceries differed significantly in age quartile (p=.03; V=.32), education level (p=.014; V=.34), and number of children in the household (p=.004; V=.35). Post-hoc analysis with Bonferroni adjustments found significant differences for the college degree group, households with no children, and households

with 2+ children. No respondents with a college degree (without a higher degree) reported ever using public transportation to get groceries. Respondents with no children in their households less commonly used public transportation, while those with 2+ children more commonly used public transportation. See Table 53 below for the frequencies of the demographic variables according to use or nonuse of public transportation to get groceries. Results of the omnibus chi-square tests as well as their correlation coefficients (either phi or Cramer's V) are also included. For race/ethnicity, only the Black or African American category is reported because the other categories had only eight or fewer respondents.

		Did n use	ot	Did u	Ise	Pearson chi-	square test
		Ν	%	Ν	%	Significanc e	Correlation
Gender	Woman Man	59 14	80.8 19.2	16 5	76.2 23.8	<i>p</i> =.875 ^b	<i>φ</i> =.048
Age quartile	20-39 40-59 60-69 70+	13 18 20 18	18.8 26.1 29.0 26.1	9 6 6 0	42.9 28.6 28.6 0.0	p=.025*	V=.322
Education level	HS or less Beyond HS College degree Advanced degree	16 25 23 10	21.6 33.8 31.1 13.5	10 8 0 3	47.6 38.1 0.0 14.3	p=.014*	V=.335
Race/ ethnicity	Black or African American ^a	62	83.8	19	90.5	p=.678 ^b	φ=.078
Adults in household	1 2 3-4	27 33 13	37.0 45.2 17.8	10 6 4	50.0 30.0 20.0	p=.455	<i>V</i> =.130
Children in household	0 1 2-5	46 11 12	66.7 15.9 17.4	6 6 10	27.3 27.3 45.5	p=.004**	V=.349

Table 53. Demographics of respondents who ever used public transportation to get groceries

^a Other race/ethnicity categories are not included because cell sizes were too small

^b Reported with Yates continuity correction

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Demographics of respondents who had ever been asked for help getting groceries

There were only two significant relationships between demographic variables and having ever been asked for help getting groceries. Respondents who identified either as Hispanic/Latinx (p=.043; φ =.28) or as American Indian/Native American (p=.049; φ =.27) more commonly reported having been asked for help getting groceries than not having been asked. However, these findings should be interpreted with extreme caution as only four people identified as part of each category. There were no other significant findings for demographics and being asked for help getting groceries. Results of the omnibus chi-square tests as well as their correlation coefficients (either phi or Cramer's V) are also included. For race/ethnicity, only the Black or African American category is reported because the other categories had only eight or fewer respondents.

		Not a	asked	Were aske	e d	Chi-square t	est
		N	%	N	%	Significanc e	Correlation
Gender	Woman Man	58 14	80.6 19.4	17 4	81.0 19.0	<i>p</i> =1.000 ^b	<i>φ</i> =004
Age quartile	20-39 40-59 60-69 70+	16 18 20 16	22.9 25.7 28.6 22.9	6 6 6 2	30.0 30.0 30.0 10.0	p=.631	V=.139
Education level	HS or less Beyond HS College degree Advanced degree	25 23 16 10	33.8 31.1 21.6 13.5	2 9 7 3	9.5 42.9 33.3 14.3	p=.172	V=.229
Race/ ethnicity	Black or African American ¹	65	89.0	16	76.2	p=.252 ^b	<i>φ</i> =155
Adults in household	1 2 3-4	25 33 14	34.7 45.8 19.4	12 6 3	57.1 28.6 14.3	p=.179	V=.192
Children in household	0 1 2-5	38 14 17	55.1 20.3 24.6	13 4 5	59.1 18.2 22.7	p=.946	V=.035

Table 54. Demographics of respondents who had ever been asked for help getting groceries

^a Other race/ethnicity categories are not included because cell sizes were too small

^b Reported with Yates continuity correction

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Demographics of respondents who ever needed to ask for help getting groceries

When compared with the rest of the sample, respondents who reported ever having to ask for help getting groceries differed significantly in terms of gender (p=.02; φ =-.24) and number of children in the household (p=.04; V=.27). A chi-square test for independence investigated whether the reason for the significance of gender was an effect of children living in the household, using gender and a binarized version of children in the household. This test found no significance. There was also no evidence that women and men differed in age or education level in the sample. Other possible explanations are 1) that the effect is just a result of women's overrepresentation in the sample, or 2) gender norms associated with the acceptability of asking for help when you need it.

		Did n	ot	Had to ask		Chi-square test		
		ask						
		Ν	%	Ν	%	Significanc	Correlation	
						е		
Gender	Woman	45	73.8	30	93.8	p=.021*	<i>φ</i> =240	
	Man	16	26.2	2	6.3			
Age	20-39	11	19.0	10	31.3	p=.372	<i>V</i> =.186	
quartile	40-59	15	25.9	9	28.1			
	60-69	17	29.3	9	28.1			
	70+	15	25.9	4	12.5			
Education	HS or less	13	21.0	13	39.4	p=.288	<i>V</i> =.199	
level	Beyond HS	24	38.7	9	27.3			
	College degree	16	25.8	7	21.2			
	Advanced	9	14.5	4	12.1			
	degree							
Race/	Black or African	51	82.3	29	90.6	p=.439 ^b	φ=.111	
ethnicity	American							

Table 55. Demographics of respondents who ever needed to ask for help getting groceries



Adults in	1	24	39.3	13	40.6	<i>p</i> =.064	V=.243
household	2	29	47.5	9	28.1		
	3-4	8	13.1	10	31.3		
Children in	0	39	67.2	13	39.4	<i>p</i> =.035*	<i>V</i> =.271
household	1	8	13.8	9	27.3		
	2-5	11	19.0	11	33.3		

^a Other race/ethnicity categories are not included because cell sizes were too small

^b Reported with Yates continuity correction

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Qualitative results

Proximity of food options. Approximately half of comments relating to transportation (79 of 153) had to do with the proximity of food options, whether to the participant's home or to other relevant destinations. Many of these comments were in response to the three sets of questions about 1) what the participant liked about their top three grocery stores; 2) reasons the participant avoided those stores; and 3) things that made it difficult to shop there. During analysis, these nine questions were collapsed into two categories representing grocery likes and dislikes. See Table 56 for the intersections between the relevant 'proximity of food options' codes and these collapsed categories.

Table 56. Intersections between 'proximity of food options' codes and grocery likes and dislikes, displayed as number of participants

Intersecting Codes	Grocery Dislikes	Grocery Likes
Proximity of food options	11	28
Walking or biking	1	1
Proximity to other	0	3
destinations		
Inaccessible locations	1	0

As illustrated above, 28 participants mentioned proximity (closeness) as one of the things they liked about at least one of the grocery stores where they shop regularly. Commonly, participants specified that the store was close to their home. Furthermore, 11 participants mentioned proximity (distance) as a factor that made shopping there difficult or that led them to avoid that store. Several participants also mentioned that a store's location near other destinations like another store or a commuting route made

it more convenient. Several respondents also mentioned they would like to have additional stores or markets closer to their communities. A few also specified that healthier options are located farther away from the east side of Gainesville.

Four respondents also mentioned that proximity is important because they relied on walking rather than a personal vehicle or public transportation. One participant advocated for "grocery stores that are within walking distance for those of us that don't have transportation to get to a grocery store." They further explained, "Sometimes you can live on a bus line but do not have the funds to take the bus to get to the stores" (P035).

One solution that six respondents mentioned is bringing food to neighborhoods through mobile farmers markets or food trucks that could deliver healthy foods to people. One participant suggested combining a mobile market with nutrition education: "It would be great to have a mobile farmers market to go into the neighborhoods to educate the families and teach the kids and help them get familiar with the healthier food options[...] Not everyone has the transportation to get what they need, so if we could have the farmers market come to the neighborhood that would be very helpful. This is a great place for info sharing too" (P008).

Delivery. A similar solution that seven participants suggested is offering delivery services. Particular models mentioned included large truck deliveries to entire neighborhoods and deliveries specifically to elderly community members. An additional five participants mentioned that they already do or would contribute to a more informal form of delivery service for neighbors. Examples included shopping for others, delivering food to institutions like churches, or bringing boxes of food to people experiencing houselessness. Some respondents also mentioned prior experiences with delivery services, such as grocery delivery options that helped overcome their transportation barriers or seeing large truck deliveries in their neighborhoods. One participant described an interesting example of a delivery model:

I figured out that there were people that didn't have transportation and it was important for me to find out who needed the food after the distribution we had going on at the church [...] When it comes to my house, I make sure I notify everyone about the food being delivered at my house and they're able to come and get it. If they can't come and get it, I make sure a responsible person is going to deliver it to them. (P080)

Public transportation. Thirteen participants mentioned public transportation, often with little detail beyond mentioning that they use it (4 participants), that they see a need for more of it (5 participants), or that it is difficult or costly to use (4 participants).

A few respondents did, however, provide further information. For example, one participant described compromising by going to the dollar store instead of paying for a bus pass or the \$3.50 fare (P059). Another suggested providing transit specifically to a weekly farmers market (P065).

Lack of personal vehicle. Nine participants mentioned that they, people they knew personally, or others in the community did not have a personal vehicle. These comments were sometimes offered to emphasize that transportation is an important barrier for many people, and sometimes to explain why grocery shopping is difficult for themselves or for others. In addition, two respondents mentioned that although they owned cars, they sometimes experienced car trouble or difficulties paying for gas that then became barriers to food access.

Volunteering personal transport. On the other hand, eight participants mentioned their willingness to contribute the use of their vehicles, either to transport people to where they needed to go or to bring food to people.

Other barriers and facilitators. Several participants mentioned barriers and facilitators of food access not mentioned above. The availability of parking at grocery stores could serve as either a barrier or a facilitator, and traffic was also an issue for one respondent. One respondent reported that curbside pickup was convenient for grocery shopping. Finally, two participants described specific examples they suggested as models for solutions. The first is the mobile market model described above. The second is a farm stand located in the parking lot of a grocery store or shopping center: "I visited one of these where a guy was selling fruit he grew in his garden out of his truck at a store parking lot (somewhere in Alachua County) and I tasted the fruit there and talked with the guy about how it tasted. It was delicious. I would like to see more of those fruit and vegetable stands" (P084).

Focus Group and Interview Results

Proximity of food options. The closeness of or distance from various places to obtain food was the most frequently mentioned category. Commonly, participants commented on the disparity in access to different choices between the east and west sides of Gainesville. One participant explained:

You have, in my neighborhood, like the Dollar General and the Family Dollar, where you can go in and get stuff to make a meal, but you can't get an apple. You couldn't get any fresh produce in our area. I would say, at this point, it's a human rights issue with East Gainesville and where we live, because while you go on to the west side and there's nothing but grocery stores, and then there's a Whole Foods. (FG2.3)

Another participant explained that living in a food apartheid increases the cost burden of food:

If I don't live close to a grocery store where I can get three for \$10, and the only thing that's around me are dollar stores and convenience stores and I have to go buy that one item for \$5, then that's creating a food insecurity for me, because I live somewhere where there's food apartheid going on[...] And so, I think in a lot of places, that's one of the reasons why food is not accessible to them[...] They have to go to dollar stores, and they have to do that, and just spend their money on stuff that they could be getting more for their money or their SNAP cards at a grocery store because the grocery store is not in their area or close to them, it's more than one mile away. They don't have any choice but to spend more of their food budget. (FG1.1)

A few participants stressed the importance of improving both the diversity and the quality of options on the east side so that it becomes on par with the west side. "I say, go look on Archer Road," said one participant. "Everything that's on Archer Road is very important on the East side of Gainesville. They have pasta places, sandwich places... just something other than Popeyes would be great. I mean, I'm not gonna even be choosy. Something better than Popeyes and Pizza Hut and Wing Stop" (FG2.5).

Public transportation. Public transportation was also mentioned relatively frequently. Several participants illustrated how inadequate bus service creates a time burden to accessing foods and also further restricts the already limited diversity of options available to people living on the east side. "When I had WIC," one participant recounted, "the fresh market was at the highway patrol station, which is not accessible for a lot of people on the east side of Gainesville who rely on public transportation to get them to where they need to go" (FG2.4). "I love Ward's," said another participant. "But again, I got a couple of dollars to spend. I'm not the average Southeast Gainesvillian right now, and I get that. So it's available, but at what cost? You gotta get on two buses to get over there, are you going to go? No. You're going to go to McDonald's and get that two-for-three and call it a day" (FG2.1). "If the transportation system was more equitable out east," a third participant suggested, "people would be able to get off from work at 6:00 and stop by the grocery store and get food and not have to worry about if they have to call somebody to come pick them up at the store in order for them to get home because there's no more buses running" (FG1.1).

Loss of accessibility. A few participants mentioned how the shifting landscape of food locations has resulted in a loss of accessibility, especially when combined with limited bus route coverage. In particular, three participants brought up the fact that the farmer's market that used to be located at Bo Diddley Plaza moved to the southwest during the pandemic. Bo Diddley Plaza was accessible via bus, while the new location was not.

Delivery. A few participants mentioned delivery programs as solutions that do or could work to bring fresh food to people. One participant described receiving boxes from two people she knew and then passing on the excess to a family member who she knew could use it (FG2.2). Another related how people at her place of worship were able to add produce from their gardens into delivery boxes for the elderly (FG1.5). Two other participants suggested creating services where food trucks would make deliveries or sales in neighborhoods or people would pick up produce from local farms and bring it to people's households.

Other transportation-related experiences. The categories *uncertainty, lack of personal vehicle, and trade-off* were mentioned less frequently but provided some insights into the experience of transportation-related barriers. In particular, food insecurity creates a stressful situation in which the need to obtain healthy food is put in competition with other priorities. "What makes it worse is having to choose between food and blood pressure medicine, food and medication, food and transportation," explained one participant. "So it's always, what's more important?" (FG1.5) Another participant added from her own experience, "I think just that fear, anxiety, not knowing what's going to happen. When this runs out, where am I going to go? I have ten dollars. How am I going to get from here to there to get what I need that's going to give my family the most nutrition for the longest amount of time until I get another ten dollars?" (FG1.3) A third participant who had a personal vehicle also described being asked for rides to the store:

I know people who call me: "Hey, can I get a ride to the store? I need to get some groceries." And they live on this side of town, and there's no grocery store. So yes, I have to go pick them up, take them to the store, bring them back. And it's not that they don't have the money to buy food, because they do. But they might not have the money to pay me for gas, or they might not have the money to pay for Uber. Or they might not have the money to catch a bus, because that's the money they need to buy food. (FG1.1)

Hypothesis Testing

Based on the qualitative results discussed above, the following hypotheses were formed to test with the quantitative variables in the survey:

- 1. Using public transportation will be associated with lower use of grocery stores and higher use of dollar stores.
- 2. Using public transportation to get groceries will be associated with experiencing more food access challenges.
- 3. Using public transportation will be associated with lower self-rated healthiness of diet.
- 4. Respondents in the oldest age group will report more frequently needing to ask for help getting groceries.

Hypothesis 1: Using public transportation to get groceries will be associated with lower use of grocery stores and higher use of dollar stores.

The rationale for this hypothesis is that some participants described the challenges associated with using public transportation as a barrier forcing people to shop at dollar stores closer to their home rather than shopping at grocery stores. The crosstabs of both variables with *public transportation use* are shown below in Table 57 and are visualized in binarized form in Figures 7 and 8. Please see the associated methods report for details on how the composite measures of *grocery store use* and *dollar store use* were constructed.

				P	ublic tr	ansp	ortatio	n use	9		
		Neve	er	Occa	sionall	Som	etime	Ofte	en	Alw	ays
				у		S				1	
		Ν	%	Ν	%	Ν	%	Ν	%	Ν	%
Frequency	None	6	7.7	4	44.4	0	0.0	0	0.0	1	25.0
of	Once/wk or	35	44.	2	22.2	3	75.0	2	50.	1	25.0
shopping	less		9						0		
at grocery	1-2	20	25.	3	33.3	1	25.0	1	25.	2	50.0
stores in	times/wk		6						0		
the last	2-3	11	14.	0	0.0	0	0.0	0	0.0	0	0.0
month	times/wk		1								
	3+	6	7.7	0	0.0	0	0.0	1	25.	0	0.0
	times/wk								0		

Table 57. Use of grocery stores and dollar stores by public transportation use



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Frequency	None	58	74.	4	44.4	4	100.	3	75.	4	100.
of			4				0		0		0
shopping	Once/wk or	10	12.	2	22.2	0	0.0	1	25.	0	0.0
at dollar	less		8						0		
stores in	1-2	7	9.0	3	33.3	0	0.0	0	0.0	0	0.0
the last	times/wk										
month	2-3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	times/wk										
	3+	3	3.8	0	0.0	0	0.0	0	0.0	0	0.0
	times/wk										

Figure 7. Relative proportions of grocery store use by public transportation use





Figure 8. Relative proportions of dollar store use by public transportation use

Binarized versions of the *store use* variables were used because 1) cell sizes were too small to use the full ordinal versions, and 2) for this question, *any* use of these store types was more relevant than how frequently they were used. For *grocery store use*, one cell (25 percent) had an expected value less than five. Therefore, the more conservative p-value with the Yates continuity correction was selected and was nonsignificant. The test with *dollar store use* was also nonsignificant.

The next step was to test if *education level*, *age*, or *number of children in the household* influenced the relationship between *public transportation use* and *grocery store use*. A binary logistic regression using the binarized *grocery store use* variable as an outcome and binarized *public transportation use* as a predictor alongside those demographic factors did not represent a significant improvement in fit over the null model.

The overall *shopping frequency* variable was next added to the model (see the associated methods report for details on how this composite measure was constructed). The survey did not ask respondents about walking distances or about use of a personal vehicle. Therefore, *shopping frequency* was the best proxy for ease of access to the store. For instance, some respondents reported visiting certain stores daily for lunch from the deli, but not necessarily for the purpose of buying groceries. Considering this flaw in the survey tool regarding ability to distinguish the purposes participants had for visiting a store, as well as the hypothesis that having greater difficulty reaching a store would lead people to make bigger but less frequent shopping trips, it was necessary to run an analysis controlling for grocery *shopping frequency*. In

a chi-square test for independence, any *public transportation use* was not significantly related to grocery *shopping frequency*. However, this variable did help explain the variance in *grocery store use*. The model that included *shopping frequency* did represent a significant improvement in fit over the null model (p<.001; Nagelkerke R²=.62). In this model, *public transportation use* was a significant predictor of *grocery store use* (p=.006). Those who reported ever using public transportation to get groceries were significantly less likely to use grocery stores when controlling for shopping frequency, education level, age, and number of children.

A binary logistic regression analysis with the same predictor variables using *dollar store use* as an outcome variable did not represent a significantly improved fit of the data over the null model.

The evidence described above partially supports Hypothesis 1. Use of public transportation to get groceries did help to explain the variance in *grocery store use* when accounting for *shopping frequency* as well as demographic variables that were related to *public transportation use*. It did not, however, help to explain the variance in *dollar store use*. Future investigations into these relationships should collect more information on how people reach their top three grocery stores, whether via walking, personal vehicles, public transportation, or some other form of transportation such as biking.

Hypothesis 2: Using public transportation to get groceries will be associated with experiencing more food access challenges.

The rationale for this hypothesis is that reliance on public transportation emerged as a barrier to food access in the qualitative results. Some participants described using public transportation—especially to stores far away from their homes—as difficult or even impossible. The descriptives of the *food access challenge scale* for each level of *public transportation use* are shown below in Table 58 and are visualized for the binarized version of *public transportation use* in Figure 9. Please see the associated methods report for details on how the *food access challenge scale* was constructed from the following three variables: 1) *needing to ask for help getting groceries*, 2) *worrying about running out of food*, and 3) *being unable to afford to prepare a healthy meal*. Higher scores on the *food access challenge scale* indicate experiencing more challenges with accessing food.

		Public transportation use							
		Never	Occasionall	Sometime	Often	Always			
			у	S					
Food	Ν	74	8	4	2	4			
access	Mean	1.53	4.75	3.25	5	2.5			
challeng	Median	1	5.5	3.5	5	2			
e scale	Min	0	1	0	4	0			
	Max	7	7	6	6	6			
	Interquarti	2	3	5	•	5			
	le range								

Table 58. Food access challenge scale descriptives by public transportation use

Figure 9. Boxplots of food access challenge scale by public transportation use



Any use of public transportation to get groceries

For this analysis, the binarized version of *public transportation use* was used because of the small cell sizes for the full ordinal variable. The data did not meet the assumptions for a t-test (Shapiro-Wilk tests were significant for both categories). Therefore, the nonparametric Mann-Whitney Test was most appropriate in this case. The group of respondents who reported any use of public transportation to get groceries reported significantly higher food access challenges than those who did not use public transportation (p<.001). To further explore the effects of other relevant variables on this relationship, the *food* access challenge scale was collapsed into approximate guartiles (0, 1, 2-3, and 4+). This collapsed variable was then used as the outcome in an ordinal logistic regression. Education level and number of children in the household were used as predictor variables since they were related to *public transportation use*. Age was not used as a predictor because it violated the assumption of linear relationship between the predictor variable and the log-odds. This model did represent a significantly improved fit of the data over the null model (p=.002; Nagelkerke R²=.22). Use of public transportation to get groceries was a significant predictor of food access challenge quartile in this model (p=.02).

Next, variables indicating any use of SNAP and any use of WIC were added into the model. Testing for an influence of these variables was important because the qualitative data indicated that sometimes transportation budgets and grocery budgets were at odds. Since SNAP and WIC can only be used to purchase food, controlling for these variables when examining the relationship between *public transportation use* and *food access challenges* was important. This model also represented a significantly improved fit of the data over the null model (p<.001; Nagelkerke R²=.30). *Public* transportation use was no longer a significant predictor of food access challenges, but SNAP use was (p=.032). Interestingly, those who reported any use of SNAP were more likely to report higher levels of food access challenges, even when controlling for education level, number of children, public transportation use, and WIC use.

These results support Hypothesis 2 with the important caveat that while *public* transportation use helps to explain some of the variance in food access challenges, it is by no means the only factor. As a follow-up, SNAP use was tested for independence against *public transportation use*. There was a strong relationship between these two variables (p<.001; φ =.41). This relationship is visualized in Figure 10 below. Overall, these data tell the story that the difficulty of using public transportation to get groceries is only one of many challenges that people who have qualified for SNAP within the past five years have had to face.

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Figure 10. Relative proportions of SNAP use by public transportation use

Hypothesis 3: Using public transportation will be associated with lower self-rated healthiness of diet.

The rationale for this hypothesis is that participants emphasized the disparity in the quality and healthiness of food choices between the east and west sides of Gainesville. Moreover, some focus group participants explicitly stated that if they had to rely on public transportation to get to stores where they were able to access healthier items, they would instead opt for less-healthy choices closer to home because using public transportation to reach the opposite side of town is so onerous. The crosstabs of these variables are shown below in Table 59 and are visualized in binarized form in Figure 11.

		Public transportation use										
	Never		Occasionall Sometim		Often		Always					
			у	_	es							
	Ν	%	Ν	%	Ν	%	Ν	%	Ν	%		
I never eat health food.								25.				
	1	1.3	0	0.0	0	0.0	1	0	0	0.0		
I occasionally eat healthy										20.		
food.	7	9.3	2	25.0	0	0.0	0	0.0	1	0		

Table 59. Self-rated healthiness of diet by public transportation use

I sometimes eat healthy	2	26.								20.
food.	0	7	2	25.0	0	0.0	0	0.0	1	0
I mostly eat healthy food.	4	58.						75.		40.
	4	7	4	50.0	3	75.0	3	0	2	0
I only eat healthy food.										20.
	3	4.0	0	0.0	1	25.0	0	0.0	1	0

Figure 11. Relative proportions of self-rated healthiness of diet by public transportation use



The binarized versions of both variables were used because of the small cell sizes. A chi-square test for independence found no significant bivariate relationship. A binary logistic regression using *public transportation use* as a predictor variable alongside *age, number of children,* and *education level* also did not represent an improvement in fit over the null.

Next grocery store use and dollar store use were added as predictors because study participants differentiated between these two kinds of stores in terms of healthy options. This model was also nonsignificant. Thus, there was no evidence that *public transportation use* helps explain the variance in respondent's perceptions of how healthy their diets were, even when controlling for other relevant factors. There was therefore no support for Hypothesis 3.

Hypothesis 4: Respondents in the oldest age group will report more frequently needing to ask for help getting groceries.

The rationale for this hypothesis is that several participants emphasized elderly community members as a key group of people who would benefit from grocery delivery services. The crosstabs of *approximate age quartile* and *needing to ask for help getting groceries* are shown below in Table 60 and are visualized in Figure 12.

			Α	ppro	ximate	age	quarti	le	
		20-3	39	40-	59	60-	69	70+	
	N % N % N		Ν	%	Ν	%			
Needing to	Never	11	52.4	15	62.5	17	65.4	15	78.9
ask for	Once a month	2	9.5	5	20.8	5	19.2	0	0.0
help	A few times a								
getting	month	6	28.6	3	12.5	4	15.4	3	15.8
groceries	Once a week	1	4.8	0	0.0	0	0.0	1	5.3
	More than once a								
	week	1	4.8	1	4.2	0	0.0	0	0.0

Table 60. Needing to ask for help getting groceries by public transportation use

Figure 12. Relative proportions of needing to ask for help getting groceries by approximate age quartile



Figure 12 above actually suggests a decreasing rate of *needing to ask for help getting groceries* with increasing age, contrary to Hypothesis 4. An ordinal logistic regression using the continuous version of *age* as a predictor and the full ordinal variable *needing to ask for help getting groceries* as the response was a significantly better fit of the data compared with the null model (p=.04; Nagelkerke R²=.05) and found *age* to be a significant predictor of *needing to ask for help getting groceries* (p=.04).

Gender, number of children, and education level were next added to the model, which was also a significant improvement over the null (p=.003; Nagelkerke R²=.24). In this model, *age* was no longer a significant predictor, but *gender* was (p=.02). Even when controlling for *age*, education level, and number of children, men were significantly less likely to report needing to ask for help getting groceries than women were. This is a potentially important finding but should be considered with caution. On the one hand, future studies should investigate whether gender-based differences in income levels help to explain this pattern. On the other hand, gender norms around asking for help may have biased the results by shaping actual help-seeking behaviors and/or discouraging men to disclose their own help-seeking behaviors.

The binarized versions of *public transportation use* and *being unable to afford to* prepare a healthy meal were next added as additional predictors. The purpose of this was to control for *public transportation use* as a known barrier to food access as well as being unable to afford to prepare a healthy meal to try to tease out financial-related constraints from mobility-related constraints. This model also represented a significant improvement in fit (p<.001; Nagelkerke R²=.44). In this model, gender (p=.003), any public transportation use (p<.001), and ever being unable to afford to prepare a healthy *meal* (*p*=.04) were the significant predictors. When controlling for *education level*, number of children, and age, men were 3.7 times less likely than women to report higher levels of needing to ask for help getting groceries, with a confidence interval of -6.2 to -1.3. Those who ever used public transportation to get groceries were 2.5 times more likely to report higher levels of *needing to ask for help getting groceries*, with a confidence interval of 1.2 to 3.9. And those who had ever been unable to afford to prepare a healthy meal during a typical year were 1.2 times more likely to report higher levels of *needing to ask for help getting groceries*, with a confidence interval of 0.03 to 2.4.

These results indicate that the apparent negative relationship between *age* and *needing to ask for help getting groceries* can be explained by other factors, namely *gender, public transportation use,* and having ever been *unable to afford to prepare a healthy meal.* However, the possibility that advanced age causes certain members of our community to need to ask for help getting groceries cannot be ruled out. The patterns in the data may in fact have resulted in the limitations of this study's sampling

approach. Older people who experience challenges getting to the store may have had a harder time accessing the online version of the survey and/or may not have been able to answer the door during door-to-door recruitment. It is also important to keep in mind that needing to ask for help getting groceries is not synonymous with food insecurity. Moreover, the survey did not measure social connectedness, which is potentially important as those who feel more isolated may not report needing to ask for help because they did not feel there was anyone they could ask. Further investigations focusing on mobility-related food access barriers should use sampling strategies specifically designed to reach older residents with mobility challenges as well as include social connectedness measures.

Gardening

Survey Results

Focal variables

The quantitative sections of this report focus on the following three variables: 1) *interest in gardening*, 2) *interest in receiving gardening training*, 3) *interest in enrolling children in garden programs*, and 4) *willingness to participate in gardening activities*. The majority of respondents were at least somewhat interested in fruit and vegetable gardening (78 percent) as well as receiving gardening training (54 percent). Of the respondents to whom this question applied, 57 percent said they would be very likely to enroll their children in gardening programs. See Tables 61-64 below for the frequencies of the original and collapsed variables. Unsurprisingly, all focal variables except *interest in enrolling children in garden programs* (which had a large amount of missing data) were moderately and significantly correlated with each other (see Table 65 below).

For specific gardening-related activities, there was a consistent split of approximately 60:40 for interested and not interested respondents, respectively. Composting was the one exception, with only 45 percent of respondents expressing interest. Individual respondents varied in which activities they selected. The median number of interests selected was four, and the range was 0 (none) to 6 (all). An index of interest in participating in gardening activities was formed using the six individual items. See the accompanying methods report for details on the process of forming this index.

How interested or not interested are you in fruit and vegetable gardening at home or at a community garden?	N	%	Collapsed	Ν	%
Not at all interested	14	13.6	Low interest	17	16.5
Neither interested nor uninterested	3	2.9			
Somewhat interested	32	31.1	Mid interest	32	31.1
Very interested	46	44.7	High interest	46	44.7
Not sure	5	4.9	Missing	8	7.8
Missing	3	2.9			

Table 61. Interest in gardening

Table 62. Interest in receiving gardening training

Would you be interested in receiving training in fruit and vegetable gardening?	N	%
No	30	29.1
Yes	56	54.4
Not sure	13	12.6
Missing	4	3.9

Table 63. Interest in enrolling children in gardening programs

If you have children, how likely or unlikely are you to put your children into a gardening program?	N	%	Collapsed	N	%
Very unlikely	5	4.9	Low interest	8	7.8
Somewhat unlikely	1	1.0			
Neither likely nor unlikely	2	1.9			
Somewhat likely	15	14.6	Mid interest	15	14.6
Very likely	31	30.1	High	31	30.1
			interest		
Does not apply	45	43.7	Missing	49	47.6
I'm not sure	1	1.0			
Missing	3	2.9			

Table 64. Willingness to participate in gardening activities

If there was a community garden near you, which of the following (if any) would you be likely to do?	N	%	Index	Value
Take gardening workshops	61	59.2	Min	0
Plant food to feed your household	60	58.3	Max	6
Collaborate with family or neighbors to plant food to	62	60.2	Media	4
feed neighborhood households			n	3.51
Collect and deliver food waste for neighborhood	46	44.7	Mean	
composting				
Participate in community gardening events	61	59.2		
Contribute time to maintenance and upkeep of the	61	59.2		
garden				
Missing	3	2.9	Missin	2
			g	3

		Interest in gardening	Interest in enrolling children	Willingness to participate
Interest in	Cramer's V	.494***	.325	.561***
gardening training	Significance	<.001	.279	<.001
	Ν	84	48	86
Interest in	Gamma	.485		.263
enrolling children	Significance	.013		.149
in gardening programs	Ν	54		54
Willingness to	Gamma	.387**		
participate in	Significance	.001		
gardening activities	Ν	95		

Table 65. Correlation matrix of focal variables

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Demographics of respondents who were interested in fruit and vegetable gardening

Table 66 below shows the demographic frequencies of respondents with low, mid, and high levels of interest in gardening. For *age quartile, education level, race/ethnicity,* and *children in household,* the two bottom categories were collapsed due to small cell sizes. The only significant finding was that a high level of interest in gardening was less common among respondents identifying as Black or African American.

Table 66. Demographics of respondents who were interested in fruit and vegetable gardening

		Low		Mid		High		Pearson	
		interest		interest		interest		chi-square test	
		Ν	%	Ν	%	Ν	%	Sig.	Corr.
Gender	Woman	11	73.3	25	78.1	36	83.7	p=.651	G=202
	Man	4	26.7	7	21.9	7	16.3		
Adults in	1	5	35.7	11	35.5	20	45.5	p=.535	G=045
household	2	8	57.1	14	45.2	15	34.1		
	3-4	1	7.1	6	19.4	9	20.5		

%	Ν	%	Sig.	Corr.
20.5	13	31.0	p=.733	V=.122
27.3	10	23.8		
31.8	11	26.2		
20 5		100		

100

quartile	40-59	12	27.3	10	23.8		
	60-69	14	31.8	11	26.2		
	70+	9	20.5	8	19.0		
Education	HS or less	15	31.9	10	22.7	p=.666	V=.131
level	Beyond HS	14	29.8	17	38.6		
	College degree	11	23.4	12	27.3		
	Advanced	7	14.9	5	11.4		
	degree						
Race/	Black or	44	93.6	35	79.5	p=.047	<i>φ</i> =20
ethnicity	African						8*
	American ^a						
Children	0	25	59.5	24	53.3	p=.817	<i>V</i> =.068
in	1	8	19.0	9	20.0		
household	2-5	9	21.4	12	26.7		

^a Other race/ethnicity categories are not included because cell sizes were too small

Ν

9

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

20-39

Age

Demographics of respondents who were interested in receiving gardening training

There were no significant demographic patterns in *interest in receiving gardening* training, as shown in Table 67 below. However, children in household was on the borderline, so the effect of number of children is explored in the 'Hypothesis Testing" section of this report.

Table 67. Demographics of respondents who were interested in receiving gardening training

		Not		Inter	ested	Pearson chi-square		
		interes	ted			test		
		Ν	%	Ν	%	Sig.	Corr.	
Gender	Woman	22	78.6	43	79.6	p=.911	<i>φ</i> =012	
	Man	6	21.4	11	20.4			
Age	20-39	3	11.1	17	33.3	p=.177	<i>V</i> =.251	
quartile	40-59	8	29.6	13	25.5			
	60-69	8	29.6	12	23.5			
	70+	8	29.6	9	17.6			



Education	HS or less	8	28.6	16	29.1	<i>p</i> =1.000	<i>V</i> =.012
level	Beyond HS	10	35.7	19	34.5		
	College degree	6	21.4	12	21.8		
	Advanced	4	14.3	8	14.5		
	degree		_		-		
Race/	Black or African	26	92.9	46	83.6	<i>p</i> =.407 ^b	<i>φ</i> =129
ethnicity	American ^a						
Adults in	1	11	40.7	21	38.9	<i>p</i> =.685	<i>V</i> =.097
household	2	13	48.1	23	42.6		
	3-4	3	11.1	10	18.5		
Children in	0	19	73.1	26	49.1	<i>p</i> =.093	<i>V</i> =.245
household	1	2	7.7	13	24.5		
	2-5	5	19.2	14	26.4		

^a Other race/ethnicity categories are not included because cell sizes were too small

^b Reported with Yates continuity correction

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Demographics of respondents who were interested in enrolling children in garden programs

As shown in Table 68 below, there were no significant demographic patterns in interest in enrolling children in gardening programs among those to whom this question applied. Due to small cell sizes because of the large amount of missing data for this item, the low and mid interest categories were collapsed. Cell sizes were still too small to reliably report the results of chi-square tests using age quartile and education level, but both values were much larger than .05.

Table 68. Demographics of respondents who were interested in enrolling children in garden programs

		Low-	mid ost	High i	nterest	Pearson chi-square	
		N	esi %	N	%	Sid	Corr
-			70	11	70	Jig.	0011.
Gender	Woman	15 71.4 6 28.6		25	80.6	p=.661°	φ =107
	Man			6	19.4		
Age	20-39	6	28.6	14	46.7	<i>р</i> = ^с	<i>V</i> =.269
quartile	40-59	7	33.3	6	20.0		
	60-69	7	33.3	6	20.0		
	70+	1	4.8	4	13.3		

Education	HS or less	8	38.1	6	19.4	<i>р</i> = ^с	V=.220
level	Beyond HS	6	28.6	13	41.9		
	College degree	4	19.0	8	25.8		
	Advanced	3	14.3	4	12.9		
	degree						
Race/	Black or African	18	85.7	27	87.1	<i>p</i> =1.000	<i>φ</i> =.020
ethnicity	American ^a					b	
Adults in	1	6	30.0	13	41.9	p=.678	<i>V</i> =.123
household	2	9	45.0	11	35.5		
	3-4	5	25.0	7	2.6		

^a Other race/ethnicity categories are not included because cell sizes were too small

^b Reported with Yates continuity correction

^c Cell sizes were too small to rely on results of chi-square

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Demographics of respondents who were willing to participate in gardening activities

The only demographic variable significantly related to *willingness to participate in* gardening activities was approximate age quartile (p=.014). The two groups that were significantly different from each other were the youngest and the oldest quartiles, which expressed the highest and lowest levels of willingness to participate in gardening activities, respectively (see Figure 13 below). *Children in the household* was on the borderline (p=.057). A bar chart of the collapsed variable suggested that the presence or absence of children rather than the number of children may have made a difference. A Mann-Whitney U test using the binarized *children in the household* variable was significant (p=.018). Respondents with children in their households tended to have higher levels of *willingness to participate in gardening activities* (see Figure 14).

For the purposes of reporting the frequencies shown in Table 69 below, the continuous index variable was collapsed into quartiles. However, the significance tests use the continuous version. As the distributions of the index across all demographic variables violated the assumption of normality, the parametric corollaries of t-test and ANOVA were used.

		Q1		Q2		Q3		Q4		Nonparametric significance test	
		Ν	%	Ν	%	Ν	%	Ν	%	Test	Sig.
Gender	Woman	1	83.	2	82.	1	85.	2	71.	Mann-Whit	p=.357
		0	3	4	8	8	7	3	9	ney U	
	Man	2	16.	5	17.	3	14.	9	28.		
			7		2		3		1		
Age	20-39	1	10.	2	6.9	8	40.	1	34.	Kruskal-Wa	p=014*
quartile			0				0	1	4	llis	
	40-59	4	40.	1	34.	4	20.	6	18.		
			0	0	5		0		8		
	60-69	3	30.	7	24.	5	25.	1	34.		
			0		1		0	1	4		
	70+	2	20.	1	34.	3	15.	4	12.		
			0	0	5		0		5		
Education	HS or	3	25.	9	30.	3	14.	1	36.	Kruskal-Wa	p=.303
level	less		0		0		3	2	4	llis	
	Beyond	4	33.	9	30.	1	47.	1	30.		
	HS		3	_	0	0	6	0	3		
	College	2	16.	7	23.	5	23.	9	27.		
	degree		7	_	3	_	8	_	3		
	Advance	3	25.	5	16.	3	14.	2	6.1		
	d degree	_	0	_	7	_	3	-			
Race/	Black or	1	91.	2	86.	1	90.	2	78.	Mann-Whit	p=.327
ethnicity	African	1	7	5	2	9	5	6	8	ney U	
	american ª										
Adults in	1	2	18.	1	55.	1	47.	9	27.	Kruskal-	p=.667
household			2	6	2	0	6		3	Wallis	
	2	7	63.	7	24.	9	42.	1	48.		
			6		1		9	6	5		
	3-4	2	18.	6	20.	2	9.5	8	24.		
			2		7				2		
Children in	No	1	90.	2	66.	7	35.	1	48.	Mann-Whit	p=.018*
household		0	9	0	7		0	5	4	ney U	
	Yes	1	9.1	1	33.	1	65.	1	51.		
				0	4	3	0	6	6		

Table 69. Demographics of respondents who were willing to participate in garden activities

^{*a*} Other race/ethnicity categories are not included because cell sizes were too small

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level



Figure 13. Boxplots of willingness to participate in garden activities by approximate age quartile

Figure 14. Pyramid frequency chart of willingness to participate in gardening activities by children in the household



Grace Grows Community Food Planning Technical Report 🦻

Qualitative results

Ways to contribute. Of the 53 survey respondents who made comments about gardening, 28 listed ways they could, do, or have contributed to gardening efforts. Most of these comments were in response to the following question: "Of the ideas you listed for the previous question [ideas to improve access to healthy food in your community], what skills, knowledge, or other resources could you provide to make sure one of these ideas is successful?"

Sharing knowledge and skills was the most mentioned way to contribute, mentioned by eight respondents. A few of these respondents further specified that they, for example, would like to help show young people how to break ground or incorporate gardening into their teaching. One respondent shared that "I go back to my old teachers that I had when I was in middle school where we used to garden at Lincoln Middle to get the ideas I had there and bring it out here in the world" (P049).

Five respondents mentioned contributing supplies or resources to gardening efforts, such as seeds, donations, and garden starter kits. Four suggested they could help establish a new community garden, and four discussed growing food at home to feed their households and/or to share with their neighbors. Other possibilities mentioned included promoting and advocating for community gardens, distributing the food, cooking with the food, purchasing the food, planting and harvesting, providing manual labor, transporting people to the garden, contacting community members, and finding employment at a garden.

Gardening as a solution. As indicated above, the survey asked respondents to provide three ideas to improve access to healthy food in their community. 21 respondents suggested community gardening as a solution. Many just listed gardens generally, but several provided further details. One respondent suggested "community gardens that offer produce that is free to community members that do not have the income to afford produce at grocery stores, or that may run out of income during certain points of the month" (P035). Two also suggested edible landscaping initiatives such as "grafting fruit trees onto ornamental trees in public spaces" (P044).

Training and youth programming. Ten respondents indicated that gardening training will be important, including topics such as what grows in Florida, when to plant, and how to establish a garden. In addition, ten respondents focused on the need for gardening programming specifically for youth. A couple respondents mentioned the impact that participating in youth gardening programming had on them, and a few advocated reincorporating gardening and agriculture into the public school system. "The part that I think is really missing," said one respondent, "is that there's no
agriculture being taught in the schools and there's no home economics being taught in the schools. So if you're not getting it at home, this is where I would think that students turning into adults would have to get their foundation. Because skills in eating and gardening are established in early childhood" (P089). Several of respondents indeed drew from their own or their forebears' early experiences with gardening while underlining the importance of having access to a garden.

Barriers. 11 respondents indicated barriers that have or could prevent them or their neighbors from gardening. Time was the most commonly mentioned barrier. Other barriers included lack of knowledge about existing gardens, physical ability status, transportation challenges, not living in a house, and having a dog that would dig up a garden. Two respondents also mentioned factors specific to the context of their local area, such as the discovery of a snake in an existing garden that frightened community members away from working in it.

Existing gardens. Ten respondents referenced existing gardens that they knew of or had experience with. Several of these were school gardens, including at Howard Bishop Middle School, and several were respondents' home gardens. Other specific gardens mentioned included Cone Park Library Garden and Grace Grows. Of one of the school gardens, a respondent shared that "It is the coolest thing when I take a student to the garden and they lean over and see a potato and pick it up because they think potatoes come from Publix. They don't know where our food comes from and I just think that is really important" (P021).

Focus Group and Interview Results

Barriers. Nine participants described barriers to gardening that they or others face. Lack of knowledge was the most commonly mentioned, with four participants specifying a lack of education or experience with growing food and another four participants specifying a lack of awareness of what gardens, spaces, or gardening resources exist. "They have a community garden [at Cone Park Library]," said one participant, "but I never really see anyone using it, so maybe there's just not enough people knowing about it" (FG3.6). Another participant shared:

> I didn't grow up with gardens, and people having gardens, and so I don't know what to do. I want to have a garden. I want to grow stuff. I do have the desire. I do want to get my hands in the earth. But I don't know how to do it, and I need help. And I'm sure a lot of people out there are like that too, where if they knew what to do, they might actually be able to have their own little garden in their own little apartment complex, or in

their yard or wherever, that people can share, and they just make enough for two or three families, but they don't know how to do it. (FG1.3)

Other barriers included not having the time or energy to dedicate to a garden, not having access to gardens, and the difficulties of keeping plants alive in available gardening spaces. In particular, when a heavy investment of time and effort fails to return the anticipated benefits, this is especially discouraging. "It's just one of those hard things," one participant explained, "that you've got your time investment, you have your emotional investment and hopes, and then all of that you have to reconcile with when that first cold snap comes through and then you've got to basically figure out how to start again" (FG2.2).

Training. The barriers described above underlined the need for extensive training opportunities and resources, as did seven participants themselves. Several were enthusiastic about the possibility of future opportunities for training, and a couple expressed an eagerness to participate. Suggestions for how to go about offering trainings included working with a community for a year so they can become independent gardeners as well as having someone from IFAS work with community gardens and revive initiatives that have since been discontinued. Two participants also emphasized that programs must be promoted strategically. One explained, "this needs to be marketed in a certain way to where it's hip, it's cool, it's the new thing, it's the new wave, and it's the thing to do (FG3.4)."

Youth programming. Seven participants stressed the importance of offering gardening programs specifically designed for children and youth. A few participants suggested this would be fruitful because children would be more impressionable than adults. A few participants explained that they felt children would be more invested in and enthusiastic about bringing home foods they helped to grow or harvest. In one case, a respondent spoke from their own childhood experiences with this kind of impact, sharing that "I recall going out to the gardens and helping [my older relatives] pick some of the items. [...] I can recall certain foods. I liked white acre peas, or greens, or certain things like that. I think being a part of the process [...] those memories stick out to me" (FG1.4).

Still, the potential of youth and adult programs is not mutually exclusive. One participant suggested that programs through the schools could be an entryway for parents to become involved in gardening as well. Another participant also illustrated how offering youth programming without also providing resource for adults can create a gap in youth's gardening experiences:

I can tell you this: my daughter, who's 11, she really enjoys it. She had the experience when she was a Girl Scout and 4H1 clubs that she was involved with when she was a little younger, and she really enjoys it, but I don't have any access to know anybody, to get her involved with somebody to... I guess I could probably do something in my backyard. With this type of conversation, it brings up a lot for me to kind of step up things, because she does really enjoy doing that. But yeah, I don't have access to anybody to show me where to go, how to start, what to do. (FG2.5)

As with the general conversation about training, a few participants emphasized that youth programs would likewise need to be presented strategically to hold people's attention. One participant gave a specific illustration:

If you want to catch my interest—and I am a school-age kid—and you have me grow a cucumber, and it's the wrong time to grow it or my cucumber doesn't grow well, I'm automatically just going to disengage. I'm not going to be interested. So, the people who teach the program, they should really be able to reach the crowd that they're teaching. It doesn't matter if you're white, Black, young, or old. If you're going to teach a specific kind of person, you need to really be able to speak their language and make it exciting. (FG3.4)

"He's right; it's all in the approach," added another participant. "Whoever puts programs like this together for children has to empower them and not necessarily patronize or condescend to them: 'Hi, we're here to save you to save yourself.' But this is life-saving learning. So [...] it's got to be trendy, it's got to look good, the branding of it" (FG2.2).

Existing gardens. Six participants referenced existing gardens that they knew of or had experience with. These included the Cone Park Library Garden, the Greater Duval Community Garden, the garden at Caring and Sharing Learning School, the Fifth Avenue Community Garden, and the NE 31st Avenue Community Garden. Participants also spoke about their own gardens and the home gardens of their neighbors and/or church community members. One participant listed these gardens as something that they saw as special about their community: "There are a lot of families in my community, and they are very helpful and supportive of one another. In some cases, there are some of my neighbors who have gardens. And it's a close-knit community, and people share a lot of their resources with others" (FG1.4).

Benefits. Five participants as well as one of the focus group organizers not on the project team listed numerous specific benefits of gardening at home or in community gardens. These included the following:

- Sense of pride for children picking food to take home
- Intergenerational engagement
- Introducing children to new vegetables
- Gaining an important survival skill
- Empowerment to provide needed resources to the community
- Empowerment to advocate for additional positive changes to the food system
- Sustainability
- Outdoor spaces for children to play and socialize
- Job creation
- Places to build community and socialize with people you might not normally see
- Enjoyment of beauty
- Therapeutic benefits
- Providing fresh foods for special occasions
- Source of joy

Limitations of gardens as a solution. Although focus group participants overwhelmingly acknowledged the benefits of and/or need for community gardening, a few emphasized that community gardens alone are insufficient to address food insecurity in their community. The following quotes illustrate this tension between supporting the idea of community gardening and concerns about their efficacy on a large enough scale to serve the community's needs:

I love these green gardens we have all over the hood. But hell, if I can't go on in, and grow nothing, and actually pick it, and cultivate it, and eat it, then what are we doing? (FG2.1)

My husband put all this time and energy into the soil. And that's not even cheap, so imagine somebody that actually needs to survive off gardening, or off of what they grow. So, we put lots of soil into it, he put a lot of time. And then he watched all those tomatoes—he was so proud; those tomatoes got really high. But also, there's no diversity. All he was coming out with was tomatoes, and they were this little [makes a circle with the thumb and forefinger of her right hand]. So, folks weren't really getting fed off of that. (FG2.2)

One of the focus groups featured a fruitful debate whereby two different perspectives regarding gardens surfaced, featured in this excerpt from the transcript:

I don't have access to a garden. I don't know anyone who goes to a garden and gets food. And I just want to say this: Gardens can be sustainable for communities and neighborhoods, gardens give neighborhoods a sense of empowerment to be able to provide a resource that is needed in their community. But we need to take a look at the times that we are living in. And we are living in a time of convenience. We are living in neighborhoods where we have households where there are single mothers and single dads and families together that are working, who do not have time to come home and work in a garden. Nevertheless do not have time to come home and go to a garden and pick fresh fruits and vegetables and bring back to their home. And I'm going to say this: I don't want to do that. I like convenience, like everyone else. And just like there are accessible grocery stores in other neighborhoods where they can walk to, ride a bike to, take the bus to, I would like to have the convenience of doing that also. I have nothing against gardens. I think they are beautiful, and they can be therapeutic, too. But it's not a lot of people nowadays that are going to go and work in a garden or go to a garden and get food. And so I think that's something that we really need to get real with, instead of just looking at the, "Oh, we need a garden!" It sounds nice, it really does. It sounds nice. But a lot of people who need food and who need to have these healthy choices, we have to really think about, if we have this garden, are they going to come to this garden? I think that's something that we really need to sit down and look at that. It

would help. But how would that help our community? And that's where I'm at. How would that really help the communities of today? That's just where I'm at. (FG1:1)

I respectfully disagree, and I'm going to tell you why. God bless you and your love for convenience. However, I think it would be a great idea, a great draw for mothers with children. So Mama might not want to get out there to a garden, but I bet you those kids do. I bet you they want to get out of the house and run and play and socialize and learn and pick the food that they're going to eat and take it home, and feel a sense of pride that they helped bring something home. Absolutely. I'm a strong advocate for community gardens. For the people that like convenience, it just might not be your thing. Maybe you can help deliver some of those resources, some of those things that come out of the food garden. So actually, hands in the dirt work might not be for you. And that's cool, and that's okay. I'm not knocking that. Please don't misunderstand me. But somebody is going to love that idea. Me personally, I absolutely would. I would actually get out there, me and my husband. Let me cut these greens, I'm going to take them right home. (FG1.5)

The resolution to this discussion was that both perspectives were valid and highlighted two different but important needs that should be addressed. In other words, there is a need for community gardens *in addition to*—not as a replacement for—solutions that expand the range of healthy and affordable retail options in the area.

Ways to contribute. A few focus group participants also listed specific ways community members could contribute to community gardening efforts. A couple of people pointed out that people can or do sell or share the harvest from their own gardens with colleagues, neighbors, or church fellows. A couple participants also emphasized that essential characteristics of those leading future efforts include patience and commitment. As one participant explained,

Whoever does a program like this has to have the true patience of a farmer. Of a gardener. Because, you're going to sow a seed, but it's going to take a while to really set in. So, whoever organizes something like this is going to have to have that patience and that understanding that this is not going to be an overnight thing. Or else—and we've all seen community gardens throughout this community that nine months later are abandoned. So, if it really is to be a lasting success, it's going to have to be a long-haul commitment. (FG2.2)

Hypothesis Testing

The following hypothesis were formed based on the qualitative results discussed above:

- 1. Food access challenges will be related to willingness to participate in gardening activities.
- 2. People who use public transportation to get groceries will be less willing to participate in gardening activities.
- 3. Children in the household will affect the relationship between interest in gardening and willingness to garden.

Hypothesis 1: Food access challenges will be related to willingness to participate in gardening activities.

The rationale for this hypothesis is that respondents listed time and access challenges as barriers to gardening. At the same time, perhaps those who have trouble getting

food might see gardening as a way to fill in the gaps. Therefore, this hypothesis does not suggest the direction of association, just that there will be a relationship. The crosstabs of both variables in guartile format are shown below in Table 70 and are visualized in Figure 15. Please see the associated methods report for details on how these two composite measures were constructed.

Table 70. Willingness to participate in gardening quartile by food access challenge quartile

	١	Willing	ness t	o partio activi	ipate ties	in gar	deni	ng	
		(Q1	(Q2	(Q3		Q4
		N	%	Ν	%	Ν	%	Ν	%
Food access	Q1	6	42.9	8	28.6	8	42.1	10	31.3
challenge scale	Q2	2	14.3	6	21.4	2	10.5	8	25.0
	Q3	3	21.4	6	21.4	2	10.5	6	18.8
	Q4	3	21.4	8	28.6	7	36.8	8	25.0

Figure 15. Relative proportions of willingness to participate in gardening quartile by food access challenge quartile



As Figure 15 indicates, there was no clear, direct relationship between the two variables. An ordinal logistic regression using food access challenge scale as the sole predictor of willingness to participate in gardening activities quartile was nonsignificant.

Next, all demographic variables were added to determine whether they affected this relationship. There was a quasi-complete separation in the data that was resolved by removing *Latinx*. The resulting model was a significantly better fit of the data than a model using no predictors (p=.03; Nagelkerke R²=.276). In this model, the significant predictors were having more children in the household (p=.025), having up to a high school education (p=.04), and having a college degree but not higher (p=.012). The *food access challenge scale* was not significant. Thus, there was insufficient evidence to support Hypothesis 1.

Hypothesis 2: People who use public transportation to get groceries will be less willing to participate in gardening activities

The rationale for this hypothesis was that a participant listed transportation challenges as a barrier to gardening, and these data have indicated that having to rely on public transportation to get food is difficult (see the associated transportation report). The crosstabs of *willingness to participate in gardening activities* in quartile format according to *use of public transportation to get groceries* are shown below in Table 71 and are visualized in Figure 16 using the binarized version of *public transportation use*.

			Nilling	ness t	o partic activi	ipate ties	in gar	deniı	ıg
		() 1	() 2	(Ç 3	(Q4
		Ν	%	Ν	%	Ν	%	Ν	%
Use of public	Never	12	85.7	21	67.7	17	81.0	27	81.8
transportation	Occasionally	0	0.0	4	12.9	2	9.5	3	9.1
to get groceries	Sometimes	0	0.0	3	9.7	1	4.8	0	0.0
	Often	0	0.0	0	0.0	1	4.8	3	9.1
	Always	2	14.3	3	9.7	0	0.0	0	0.0

Table 71. Willingness to participate in gardening activities quartile by use of publictransportation



Figure 16. Boxplots of willingness to participate in gardening activities according to use or nonuse of public transportation

A Kruskal-Wallis test using the ordinal format of *public transportation use* as the independent variable and the continuous format of the *willingness to participate in gardening activities* index fell just short of significance (p=.058). Next, the demographic variables were added to an ordinal logistic regression using the quartiles of *willingness to participate in gardening activities* as the response variable. The model violated the assumption of proportional odds. Removing *adults in household* resolved this issue; however, the *children in household* variable now violated the assumption of linearity with the log-odds, so the binarized format of *children in the household* was used instead. The resulting model was as significantly improved fit of the data over the null model (p<.001; Nagelkerke R²=.423). In this model, there was some evidence to support Hypothesis 2 in that those who reported always using public transportation to get groceries had significantly lower levels of willingness to participate in gardening activities than those who 'never' (p=.011) or 'often' (p=.008). 'Occasionally' fell just short of significance, compared to 'always' (p=.054). The other significant predictors were identifying as white (p=.04) and having children in the household (p=.004).

Hypothesis 3: Children in the household will affect the relationship between interest in gardening and willingness to garden.

This hypothesis was formed in response to the following quote from a focus group participant: "So Mama might not want to get out there to a garden, but I bet you those kids do. I bet you they want to get out of the house and run and play and socialize and

learn and pick the food that they're going to eat and take it home and feel a sense of pride that they helped bring something home." The crosstabs of *willingness to participate in gardening activities* in quartile format according to *children in the household* and *interest in gardening* are shown below in Table 72 and are visualized in Figure 17.

Table 72. Willingness to participate in gardening activities by children in the household and interest in gardening

Interest in fruit and		Willingness to participate in gardening activities										
		Ç	Q1		Q2		Q3	Q4				
vegetable gardening		Ν	%	Ν	%	Ν	%	Ν	%			
No	Low interest	4	3.9	5	4.9	0	0.0	1	1.0			
children	Mid interest	3	2.9	9	8.7	1	1.0	2	1.9			
	High interest	3	2.9	3	2.9	6	5.8	12	11.7			
Children	Low interest	0	0.0	0	0.0	0	0.0	3	2.9			
	Mid interest	0	0.0	4	3.9	7	6.8	3	2.9			
	High interest	1	1.0	4	3.9	6	5.8	10	9.7			

Figure 17. Willingness to participate in gardening activities by children in the household and interest in gardening



Willingness to participate in gardening activities index □Q1 □Q2 □Q3 □Q4

A loglinear analysis was run using *interest in gardening, children in household,* and *willingness to participate in gardening activities.* To increase statistical power due to small cell sizes, binarized versions of each variable were used, as shown below in Table 73 and visualized in Figure 18:

Variable	Binary categories	Collapsed values	Ν	%
Interest in gardening	Low-mid	Not at all interested, neither interested nor uninterested, somewhat interested	49	47.6
	High	Very interested	46	44.7
Children in	No	0	52	50.5
household	Yes	1-5	40	38.8
Willingness	Low	Quartiles 1-2	46	44.7
to participate	High	Quartiles 3-4	54	52.4

Table 73. Binarized versions of interest in gardening, children in household, and willingness to participate in gardening activities

Figure 18. Willingness to participate in gardening activities by interest in gardening and children in the household (all binarized)



In the resulting model, the following effects were significant: *interest* * *willingness* (p<.001), *children* * *willingness* (p=.003), and *interest* * *children* * *willingness* (p=.007). The effect *children* * *interest* was not significant. These results suggest that having children in the household did not affect interest in gardening but did affect willingness to participate in gardening activities. Furthermore, while both interest in gardening and children in the household affected willingness to participate in gardening independently, their combined influence is also important. As shown above in Figure 18, even among respondents who reported lower levels of interest in gardening, those with children in their households still reported higher levels of willingness to participate in gardening. Thus, there is evidence to support Hypothesis 3.

Education and Nutrition

Survey Results

Defining healthy food.

The survey asked respondents what healthy food meant to them. Some respondents answered from the perspective of describing its significance in their lives, and others listed certain foods or characteristics of foods that made them healthy. The latter set of responses are synthesized here to provide context for what people had in mind when talking about healthy foods. Some responses are also included from answers to the question about how a person's diet impacts their health, as some people further elaborated on their definitions of healthy food while answering that question. The Appendix has further details on how many respondents mentioned each type or characteristic.

About half of respondents listed produce, fruits, vegetables, or more specific foods within those groups. Less-often mentioned were meat and grains, followed by other categories that only a few people listed. About a third of respondents listed things to avoid or moderate. Most commonly mentioned among these was sugar. Other things listed included additives, meats (especially red meats), fat, salt, fast food, and fried foods. About a third of respondents listed aspects of food production that improved the healthiness of foods. Most common among these aspects was fresh, followed by unprocessed and organic. Slightly less than a third of respondents talked about consumption practices such as incorporating certain beverages, cooking foods using particular methods, and ensuring the diet is varied and balanced. Finally, about a fifth of respondents described healthy foods as being nutritious. Many respondents listed aspects in multiple of these categories—food groups, things to avoid or moderate, food production practices, consumption practices, and nutritional value—as in the examples below:

Natural foods, non-processed, no added sugars or salt, fresh produce, well balanced in nutritional content. (P003)

Food with a high nutritional quality or value to the body, like fruits, grains, vegetables, nuts. (P011)

Produce without chemicals, not very processed, like fruits and vegetables, plants that are organic. And a diverse diet. (P024)

Healthy food means to me: vegetables, fruits, foods that are good for your digestive system, foods that are low in calories and that are helpful and good for your body. (P046)

Food that doesn't—everything may harm you one way or the other—but I try to incorporate fruits and vegetables, non-sweet things... low-fat food, sugar-free foods and drinks, no sodas. (P085)

Diet's impact on health.

The survey also asked respondents how they saw a person's diet impacting their overall health. Their responses are synthesized here along with some of the responses from the *meaning of healthy food* question where respondents talked about its significance. Most respondents spoke about one or more dimensions of health. Most commonly, they talked about the impact of diet on health conditions such as diabetes and high blood pressure. Other dimensions they spoke about included bodyweight, energy, the functioning of body systems, physical health generally, longevity, and mental and emotional health. Many people talked about multiple dimensions of health as in the examples below:

I don't have any numbers to measure this, but with my son I can tell the way he is acting if he has too much sugar. I know that eating too much processed food and unhealthy your mood suffers. When I eat kale... which I eat a lot of kale... and make my smoothies, it really impacts my mood and energy and our sleep as well. (P009)

We need good foods for our bodies to repair. We can't create a healthy body out of junk. Our foods impact our blood sugar, BMI, and every system in our body. Gut health. (P022)

Mood. Endurance. Energy for the week. Your immune system and overall resilience. If people had a better diet I think their medical and mental health would be greatly improved. (P044)

It greatly impacts their overall health. Affects high blood pressure, diabetes, heart disease, etc. WIthout a healthy diet, your ability to move, exercise, or work is affected. (P052)

About half of respondents spoke about the importance of a healthy diet, with about a quarter stating that a person's diet has a big impact on their overall health. A smaller

number of respondents spoke about behaviors they saw as unhealthy, such as eating junk foods. Nine respondents said they didn't know how a person's diet impacted their overall health.

Educational needs and solutions.

Gardening (14 respondents), healthy eating (12 respondents), cooking (8 respondents), agriculture (4 respondents), and using existing resources (4 respondents) were topics that respondents suggested for education efforts. Please see the associated gardening report for a discussion of gardening-related education and training needs. Some respondents specified particular audiences they felt should receive education and/or suggested sites for delivering it. These suggestions are summarized in Table 74 below.

	Healthy eating	Cooking	Agriculture	Using resources
Audiences				
Kids	4	1		1
Families	5	1		
Parents	2			2
Students		2	4	
Youth		2	3	
Seniors	1	1		
Low-income	2			
SNAP/WIC	1			
recipients				
Sites				
Community centers	1	2		
Schools		3	4	
Online		2		
Food retailers	2			

Table 74. Summary educational needs and solutions suggested by surveyrespondents

Numbers indicate the number of survey respondents who suggested the type of education

Healthy eating. Suggested models for education on healthy eating included incorporating it into a mobile market, teaching classes in community centers, helping people shop for healthy choices in grocery stores, and offering a summer enrichment

program for kids. "The community needs to be educated, especially low income households," said one survey respondent. "They need to know the importance of healthy food and the risks associated with the obesity crises we have, which I am a part of the problem too. We need to educate our kids about healthy food choices" (P008).

Cooking. Models for teaching cooking included incorporating it into school-based programming such as home economics, teaching cooking classes in community kitchens, and offering video-based cooking lessons. "I think our senior citizen communities (Senior Rec Centers) are a wonderful resource we are not using," said a survey respondent. "We should be teaching them to can and to cook. We could do this over Zoom meetings to teach them. Our food waste is a huge issue and this could be a way to mitigate that waste" (P021).

Agriculture. Those who listed agriculture as a topic advocated for school-based programs such as elective classes or Future Farmers of America. "The School Board would need to bring back electives that teach agriculture, cooking, vocational skills," said a survey respondent. "The youth are not interested in that stuff because they are not exposed to it. We need to teach them early so they can support themselves" (P048).

Using resources. Two of the four comments about teaching people to use resources were general comments. One other respondent suggested training people to order food online and another recommended bringing back extension programs to help food assistance recipients use their supplements. "We need community leaders to talk to parents and kids about what is accessible for everyone," said one respondent. "We need people going to the community to educate about resources" (P078).

Focus Group and Interview Results

The three topics of education that focus group participants discussed were cooking, healthy eating, and gardening. Please see the associated gardening report for a discussion on this topic. Suggestions regarding the other two topics are summarized in Table 75 below and discussed in further detail in this section.

	Healthy eating	Cooking
Audiences		
Kids	4	1
Families	1	1
Parents	4	3
Students	1	2
Youth		3
Adults	3	2
Sites		
Community centers	1	3
Schools	2	2
Online	2	1

Table 75. Summary educational needs and solutions suggested by focus group participants

Cooking. Models of culinary education that focus group participants suggested included culinary programs and/or home economics in schools, cooking demonstrations that allow people to sample the dishes, and community meetings for parents. Others included online coaching, offering programming through IFAS, and collaborating with Carl Watts, the local chef for Underground Kitchen. One participant gave high praise for a program that combined child care, nutrition education, and cooking lessons. In this program, the children were fed a weeknight dinner, and parents went home with free groceries. Another participant shared:

The first thing that comes to mind is cooking classes, especially with kids. I think starting at the younger age, obviously as they grow up, you embed those things into them. I think cooking classes for younger kids to teach them what foods are healthy, especially the different ingredients and different alternatives for those unhealthy ingredients. And then, the same thing for some adults. I feel like some adults are brought up to the fact of what their parents or grandparents were cooking. So that's all they know. (FG3.6)

A few focus group respondents shared stories of elder relatives teaching younger relatives to cook traditional family meals; this suggests that there may be opportunities for intergenerational culinary capacity-building that centers these personal relationships and traditions.

Numbers indicate the number of participants who suggested the type of education

Healthy eating. There was some uncertainty among focus group participants about how exactly to provide education about healthy eating. In a few cases, participants described the need for it and then posed the guestion of how exactly it would be possible to accomplish goals such as enticing children to try new foods or convincing adults of the importance of healthy eating. Models that people did suggest included incorporating nutrition education into cooking classes, sharing information about healthy choices through smartphone apps or YouTube videos, feeding people healthy foods to show them how good it can taste, and actively involving children in school gardening to increase their acceptance of fruits and vegetables. "I definitely think it has to start with children," said the interview participant. "That's the easiest connection to make is within the school systems of talking to kids about healthy eating, because they're going to be more likely to bring that home." Many focus group participants suggested that focusing education efforts on children would have the highest likelihood of long-term success. However, a couple of participants indicated that it is also possible to successfully provide education for adults. One participant told a story about learning from a nutrition-focused peer that tilapia was not the healthiest choice of fish. Another participant shared an example of a successful online community facilitated by a lifestyle coach who she knew through her sorority:

> She was smart with her marketing and her promotions. And she put together these really nice, aesthetically-pleasing MailChimp emails [...] And the tribe is called Sugar to Snatch. So it had a catchy name. You know, how to go from being full of sugar to what we Black women refer to as 'snatch,' when you have your body right, you know? So she is a great example of what [another focus group participant] was referring to. Make it cool, you know? When she finally got us in her virtual chatroom, she let us know this is basically the revolutionary act of self-care. That's it. This is a survival skill. We're gonna save lives. All of us women bought in, because it looked good, it sounded good, and then when we started using the recipes, it tasted good. (FG2.2)

Appendix A

i) Methodology: Survey Instrument with Variable Names

This survey is being conducted by the Grace Grows Community Food Planning Project and the Department of Agricultural Education and Communication at the University of Florida Institute of Food and Agricultural Sciences (UF/IFAS). Our goal is to learn about your views concerning healthy food in your community. Your responses will help us understand what we can do to support local efforts to improve food access in the community.

The survey will take approximately 30-40 minutes to complete. Your opinion is very important to us and we appreciate your time. We will ask you the questions and write down your responses directly to a computer file. No identifying information about you will be connected to your answers and you will remain anonymous. The conversation will not be audio or video recorded.

Your participation in this survey is voluntary and there is no penalty for not participating. You may exit the survey at any time, and you do not have to answer any question you do not wish to answer.

Your participation will be kept confidential to the extent provided by law. Your name will not be used in any report. We will only use your answers after they have been combined with the other respondents' answers. If we use quotes or paraphrases in any reports, we will strive to exclude any information that could identify you or others.

We believe that there are no risks to you from participating in this survey. There also are no direct benefits to you for participating. While the information you provide us today may benefit you indirectly in the future by helping us develop better education and outreach materials, you will not be compensated for you participation in this survey.

If you have any questions or comments about this survey, please call Paul Monaghan at 352-294-1993 or send an email to paulf@ufl.edu. If you have questions about your rights, contact the UFIRB office, P.O. Box 100173, University of Florida, Gainesville, FL 32611-0173. We hope that you enjoy completing the questionnaire.

Q1. Do you consent to completing this survey?

Q2. Are you completing this survey independently or with the help of an interviewer?

• I am completing this survey independently

• I am completing this survey with an interviewer

Q2.1. Name of interviewer

Q2.2. Name of data recorder

Food Access

Description. In these first questions we will ask you about food shopping, transportation, and any difficulties with obtaining food.

Q3.1. In the last month, where did you shop for food MOST OFTEN? This could be a farmer's market, grocery store, dollar store, etc. [Shop1_Name]

How many times did you shop there in the last month? [Shop1 Freq] What do you like about shopping there? [Shop1 Like]

Have you ever avoided shopping there because it was too difficult?

[Shop1_Avoid]

If so, what made it too difficult? [Shop1_Diff]

Q3.2. In the last month, where did you shop for food SECOND MOST OFTEN? This could be a farmer's market, grocery store, dollar store, etc. [Shop2 Name]

How many times did you shop there in the last month? [Shop2 Freq] What do you like about shopping there? [Shop2 Like]

Have you ever avoided shopping there because it was too difficult? [Shop2_Avoid]

If so, what made it too difficult? [Shop2_Diff]

Q3.3. In the last month, where did you shop for food THIRD MOST OFTEN? This could be a farmer's market, grocery store, dollar store, etc. [Shop3_Name]

How many times did you shop there in the last month? [Shop3_Freq] What do you like about shopping there? [Shop3 Like] Have you ever avoided shopping there because it was too difficult?

[Shop3 Avoid]



If so, what made it too difficult? [Shop3_Diff]

Q4. How often do you use public transportation to get groceries? [PubTrans]

- Always
- o Often
- \circ Sometimes
- \circ Occasionally
- \circ Never

Q5. How often <u>do your neighbors</u> ask you for help getting to the store or picking up groceries for <u>THEIR</u> households? [HelpGive]

- $\circ \, \text{Never}$
- \circ Once a month
- \circ A few times a month
- \circ Once a week
- \circ More than once a week

Q6. How often do <u>you</u> need to ask friends, family or neighbors for help getting to the store or picking up groceries for <u>YOUR</u> household? [HelpNeed]

- \circ Never
- \circ Once a month
- A few times a month
- \circ Once a week
- \circ More than once a week

Q7. In a typical year (prior to COVID-19), how often did you worry that your household would run out of food? [RunOut]

- \circ Often
- \circ Sometimes
- \circ Occasionally
- \circ Never
- \circ Don't know/prefer not to respond

Healthy Meals

Description. In these next questions, we will ask you about healthy foods and meals.

Q8. In a few words, please describe what "healthy food" means to you. [HealthyDef]

Q9. Based on your description of 'healthy food,' how healthy or not healthy is your diet? [HealthyDiet]

- I only eat healthy food.
- I mostly eat healthy food.
- I sometimes eat healthy food.
- I occasionally eat healthy food.
- I never eat healthy food.
- Don't know/prefer not to respond

Q10. In a typical year (prior to COVID-19), how often was there a time that you could not afford to prepare a healthy meal? [CantAfford]

- Often
- Sometimes
- Occasionally
- \circ Never
- \circ Don't know/prefer not to respond

Q11. What are some of the reasons or challenges that prevent you from preparing meals that you would consider 'healthy'? [PrevPrep] Q12. In what ways do you see a person's diet impacting their overall health?

[DietImpact]

Food Waste

Q13. How often do you have issues with refrigeration or with storing food? [StorageIssues]

- \circ Never
- \circ Occasionally
- Sometimes
- Frequently
- Don't know/prefer not to respond

Special Diets

Q14. Does anyone in your household have any special dietary needs? [SpecialDiet]

∘ Yes ∘ No

• Don't know/prefer not to respond

Q15. Can you please describe the special dietary needs of your household? [SpecialDietNeeds]

Q16. In the past month, how often did you have difficulty with buying or preparing foods that fit into your household's special dietary needs? [SpecialDietDiff]

- o Often
- Sometimes
- \circ Occasionally
- Never
- \circ Don't know/prefer not to respond

Community Gardens

Description. The following questions focus on fruit and vegetable gardening.

Q17. How interested or not interested are you in fruit and vegetable gardening at home or at a community garden? [GardenInterest]

- \circ Very interested
- Somewhat interested
- \circ Neither interested nor uninterested
- \circ Not at all interested
- ∘ I'm not sure

Q18. Would you be interested in receiving training in fruit and vegetable gardening? [GardenTrain]

- ∘ Yes ∘ No
- I'm not sure

Q19. If you have children, how likely or unlikely are you to put your children into a gardening program? [GardenChildren]

• Very likely

- Somewhat likely
- Neither likely nor unlikely
- Somewhat unlikely
- Very unlikely
- \circ I'm not sure
- \circ This question does not apply to me

Q20. If there was a community garden near you, which of the following (if any) would you be likely to do? Please mark all that apply.

- □ Take gardening workshops [GardenWorkshops]
- □ Plant food to feed your household [GardenPlant]
- $\hfill\square$ Collaborate with family or neighbors to plant food to feed neighborhood households

[GardenCollab]

- □ Collect and deliver food waste for neighborhood composting [GardenCompost]
- Participate in community gardening events [GardenEvents]
- □ Contribute time to maintenance and upkeep of the garden [GardenMaintain]
- Other: _____ [GardenOther]

Food Assistance Programs

Description. The following questions focus on your experience in food assistance programs, if you have any.

$\Lambda 11$	Tn +ha	naatvaar	howedten	haavaur	hauaahald	upped of	ach af thaa	, nradrama?
いノレ	in ine	nasi vear	now onen	nas vour	nousenoia	lised ea	ach or these	a Dropramsz
~~	111 1110	paor your,		nao your		4004.00		programo.

					-	
	I have not	I have not used	I have used	I have used	I have used	Don't
	used this	this program in	this program	this	this program	know/prefer
	program in	the past year,	1-2 times in	program	5 or more	not to
	the last five	but I have used	the past	3-4 times	times in the	respond
	years.	it in the past	year.	in the past	past year.	
		five years.		year.		
Food pantries						
[FAPantry]						
Food distribution						
from a church						
[FAChurch]						
Food distribution						
from another						
organization						
[FAOrg]						
Student free meals						
[FAStudent]						
Weekend Food						
Backpacks or other						
backpack program						
[FABackpack]						
WIC [FAWIC]						
Supplemental						
Nutrition						
Assistance Program						
(SNAP) [FASNAP]						
Fresh Access Bucks						
[FAFAB]						

Q22. If you have received food from a food assistance program or pantry, how often does the food fit your household's dietary needs? [FANeeds]

• Almost always

 \circ Often

 $\circ \text{ Sometimes}$

- Occasionally
- Almost never
- \circ Don't know/prefer not to respond
- Not applicable

Q23. If you have received food from a food assistance program or pantry, how satisfied are you with the quality of food you received? [FAQual]

- \circ Completely satisfied
- \circ Somewhat satisfied
- \circ Neither satisfied nor dissatisfied
- Somewhat dissatisfied
- Completely dissatisfied

Q24. If you receive food assistance (such as SNAP or WIC), how often does the food you get cover you for the month? [FACover]

- Almost always
- \circ Often
- \circ Sometimes
- \circ Occasionally
- \circ Never
- \circ Don't know/prefer not to respond
- Not applicable

Community Assets

Description. The following questions ask you to think about solutions, ideas, and resources within your community and home that can serve as assets to improve access to healthy food.

Q25. What are your thoughts for how to improve access to healthy food in your community?

[Idea1] [Idea2] [Idea3] Q26. Of the ideas you listed for the previous question, what skills, knowledge, or other resources could you provide to make sure one of these ideas is successful? [AssetsSelf]

Q27. What do the residents value about your neighborhood? [AssetsNeighb]

Q28. Please list any groups or organizations in which you participate (for example, churches, non-profit organizations, hobby and special interest groups, etc.). [AssetsOrg]

Q29. Besides the groups and organizations you are involved in, can you think of other ways you stay involved with your community? [AssetsInvolv]

Demographics

Description. Finally, we would like to ask you some demographic questions.

Q30. What is your age? [Age]

Q31. How do you identify your gender? [Gender]

- \circ Man
- Non-binary
- Woman
- Prefer to self-describe: _____
- Prefer not to respond

Q32. What category(ies) best describe you? Feel free to select more than one if applicable.

American Indian or Native American [RE_AINA]
Asian [RE_Asian]
Native Hawaiian or other Pacific Islander [RE_NHPI]
Black or African American [RE_BAA]
White [RE_White]
Other: _____ [RE_Other]

- Q33. Are you Hispanic or Latinx? [RE_HL]
 - ∘ Yes
 - ∘ No

Q34. What is your highest level of education? [Education]

- \circ No formal education
- Elementary school
- \circ Some high school
- High school diploma or the equivalent (GED)
- Some college (no degree)
- Trade/technical/vocational training

- Associate degree
- Bachelor's degree
- Master's degree
- Doctorate degree
- Professional degree
- Other: _____
- Prefer not to respond

- Q35. What is your zip code? [ZipCode]
- Q36. How many adults live in your household (including yourself)? [Adults]
- Q37. How many children (17 years old or younger) live in your household? [Children]

Q38. Is there anything you would like to add that we haven't already talked about? [Additions]

ii) Binarized Variables & Collapsed Responses

Many of the ordinal variables in the survey were heavily skewed, such that responses on one extreme were larger than all the other options combined. Often this was for questions with a 'never' item, making these variables ideal for binarizing into variables indicating the presence or absence of a specific experience. There were a few exceptions to this pattern, such as the self-rated healthiness of diet, where 57 percent of respondents answered 'I mostly eat healthy food.' Certain Likert-scale items did not lend themselves to dichotomizing one response option against all others, such as the question about interest in gardening, likelihood of enrolling children in a gardening program, and satisfaction with the quality of food assistance received. See Table A1 below for how the responses for each item were recorded into new variables.

Variable	Responses	Ν	Binarized	Ν
PubTrans	Never	78	No	78
	Occasionally	9	Yes	22
	Sometimes	4		
	Often	4		
	Always	5		
HelpGive	Never	78	No	78
	Once a month	6	Yes	23
	A few times a month	11		
	Once a week	3		
	More than once a week	3		
HelpNeed	Never	67	No	67
	Once a month	13	Yes	34
	A few times a month	17		
	Once a week	2		
	More than once a week	2		
CantAfford	Never	52	No	52
	Occasionally	17	Yes	47
	Sometimes	23		
	Often	7		
RunOut	Never	58	No	58
	Occasionally	16	Yes	39
	Sometimes	14		
	Often	9		
StorageIssues	Never	76	No	76
	Occasionally	12	Yes	24
	Sometimes	8		
	Frequently	4		
SpecialDietDiff	Never	20	No	20
	Occasionally	3	Yes	15

Table A1. Collapsed response options for binarized variables

	Sometimes	10		
	Often	2		
HealthyDiet	I never eat healthy food.	2	Not healthy	37
	I occasionally eat healthy food.	10		
	I sometimes eat healthy food.	25		
	I mostly eat healthy food.	56	Healthy	61
	I only eat healthy food.	5		

Variable	Responses	Ν	Binarized	Ν
GardenInterest	Not at all interested	14	Low interest	17
	Neither interested nor uninterested	3		
	Somewhat interested	32	Mid interest	32
	Very interested	46	High interest	46
GardenChildren	Very unlikely	5	Low interest	8
	Somewhat unlikely	1		
	Neither likely nor unlikely	2		
	Somewhat likely	15	Mid interest	15
	Very likely	31	High interest	31
FAPantry	Not in the past 5 years	58	No	58
	Not in the past year, but in the last 5	6	Yes	36
	1-2 times in the past year	11		
	3-4 times in the past year	6		
	5 or more times in the past year	13		
FAChurch	Not in the past 5 years	46	No	46
	Not in the past year, but in the last 5	7	Yes	51
	1-2 times in the past year	15		
	3-4 times in the past year	11		
	5 or more times in the past year	18		
FAOrg	Not in the past 5 years	56	No	56
	Not in the past year, but in the last 5	4	Yes	39
	1-2 times in the past year	17		
	3-4 times in the past year	7		
	5 or more times in the past year	11		
FAStudent	Not in the past 5 years	61	No	61
	Not in the past year, but in the last 5	0	Yes	33
	1-2 times in the past year	10		
	3-4 times in the past year	1		
	5 or more times in the past year	22		
FABackpack	Not in the past 5 years	79	No	79
	Not in the past year, but in the last 5	1	Yes	14
	1-2 times in the past year	5		
	3-4 times in the past year	1		
	5 or more times in the past year	7		
FAWIC	Not in the past 5 years	78	No	78
	Not in the past year, but in the last 5	4	Yes	15
	1-2 times in the past year	4		

	3-4 times in the past year	0		
	5 or more times in the past year	7		
FASNAP	Not in the past 5 years	52	No	52
	Not in the past year, but in the last 5	4	Yes	44
	1-2 times in the past year	9		
	3-4 times in the past year	1		
	5 or more times in the past year	30		
FAFAB	Not in the past 5 years	88	No	88
	Not in the past year, but in the last 5	5	Yes	9
	1-2 times in the past year	2		
	3-4 times in the past year	1		
	5 or more times in the past year	1		

Variable	Responses	Ν	Binarized	Ν
FANeeds	Almost never	6	Not well	32
	Occasionally	13		
	Sometimes	13		
	Often	11	Well	37
	Almost always	26		
FAQual	Completely dissatisfied	2	Not satisfied	11
	Somewhat dissatisfied	3		
	Neither satisfied nor dissatisfied	6		
	Somewhat satisfied	27	Semi satisfied	27
	Completely satisfied	32	Satisfied	32
FACover	Never	12	Not well	29
	Occasionally	4		
	Sometimes	13		
	Often	3	Well	21
	Almost always	18		

In addition to the collapsed variables above, the Children variable was collapsed into three categories as the numbers of participants with 3 or more children were very small. An ordinal variable for age category was also created for use in chi-square analyses where a specific age category was of interest (e.g., elderly vs. all other age groups) or in logistic regression where there was a nonlinear relationship between number of children as a predictor variable and the log-odds. 10-year age ranges were collapsed into 20-year ranges, except for 60-69, as this group comprised more than a quartile. The resulting distribution of the collapsed variable was approximate quartiles, as shown below in Table A2. The 11-option Education variable was also collapsed into a four-level ordinal variable using the eight items that respondents had selected. These categories were collapsed to address the small cell sizes for some of the response options and to make the variable more manageable for chi-square and logistic regression analyses.

Variable	Responses	Ν	Collapsed	Ν
Children	0	52	0	52
	1	18	1	18
	2	10	2+	22
	3	5		
	4	5		
	5	2		
Age	Numeric text entry	91	20-39	22
			40-59	24
			60-69	26
			70+	19
Education	Some high school	8	HS or less	27
	High school diploma or GED	19		
	Some college (no degree)	29	Beyond HS	33
	Trade/technical/vocational training	4		
	Associate degree	5	College degree	23
	Bachelor's degree	18		
	Master's degree	11	Advanced degree	13
	Doctorate degree	2		

Table A2. Collapsed response options for demographic variables

Finally, for the food assistance usage questions, SPSS calculated a sum of the responses. These ordinal variables were coded 0-4 such that '0' indicates no use of the program within the past five years. The dichotomous variable [FAAny] was created from this sum by recoding any sum greater than '0' as '1' to indicate any use of food assistance programs within the past five years.

Composite Measures

Grocery shopping

Shopping frequency: A frequency of grocery shopping in the last month [ShopFreq] was generated by summing Shop1_Freq, Shop2_Freq, and Shop3_Freq. There were eight outliers for the resulting variable, with sums ranging from 24 to 60, as shown below in Figure A1. To address these extreme values as well as to account for the fact that recall is an imperfect means of measuring behaviors, this scale was transformed into an ordinal variable based on approximate quartiles, as shown below in Table A3.



Figure A1. Boxplot of calculated shopping frequency

Grocery shopping frequency

Range	Ν	%	Ordinal category
1.0-4.5	25	25%	Once a week or less
5-8.5	26	26%	1-2 times per week
9.0-11.5	24	24%	2-3 times per week
12+	25	25%	3 + times per week

Shopping locations: Frequency variables were created for use of three different kinds of stores for buying groceries: grocery stores [ShopFreq_Grocery], superstores [ShopFreq_Super], and dollar stores [ShopFreq_Dollar]. The specific stores included in each of these categories are shown in Table A4 below. Two locations categorized as 'other' because they were only mentioned once were included in the grocery store calculation: Fresh Market and Eastern Market. The locations not captured within these categories include the following places that very few respondents mentioned: Farmers market (N=3), Walgreens (N=2), Wawa (N=1), General store (N=1), Daily market (N=1), Flea market (N=1), Veg and fruit stand (N=1), West Coast Seafood (N=1).

Туре	Responses	Shop1 N	Shop2 N	Shop3 N	Total N
Grocery store	Publix	26	19	14	59
	Winn Dixie	27	20	7	54
	Wards	1	11	6	18
	Aldi	3	1	0	4
	Whole Foods	2	2	0	4
	Save-A-Lot	0	1	3	4
	Grocery store	2	1	0	3
	Hitchcocks	0	2	0	2
	Trader Joes	0	0	2	2
	Fresh Market	0	1	0	1
	Eastern Market	0	0	1	1
Superstore	Walmart	31	21	13	65
	Sams Club	3	5	3	11
Dollar store	Dollar General	4	3	6	13
	Family Dollar	0	3	4	7
	Dollar store	0	0	5	5
	Dollar Tree	1	1	2	4

Table A4. Shopping locations used in construction of scales for location type

Three new categorical variables were created by categorizing the location provided in Shop1_Name [Shop1_Type], Shop2_Name [Shop2_Type], and Shop3_Name [Shop3_Type]., I Nine dummy variables were created from these new variables, indicating if the three types used were or were not grocery stores, were or were not superstores, and were or were not dollar stores. The following SPSS syntax was then used to compute scales for each type:

COMPUTE ShopFreq_Grocery = SUM.1(Shop1_1*Shop1_Freq, Shop2_1*Shop2_Freq, Shop3_1*Shop3_Freq).

COMPUTE ShopFreq_Super = SUM.1(Shop1_2*Shop1_Freq, Shop2_2*Shop2_Freq, Shop3_2*Shop3_Freq).

COMPUTE ShopFreq_Dollar = SUM.1(Shop1_3*Shop1_Freq, Shop2_3*Shop2_Freq, Shop3_3*Shop3_Freq).

As with the overall grocery shopping frequency variable, each of these scales had outliers and extreme outliers. To address these outliers and account for imperfect recall, these scales were recoded into ordinal variables. For the purposes of comparability across all shopping frequency variables, these variables use the same ranges from the ordinal levels in the recode of overall shopping frequency.

Shopping location avoidance: A scale of grocery store avoidance was created [ShopAvoid] by weighting the avoidance of a location by the order of mention. Notably, the grocery shopping block of questions asks for the most frequent shopping location, then the second-most frequent, then the third-most frequent. However, the Shop1_Freq, Shop2_Freq, and Shop3_Freq variables show that sometimes the first-mentioned location was not actually the most frequent. 11 respondents' second-mentioned responses had higher frequencies than their first-mentioned responses had higher frequencies than their first-mentioned responses had higher frequencies that the order of mention is more an indicator of overall salience/importance rather than only of frequency, since a quarter of respondents listed their top three locations in an order other than by frequency. The following SPSS syntax was used to generate the grocery store avoidance scale:

COMPUTE ShopAvoid = SUM.1(Shop1_Avoid*3, Shop2_Avoid*2, Shop3_Avoid).

The scale ranges from 0 (no avoidance of top three shopping locations) to 6 (avoidance of all top three shopping locations). There were no outliers in this new variable. However, it was heavily skewed, with most respondents reporting no avoidance of their top three shopping locations (see Figure A2). As with most of the ordinal variables in this dataset, this scale was heavily skewed, with the '0' category far larger than all other categories. Thus the seven levels were collapsed into four to increase the cell sizes of the nonzero categories.

Table A3. Score ranges of avoidance of top three shopping locations scale recoded to four levels

Range	Ν	%	Ordinal category
0	51	50	No avoidance
1-2	16	16	Low avoidance
3-4	19	18	Mid avoidance
5-6	15	15	High avoidance



Figure A2. Histogram of avoidance of top three shopping locations scale

Food access challenges

A food access challenge scale was created [AccessChallenge] using the HelpNeed, RunOut, and CantAfford variables. Each of these items that comprise this complex construct capture different aspects of difficulty accessing food. The correlations between these items are shown in Table A5 below. All correlations are at least moderate and significant at the 0.05 level or higher. Cronbach's Alpha for the scale comprised of these three items is .639, indicating an acceptable level of internal consistency for a scale using only three items. There were no outliers in the newly constructed variable, which ranges from 0-9.

 Table A5. Correlation matrix of food access challenge variables

		Needing to ask for help	Worrying about running
		getting groceries	out of food
Worrying about running out of	Gamma	.375*	
	Significance	.022	
food	Ν	96	
Being unable to	Gamma	.449**	.636***
afford to prepare	Significance	.004	<.001
a healthy meal	Ν	98	95

* Correlation is significant at the 0.05 level

** Correlation is significant at the 0.01 level

*** Correlation is significant at the 0.001 level
Willingness to participate in gardening activities

The binary GardenWorkshops, GardenPlant, GardenCollab, GardenCompost, GardenEvents, and GardenMaintain variables were used to generate an index of willingness to participate in gardening activities [GardenWilling]. Table A6 below shows the correlations between these items. All correlations are strong except one and significant at the 0.01 level or higher. Cronbach's Alpha for this 6-item scale is .869, indicating good reliability. There were no outliers in the newly constructed variable, which ranges from 0 to 6.

		Workshops	Plant	Collab	Compost	Events
Plant	Phi	.644***				
	Significance	<.001				
	N	100				
Collab	Phi	.472***	.664***			
	Significance	<.001	<.001			
	N	100	100			
Compost	Phi	.285**	.385***	.516***		
	Significance	.007	<.001	<.001	-	
	N	100	100	100		
Events	Phi	.496***	.519***	.599***	.532***	
	Significance	<.001	<.001	<.001	<.001	
	Ν	100	100	100	100	
Maintain	Phi	.538***	.644***	.557***	.450***	.580***
	Significance	<.001	<.001	<.001	<.001	<.001
	N	100	100	100	100	100

Table A6. Correlation matrix of gardening activity variables

** Correlation is significant at the 0.05 level

*** Correlation is significant at the 0.01 level

Food assistance use

There were several clusters of food assistance program usage. The food assistance variables FAPantry, FAChurch, and FAOrg were all moderately correlated, and all these correlations were significant at the 0.001 level. When treated as a scale, Cronbach's Alpha is .666, an acceptable level of internal consistency for a scale comprised of only three items. These three variables formed a scale for use of nongovernmental food access programs [FANGO]. There were no outliers in this newly constructed variable, which ranges from 0 to 12.

The second cluster of programs included those with an eligibility requirement related to having children in the household. These included backpack programs, student free meals, and WIC. The correlations between student free meals and backpack programs as well as WIC were strong and significant. However, the relationship between WIC and backpack program use was moderate and nonsignificant. When treated as a scale, Cronbach's Alpha is .509. While this is an acceptable level of internal reliability for a scale of only three items, the correlations indicate that the most important variable is student free meals, which is also included in the federal program use did not seem necessary.

The third cluster of programs included the federal programs student free meals, WIC, and SNAP. All the correlations were moderate to strong and significant at the 0.05 level or higher. When treated as a scale, Cronbach's Alpha is .598, an acceptable level of reliability for a scale comprised of only three items. These three variables formed a scale for use of federal food access programs [FAFed]. There were two outliers in this newly constructed variable, which ranges from 0 to 12.

		Pantry	Church	Org	Student	Backpack	WIC	SNAP
Church	Gamma	.549***						
	Significance	<.001						
	Ν	93						
Org	Gamma	.507***	.454** *					
	Significance	<.001	<.001					
	N	92	93					
Student	Gamma	045	.082	.298				
	Significance	.798	.596	.082				
	N	92	93	91				
Backpack	Gamma	.380	.215	.393	.649*			
	Significance	.125	.338	.103	.012			
	Ν	90	91	90	92			
WIC	Gamma	.130	.100	.108	.666*	.537		
	Significance	.574	.634	.641	.012	.117		
	Ν	91	92	91	. 92	90		
SNAP	Gamma	.208	.186	.067	.545***	.288	.728**	
	Significance	.188	.152	.646	<.001	.250	.001	
	Ν	93	95	93	93	91	93	
FAB	Gamma	.252	.276	061	421	-1.000	.368	.117
	Significance	.438	.299	.841	.342	.385	.426	.700
	Ν	93	96	93	93	91	. 92	95

 Table A7. Correlation matrix of food assistance program use

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* Correlation is significant at the 0.05 level (2-tailed). *** Correlation is significant at the 0.001 level (2-tailed).

iii) February 2021 Focus Group Questions

What was your favorite memory of food and family gatherings?

What role does food play in your family gatherings?

How does your experience with food at family gatherings differ generationally from your children's experience with food today?

Do you know families that worry about running out of food during the month?

If so, what makes it worse?

How would you describe food insecurity or hunger?

Food insecurity according to the USDA includes food that is lower in quality, food that is not what you would usually eat, regardless of the amount, or not enough food.

Does this capture any of your experiences or experiences of any of your neighbors or people you may know within the community?

What kinds of foods are important to have available in your community?

What does a healthy diet or meal look like for you?

Please name some of the foods that are healthy options to you, their availability to you now, and why they are or are not available.

What are some things that prevent you from following the diet that you mentioned?

What is—if any—your experience with food assistance programs, and how could they be better?

Is gardening a resource for you or someone you know?

Do you or someone you know share food from a garden with family and community members?

If you were able to come up with and decide on something that you feel would solve the problem of food insecurity in your community, what would your suggestions be?

iv) November 2021 Focus Group/Interview Questions

What do you see that is special about your community?

Think back to the survey you took and the ideas you provided for solutions to address food access in the community. Considering the solutions you gave, how do we make those ideas a reality?

Some of the most common things that were mentioned were a grocery store in the Southeast, community gardening, and educational programs.

In the survey, participants indicated that education is another important priority to help improve healthy eating in the community. In your opinion, what kind of educational programs can actually be useful and keep people engaged?

For example: cooking demonstrations at grocery stores, providing recipes, etc.

What topics could the community benefit from learning about?

How should the information be shared? For example: online, in person etc.

What barriers do you see to having gardens as one solution to food access issues in Southeast Gainesville?

In the survey, we asked you to describe what healthy eating means to you. Can you talk more about what you shared?

What can be done to ensure healthy eating is easy for people with any life circumstance or personal interest?

What are some of the things that already exist in your community that help give people access to foods they want?



For example, this could be something like a neighbor who is great at cooking or fishing, people who share or trade goods, community gardens, food distribution from a church, etc.

What type of support do these programs or services need to continue operating or expand?

How can you and your neighbors use these resources to improve food access in your community?

Imagine that five years from now, no one in the Southeast Gainesville community has to worry about running out of food, and everyone has access to the foods they want. Is there anything else that we haven't discussed that could make this a reality? [Interview only]

How do you or your neighbors solve any challenges with buying or preparing foods that fit within your households' special dietary needs?

What effect has the COVID-19 pandemic had on your diet and access to food?

Do you think your shopping habits changed?

As a result of the pandemic, what solutions have you found to help your family or your community to eat?

Is there anything that we haven't discussed here that you would like to share?

v) Examples of statements coded to each topic area

Торіс	Types of statements	s Examples
Access and availability	Food costs, foods respondents do or would like to have, barriers/facilitators to obtaining those foods, or food assistance	Accessibility and affordability. We need more places to shop for healthy food on the east side of town. We could go to Wards to buy healthy fresh food from local farmers, but it is too expensive. It's fresh, I find everything I need, as far as seafood. I don't shop for poultry and meat there, but seafood, vegetables, and everything. I love it. I love the backpack program. At my job. I actually see it
		working for families, and I've also heard moms

		complaining, "Oh, well the food is giveaway food, so it's close to expiration."
Places to buy	l ikes and dislikes	There is not a full-service grocery store in East
food	about top three grocery shopping locations, general experiences with food retailers, stores/restaurants/et c. participants would	Gainesville. There are small stores like Family Dollar and Dollar General, but the closest full-service grocery store is Super Walmart on Waldo Road, which is difficult with public transportation. We need another grocery store in East Gainesville. Dollar General can only give you snack foods and nonperishables. It would help with workforce, economy, local farmers.
	like to see in their community	I recall—I grew up in Southeast Gainesville—that back in the day there were also, in some neighborhoods, stores. Corner stores, but IGAs, like smaller grocery stores. Like North Lincoln Heights, there was a store there, Mr. Straughter's store diagonally from the Cotton Club, there was an IGA. There were more of those throughout the community, and now you don't really see that.
Community	What residents value	There are a lot of families in my community, and they
engagement	about neighborhoods, organizational involvement, types of	are very helpful and supportive of one another. In some cases, there are some of my neighbors who have gardens. And it's a close-knit community, and people share a lot of their resources with others.
	involvement they would be willing to do, suggestions for engaging people	At the very least I could do a lot of word of mouth promotion and some marketing efforts to make sure people know about it. I can do marketing online and with flyers.
Transportation	Vehicles, public transportation, or proximity to destinations such as grocery stores	Grocery stores that are within walking distance for those of us that don't have transportation to get to a grocery store. Sometimes you can live on a bus line but do not have the funds to take the bus to get to the stores.
		What if we could have some food trucks or something like that? Or vehicles that would go and make deliveries in the neighborhood.
Community gardens	Gardening, planting, growing, edible landscaping, or gardening education	It would be good to see gardening education/agriculture in high schools. The youth need to learn this at a young age. My grandfather learned as a kid on the farm, but now that is not done.
		I love these green gardens we have all over the hood. But hell, if I can't go on in, and grow nothing, and

		actually pick it, and cultivate it, and eat it, then what are we doing?
Education and nutrition	Meaning of healthy food (survey only), impact of diet on health (survey only), suggestions for topics, audiences, and sites for food-related education	Healthy food means to me: vegetables, fruits, foods that are good for your digestive system, foods that are low in calories and that are helpful and good for your body. I definitely think it has to start with children. That's the easiest connection to make is within the school systems of talking to kids about healthy eating, because they're going to be more likely to bring that home.

Appendix B

i) Places to Buy Food: Qualitative Coding Tree

	# of
Survey Category	respondents
Grocery Likes	102
Selection	75
Specific offerings	50
Quality	39
Variety	22
Stocking what you need	12
Bulk	11
Local	5
Convenience	73
Proximity	32
One stop shop	19
Speed	7
Delivery or curbside pickup	3
Prices	50
Deals	22
Store environment	41
Customer service and	20
staffing	
Cleanliness	16
Familiarity	3
Grocery Challenges	58
Store environment	32
Crowd/long lines	14

Lack of cleanliness	4
Customer service and	10
staffing	
Transportation	17
Transportation\Distance	7
Transportation\Parking	3
Costs	9
Not stocking what you need	6
Time	4
Pandemic	4
Wants/needs in SE	46
Grocery stores	29
Farmers markets	13
Restaurants	5
Produce markets	4
Farm stands	3
Healthy options	3
Ways to contribute	9

Survey Category	# of	
	respondents	
Grocery likes	4	
Grocery challenges	9	
Wants/ needs in SE	8	
Gainesville		

Appendix C

i) Access and Availability: Qualitative Coding Tree

Survey Category	# of respondents
Desired foods (detailed in report)	64
Freshness	47
Special diet needs (detailed in	39
report)	
Barriers	68
Cost	39
Time	25

-

Focus group category	# of respondents
Desired foods (detailed in report)	12
Freshness	12
Special diet needs (detailed in	5
report)	
Barriers	11
Insufficiency of food assistance	9
Cost	8
Lack of options/variety	7
Time	4
Pandemic	3
Picky kids	3
Stigma	2

Convenience	2
Facilitators	4
Receiving food assistance	3
Affordable pricing	3
Convenience	3
Receiving food or help from others	2
Variety/options	2

Appendix D

i) Food Assistance: Qualitative Coding Tree

Survey category	# of
Survey category	respondents
Insufficiency of food assistance	10
Stigma	3
Church distributions	12
SNAP	11
Other	9
Distributions from other orgs	7
Pantries	5
WIC	3
Student free meals	3
FAB	2
	# of
Focus aroun category	
Focus group category	respondents
Insufficiency of food assistance	respondents 9
Insufficiency of food assistance Stigma	respondents 9 2
Focus group categoryInsufficiency of food assistanceStigmaFood assistance as a facilitator	respondents 9 2 3
Focus group categoryInsufficiency of food assistanceStigmaFood assistance as a facilitatorBackpack programs	respondents 9 2 3 6
Focus group categoryInsufficiency of food assistanceStigmaFood assistance as a facilitatorBackpack programsSNAP	respondents 9 2 3 6 6
Focus group categoryInsufficiency of food assistanceStigmaFood assistance as a facilitatorBackpack programsSNAPWIC	respondents 9 2 3 6 6 5
Focus group categoryInsufficiency of food assistanceStigmaFood assistance as a facilitatorBackpack programsSNAPWICStudent free meals	respondents 9 2 3 6 5 3
Focus group categoryInsufficiency of food assistanceStigmaFood assistance as a facilitatorBackpack programsSNAPWICStudent free mealsDistributions from other orgs	respondents 9 2 3 6 6 5 3 2
Focus group categoryInsufficiency of food assistanceStigmaFood assistance as a facilitatorBackpack programsSNAPWICStudent free mealsDistributions from other orgsChurch distributions	respondents 9 2 3 6 5 3 2 3 2 3 2 3 2 3 1
Focus group categoryInsufficiency of food assistanceStigmaFood assistance as a facilitatorBackpack programsSNAPWICStudent free mealsDistributions from other orgsChurch distributionsPantries	respondents 9 2 3 6 5 3 2 1
Focus group categoryInsufficiency of food assistanceStigmaFood assistance as a facilitatorBackpack programsSNAPWICStudent free mealsDistributions from other orgsChurch distributionsPantriesFAB	respondents 9 2 3 6 5 3 2 1 1 1

ii) Food Assistance: Program-Specific Results

Relationships between programs

There were several clusters of food assistance program usage. Pantries, church distributions, and distributions from other organizations were all moderately correlated and significantly related at the 0.001 level. The second cluster of programs included those with an eligibility requirement related to having children in the household. These included backpack programs, student free meals, and WIC. The correlations between student free meals and backpack programs as well as WIC were strong and significant. However, the relationship between WIC and backpack program use was moderate and nonsignificant. The third cluster of programs included the federal programs: student free meals, WIC, and SNAP. All the correlations were moderate to strong and significant at the 0.05 level or higher. See Table D1 below for the relationships between each of the programs.

		Pantry	Church	Org	Student	Backpack	WIC	SNAP
Church	Gamma	.549***						
	Significance	<.001						
	Ν	93						
Org	Gamma	.507***	.454***					
	Significance	<.001	<.001					
	Ν	92	93					
Student	Gamma	045	.082	.298				
	Significance	.798	.596	.082				
	Ν	92	93	91				
Backpack	Gamma	.380	.215	.393	.649*			
	Significance	.125	.338	.103	.012			
	Ν	90	91	90	92			
WIC	Gamma	.130	.100	.108	.666*	.537		
	Significance	.574	.634	.641	.012	.117		
	Ν	91	92	91	92	90		
SNAP	Gamma	.208	.186	.067	.545***	.288	.728**	
	Significance	.188	.152	.646	<.001	.250	.001	

Table D1. Correlation matrix between all food assistance programs

	Ν	93	95	93	93	91	93	
FAB	Gamma	.252	.276	061	421	-1.000	.368	.117
	Significance	.438	.299	.841	.342	.385	.426	.700
	Ν	93	96	93	93	91	92	95

* Correlation is significant at the 0.05 level (2-tailed).

*** Correlation is significant at the 0.001 level (2-tailed).

Pantries

About a third of respondents (35 percent) reported any use of pantries within the past five years. There were no demographic variables significantly related to pantry use, as shown below in Table D3. Respondents who used pantries significantly more often reported that the food assistance they had received covered them for the month 'often' or 'almost always' (p=.03; φ =.32). This finding held even when controlling for education level in a binary logistic regression analysis (p=.045).

Table D2. Use of pantries

	Ν	%	Binarized	Ν	%
Not in the past 5 years	58	56.3	No	58	56.3
Not in the past year	6	5.8	Yes	36	35.0
1-2 times in the past year	11	10.7			
3-4 times in the past year	6	5.8			
5+ times in the past year	13	12.6			
Don't know/prefer not to respond	3	2.9	Missing	9	8.7
Missing	6	5.8			

Table D3. Demographics of respondents who used pantries

		Did n	ot use	Dic	l use	Pearson chi-s	quare test
		Ν	%	Ν	%	Significance	Correlation
Gender	Woman	45	83.3	25	73.5	p=.267	<i>φ</i> =.118
	Man	9	16.7	9	26.5		
Age	20-39	13	25.0	9	26.5	<i>p</i> =.465	<i>V</i> =.172
quartile	40-59	17	32.7	6	17.6		
	60-69	13	25.0	11	32.4		
	70+	9	17.3	8	23.5		
Education	HS or less	13	24.1	12	33.3	p=.358	<i>V</i> =.189
level	Beyond HS	16	29.6	14	38.9		
	College degree	16	29.6	7	19.4		

	Advanced degree	9	16.7	3	8.3		
Race/	Black or African	45	83.3	31	88.6	p=.494	<i>φ</i> =.072
ethnicity	American ^a						
Adults in	1	21	38.9	13	38.2	p=.552	V=.116
household	2	25	46.3	13	38.2		
	3-4	8	14.8	8	23.5		
Children in	0	29	53.7	18	56.3	p=.114	V=.225
household	1	14	25.9	3	9.4		
	2-5	11	20.4	11	34.4		

^a Other race/ethnicity categories are not included because cell sizes were too small

^b Reported with Yates continuity correction

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Table D4. Program experiences of respondents who used pantries

		Ord	inal	al Collaps		osed Pearson chi-square test	
		Ν	%	Ν	%	Sig.	Corr.
Food	Almost never	2	6.9	14	48.3	p=.270	<i>φ</i> =14
assistance	Occasionally	6	20.7				1
fits with	Sometimes	6	20.7				
dietary needs	Often	4	13.8	15	51.7		
	Almost always	11	37.9				
Satisfaction	Completely dissatisfied	2	6.3	6	18.8	p=.577	<i>V</i> =.131
with food	Somewhat dissatisfied	1	3.1				
assistance	Neither satisfied nor	3	9.4				
quality	dissatisfied						
	Somewhat satisfied	13	40.6	13	40.6		
	Completely satisfied	13	40.6	13	40.6		
Food	Never	3	13.6	9	40.9	<i>p</i> =.033	<i>φ</i> =.321
assistance	Occasionally	2	9.1				*
covers for the month	Sometimes	4	18.2				
	Often	3	13.6	13	59.1		
	Almost always	10	45.5				

Correlations are computed only for the subset of respondents who reported use of food assistance (N=80).

^b Reported with Yates continuity correction

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Five survey respondents discussed pantries. One stated that there were many food banks in their community, but two others recommended expanding the number of pantries. Two others highlighted the following issues with the foods that are offered: "I think sometimes the repetitive nature of the food that is available at food pantries can be problematic" (P048). "The food from the food pantry is old. Never once have I gotten something from a food pantry that's fresh—even the meat, it's outdated" (P091). The interview participant listed Catholic Charities and Bread of the Mighty as local pantries and explained:

> I don't know if people always know about them. Being that I worked in nonprofits, and I am just kind of involved, [...] I don't know if people always know about themselves either - if they're in a spot where they're in need. So, I think that those organizations could use more support and getting the word out to people that they're there to help. And yeah, I guess there's also the part of it, of people not wanting to feel ashamed by going there.

Church distributions

Half of respondents (50 percent) reported using church food distributions within the past five years. The only demographic factors significantly related to *church distribution use* were identifying as Black or African American (p=.02; φ =.24) and not identifying as an 'other' race/ethnicity (p=.048; φ =-.25). The latter relationship should be interpreted with caution due to small cell sizes. There were no significant relationships between using church distributions and the experiences respondents had with food assistance programs.

	Ν	%	Binarized	Ν	%
Not in the past 5 years	46	44.7	No	46	44.7
Not in the past year	7	6.8	Yes	51	49.5
1-2 times in the past year	15	14.6			
3-4 times in the past year	11	10.7			
5+ times in the past year	18	17.5			
Don't know/prefer not to respond	1	1.0	Missing	6	5.8
Missing	5	4.9			

Table D5. Use of church distributions

Table D6. Demographics of respondents who used church distributions

		Did n	ot use	Dic	luse	Pearson chi-s	quare test
		Ν	%	Ν	%	Significance	Correlation
Gender	Woman	34	77.3	39	83.0	p=.495	<i>φ</i> =072
	Man	10	22.7	8	17.0		
Age	20-39	9	20.9	12	26.7	p=.451	<i>V</i> =.173
quartile	40-59	13	30.2	11	24.4		
	60-69	15	34.9	11	24.4		
	70+	6	14.0	11	24.4		
Education	HS or less	11	25.0	16	32.7	p=.722	<i>V</i> =.120
level	Beyond HS	14	31.8	17	34.7		
	College degree	12	27.3	11	22.4		
	Advanced degree	7	15.9	5	10.2		
Race/	Black or African	34	77.3	45	93.8	p=.023	<i>φ</i> =.236*
ethnicity	American ^a						
Adults in	1	19	43.2	17	36.2	p=.476	<i>V</i> =.128
household	2	19	43.2	19	40.4		
	3-4	6	13.6	11	23.4		
Children in	0	24	57.1	26	55.3	p=.892	<i>V</i> =.051
household	1	9	21.4	9	19.1		
	2-5	9	21.4	12	25.5		

^a Other race/ethnicity categories are not included because cell sizes were too small

^b Reported with Yates continuity correction

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Table D7. Program experiences of respondents who used church distributions

		Ord	Ordinal		psed	Pearson chi-square test	
		Ν	%	N	%	Sig.	Corr.
Food	Almost never	2	4.8	20	47.6	p=.473	<i>φ</i> =09
assistance	Occasionally	9	21.4				0
fits with	Sometimes	9	21.4				
dietary needs	Often	4	9.5	22	52.4		
	Almost always	18	42.9				
Satisfaction	Completely dissatisfied	1	2.2	7	15.2	<i>p</i> =.873	<i>V</i> =.064
with food	Somewhat dissatisfied	2	4.3				
assistance	Neither satisfied nor	4	8.7				
quality	dissatisfied						
	Somewhat satisfied	19	41.3	19	41.3		
	Completely satisfied	20	43.5	20	43.5		
Food	Never	7	24.1	17	58.6	p=.878	<i>φ</i> =02
assistance	Occasionally	3	10.3				3

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covers for the	Sometimes	7	24.1			
month	Often	2	6.9	12	41.4	
	Almost always	10	34.5			

Correlations are computed only for the subset of respondents who reported use of food assistance (N=80).

^b Reported with Yates continuity correction

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

In the survey, church food distributions were mentioned the most frequently out of any type of food assistance program (12 respondents). This was usually in the context of the respondent's community organization participation but also sometimes as a suggested solution to improve food access. Churches that were listed as having food distributions included Springhill Missionary Baptist Church, Open Door Ministries, Mount Pleasant, Passage Family Church, Greater Bethel, Bethel Seventh Day Adventist Church, and Compassion Outreach Ministries. Only one focus group participant mentioned church distributions, though not by name: "there's a food giveaway, the farm-to-family giveaway—my daughter's babysitter, her church is involved in it, so she'll bring me a box right after a real good friend has also brought me a box. So I'll give it to my families, because I have a big family" (FG2.2).

Distributions from other organizations

About a third of respondents (38 percent) reported using food distributions from other organizations in the past five years. Households with more adults were significantly more likely to have used food distributions from other organizations within the last five years, according to a binary logistic regression (p=.02; Nagelkerke R²=.08). There were no significant relationships with respondents' food assistance experiences, though food assistance fit with dietary needs fell just short of statistical significance (p=.07; φ =-.23). In a binary logistic regression incorporating education level, use of distributions from other organizations did not approach significance.

	Ν	%	Binarized	Ν	%
Not in the past 5 years	56	54.4	No	56	54.4
Not in the past year	4	3.9	Yes	39	37.9
1-2 times in the past year	17	16.5			
3-4 times in the past year	7	6.8			
5+ times in the past year	11	10.7			
Don't know/prefer not to respond	3	2.9	Missing	8	7.8

Table D8. Use of distributions from other organizations

Missing	5	4.9		

Table D9. Demographics of respondents who used distributions from other organizations

		Did n	ot use	Did	use	Pearson chi-s	quare test
		N	%	Ν	%	Significance	Correlation
Gender	Woman	40	75.5	31	86.1	p=.220	<i>φ</i> =130
	Man	13	24.5	5	13.9		
Age	20-39	13	24.5	8	24.2	<i>p</i> =.665	<i>V</i> =.135
quartile	40-59	15	28.3	7	21.2		
	60-69	13	24.5	12	36.4		
	70+	12	22.6	6	18.2		
Education	HS or less	17	31.5	8	21.6	p=.256	V=.211
level	Beyond HS	14	25.9	17	45.9		
	College degree	14	25.9	8	21.6		
	Advanced degree	9	16.7	4	10.8		
Race/	Black or African	45	83.3	32	88.9	p=.463	<i>φ</i> =.077
ethnicity	American ^a						
Adults in	1	27	50.0	9	25.7	p=.029	V=.281*
household	2	22	40.7	17	48.6		
	3-4	5	9.3	9	25.7		
Children in	0	32	60.4	17	50.0	p=.066	<i>V</i> =.250
household	1	12	22.6	4	11.8		
	2-5	9	17.0	13	38.2		

^{*a*} Other race/ethnicity categories are not included because cell sizes were too small

^b Reported with Yates continuity correction

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Table D10. Program experiences of respondents who used distributions from otherorganizations

		Ordinal		Collapsed		Pearson chi-square test	
		Ν	%	Ν	%	Sig.	Corr.
Food	Almost never	0	0.0	18	52.9	p=.067	<i>φ</i> =23
assistance	Occasionally	10	29.4				4
fits with	Sometimes	8	23.5				
dietary needs	Often	5	14.7	16	47.1		
	Almost always	11	32.4				

Satisfaction	Completely dissatisfied	1	2.8	6	16.7	<i>p</i> =.327	<i>V</i> =.187
with food	Somewhat dissatisfied	1	2.8				
assistance	Neither satisfied nor	4	11.1				
quality	dissatisfied						
	Somewhat satisfied	16	44.4	16	44.4		
	Completely satisfied	14	38.9	14	38.9		
Food	Never	3	15.0	9	45.0	p=.121	φ=.231
assistance	Occasionally	2	10.0				
covers for the	Sometimes	4	20.0				
month	Often	2	10.0	11	55.0		
	Almost always	9	45.0				

Correlations are computed only for the subset of respondents who reported use of food assistance (N=80).

^b Reported with Yates continuity correction

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Seven survey respondents discussed food distributions from non-church organizations. Organizations listed as having done food distributions in the past included Boys & Girls Club, Women Working with Women, Cone Park Library, and Gainesville Housing Authority. Suggestions for places to offer food distributions included community centers, schools, and public health facilities. The interview participant also mentioned the Partnership for Strong Families Resource Centers, listing Library Partnership by name. "But I've been with them, and they've given out like fresh vegetables, the families, like just fresh fruits to people" this participant explained. One focus group participant also described an unnamed food distribution program that had started as first-come, first-served but then switched to pre-registration during the COVID-19 pandemic and ended up serving fewer households as a result.

Backpack programs

Only 14 percent of respondents reported using backpack programs within the past five years. Thus, cell sizes were very small for many of the tests with demographics and program experiences. A binary logistic regression using number of children in the household, education level, and age as predictors was a significantly improved fit of the data over a model using no predictors (p=.007; Nagelkerke R²=.31). None of the three predictors was significant when controlling for the other two. There were no significant relationships with respondents' experiences with food assistance, though there was one that fell just short of statistical significance: backpack program participants tended to be less than 'completely satisfied' with the quality of food assistance (p=.06; φ =-.24).

	Ν	%	Binarized	Ν	%
Not in the past 5 years	79	76.7	No	79	76.7
Not in the past year	1	1.0	Yes	14	13.6
1-2 times in the past year	5	4.9			
3-4 times in the past year	1	1.0			
5+ times in the past year	7	6.8			
Don't know/prefer not to respond	4	3.9	Missing	10	9.7
Missing	6	5.8			

Table D11. Use of backpack programs

Table D12. Demographics of respondents who used backpack programs

		Did n	ot use	Dic	l use	Pearson chi-s	quare test		
		Ν	%	Ν	%	Significance	Correlation		
Gender	Woman	58	79.5	13	92.9	<i>p</i> =.418 ^b	<i>φ</i> =127		
	Man	15	20.5	1	7.1				
Age	20-39	14	19.7	7	53.8	Cell sizes too small to report			
quartile	40-59	19	26.8	5	38.5	results reliably	/		
	60-69	21	29.6	1	7.7				
	70+	17	23.9	0	0.0				
Education	HS or less	22	29.3	3	21.4	Cell sizes too s	Cell sizes too small to report		
level	Beyond HS	22	29.3	9	64.3	results reliably	/		
	College degree +	31	41.3	2	14.3				
Race/	Black or African	62	83.8	14	100.0	p=.231 ^b	<i>φ</i> =.173		
ethnicity	American ^a								
Adults in	1	27	37.0	6	42.9	p=.383	<i>V</i> =.149		
household	2	34	46.6	4	28.6				
	3-4	12	16.4	4	28.6				
Children in	No	43	60.6	3	21.4	p=.007	<i>φ</i> =.291**		
household	Yes	28	39.4	11	78.6				

^a Other race/ethnicity categories are not included because cell sizes were too small

^b Reported with Yates continuity correction

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Table D13. Program experiences of respondents who used backpack programs

Ordinal		Collapsed		Pearson chi-square test	
N	%	Ν	%	Sig.	Corr.

Food	Almost never	2	15.4	8	61.5	p=.113	<i>φ</i> =20
assistance	Occasionally	4	30.8				6
fits with	Sometimes	2	15.4				
dietary needs	Often	2	15.4	5	38.5		
	Almost always	3	23.1				
Satisfaction	Completely dissatisfied	2	15.4	10	76.9	<i>p</i> =.062	<i>φ</i> =23
with food	Somewhat dissatisfied	1	7.7				5
assistance	Neither satisfied nor	0	0.0				
quality	dissatisfied						
	Somewhat satisfied	7	53.8				
	Completely satisfied	3	23.1	3	23.1		
Food	Never	0	0.0	4	44.4	p=.677	<i>φ</i> =.125
assistance	Occasionally	2	22.2			b	
covers for the	Sometimes	2	22.2				
month	Often	3	33.3	5	55.6		
	Almost always	2	22.2				

Correlations are computed only for the subset of respondents who reported use of food assistance (N=80).

^b Reported with Yates continuity correction

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Six focus group participants discussed backpack programs, which had mixed reviews. On one hand, two participants felt that the poor quality of the foods that are offered limited the programs' success. One participant reported that foods were getting sent home and then wasted because they were unwanted, and another reported eating the food sent home with her son because he did not want to eat the prepackaged food. A third explained that larger households do not receive the same level of benefit that smaller households do since the programs mostly serve elementary schoolers:

> Are they taking into account how many kids are actually in the house? Because if you have someone in high school, one in middle school, two an elementary school, one in diapers or whatever, all those kids are not taken into account when they're sending home these backpacks. [...] So, I think that's also a factor, especially on the east side of Gainesville. (FG2.4)

On the other hand, two participants felt the backpacks were helpful, with one describing them as "a blessing for the families at my job" (FG2.2). The sixth participant seemed relatively neutral on the effectiveness of the program but explained, "The whole office [at Williams] was completely filled with backpacks. So I asked, 'What is that?' And they told me those backpacks go home to the kids on Friday so they'll have

food for the weekend! And it just really shocked me to know how many kids or families that are needing of those backpacks!" (FG2.5)

Student free meals

About a third of respondents (32 percent) reported using student free meals within the past five years. Unsurprisingly, using student free meals was significantly more common among younger respondents (p<.001; V=.51) and respondents with more children in their households (p<.001; V=.71). These two variables together explained much of the variation in use of student free meals according to a binary logistic regression (p<.001; Nagelkerke R²=.61). Plus, each factor was a significant predictor even when controlling for the other. There were no significant relationships between using student free meals and respondents' experiences with food assistance.

	Ν	%	Binarized	Ν	%
Not in the past 5 years	61	59.2	No	61	59.2
Not in the past year	0	0.0	Yes	33	32.0
1-2 times in the past year	10	9.7			
3-4 times in the past year	1	1.0			
5+ times in the past year	22	21.4			
Don't know/prefer not to respond	3	2.9	Missing	9	8.7
Missing	6	5.8			

Table D14. Use of student free meals

Table D15. Demographics of respondents who used student free meals

		Did n	ot use	Did	use	Pearson chi-s	quare test
		Ν	%	Ν	%	Significance	Correlation
Gender	Woman	45	80.4	26	81.3	p=.919	φ=011
	Man	11	19.6	6	18.8		
Age	20-39	6	11.1	15	48.4	<i>p</i> <.001	<i>V</i> =.514***
quartile	40-59	13	24.1	11	35.5		
	60-69	19	35.2	4	12.9		
	70+	16	29.6	1	3.2		
Education	HS or less	16	27.6	10	31.3	<i>p</i> =.652	<i>V</i> =.135
level	Beyond HS	18	31.0	13	40.6		
	College degree	16	27.6	6	18.8		
	Advanced degree	8	13.8	3	9.4		
Race/	Black or African	48	84.2	28	87.5	<i>p</i> =.913 ^b	<i>φ</i> =.045
ethnicity	American ^a						
Adults in	1	24	42.1	10	32.3	<i>p</i> =.148	<i>V</i> =.208
household	2	26	45.6	12	38.7		

	3-4	7	12.3	9	29.0		
Children in	0	43	78.2	3	9.7	p<.001	<i>V</i> =.708***
household	1	9	16.4	9	29.0		
	2-5	3	5.5	19	61.3		

^a Other race/ethnicity categories are not included because cell sizes were too small

^b Reported with Yates continuity correction

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Table D16. Program experiences of respondents who used student free meals

		Ord	inal	Collapsed		Pearson chi-square test	
		Ν	%	Ν	%	Sig.	Corr.
Food	Almost never	2	7.4	11	40.7	p=.714	<i>φ</i> =.047
assistance	Occasionally	4	14.8				
fits with	Sometimes	5	18.5				
dietary needs	Often	6	22.2	16	59.3		
	Almost always	10	37.0				
Satisfaction	Completely dissatisfied	2	6.9	6	20.7	<i>p</i> =.454	<i>V</i> =.157
with food	Somewhat dissatisfied	1	3.4				
assistance	Neither satisfied nor	3	10.3				
quality	dissatisfied						
	Somewhat satisfied	12	41.4	12	41.4		
	Completely satisfied	11	37.9	11	37.9		
Food	Never	5	21.7	12	52.2	p=.474	φ=.110
assistance	Occasionally	1	4.3				
covers for the	Sometimes	6	26.1				
month	Often	3	13.0	11	47.8		
	Almost always	8	34.8				

Correlations are computed only for the subset of respondents who reported use of food assistance (N=80).

^b Reported with Yates continuity correction

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Only three survey respondents spoke about student free meals. One commented that her granddaughter did not care for them, while another said their kids loved them. The third explained, "The surprising thing is that it does not appear as many families are taking advantage of this program as people may think. There may be a stigma attached to this[...]. We may all be part of SNAP program, but stigma to accept those meals for our kids during the summer" (P018). Three focus group participants also talked about student free meals, and much of this discussion centered around the poor quantity and quality of foods provided when students had to stay at home during the COVID-19 pandemic. One participant explained that in addition to the amount being so inadequate that her household food budget went up to compensate, the lack of both quality and variety made the food virtually inedible: "So, when all the food is white, or all the food is brown, it doesn't look appetizing, especially to our high schooler. They're not going to just eat it, because it's in this plastic bag. They're looking at it, and they're like, 'This is disgusting. This doesn't look good.' And like I say, it's not healthy. (FG2.4)

Another participant added, "we stopped going to the "meals for children" program because they weren't eating the free food. Which was so annoying to me." This participant also stated, "School food is very high carb, and I mean if y'all have a little meeting set up with nutrition services, dial me in, because I cannot believe—these snacks have way too much sugar in them to be the healthy alternative for kids" (FG2.2). However, a third focus group participant mentioned that having summer nutrition program sites in their neighborhood was useful.

WIC

Only 15 percent of respondents reported using WIC within the last five years. As a result, cell sizes were very small for many of the tests with demographics and program experiences. A binary logistic regression using number of children in the household, age, and education level was a significantly improved fit of the data over a model using no predictors (p<.001; Nagelkerke R²=.56). In this model, only having more children in the household remained a significant predictor (p=.003). Respondents who received WIC were also significantly less likely to be satisfied with the quality of the food assistance they had received (p<.001; V=.47).

Table D17. I	Use o	of W	IC
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	Ν	%	Binarized	Ν	%
Not in the past 5 years	78	75.7	No	78	75.7
Not in the past year	4	3.9	Yes	15	14.6
1-2 times in the past year	4	3.9			
3-4 times in the past year	0	0.0			
5+ times in the past year	7	6.8			
Don't know/prefer not to respond	4	3.9	Missing	10	9.7
Missing	6	5.8			

		Did n	ot use	Did	use	Pearson chi-s	quare test		
		Ν	%	Ν	%	Significance	Correlation		
Gender	Woman	58	79.5	11	78.6	<i>p</i> =1.000 ^b	<i>φ</i> =.008		
	Man	15	20.5	3	21.4				
Age	20-39	12	17.1	10	71.4	Cell sizes too s	mall to report		
quartile	40-59	20	28.6	2	14.3	results reliably	/		
	60-69	21	30.0	2	14.3				
	70+	17	24.3	0	0.0				
Education	HS or less	21	28.0	5	35.7	Cell sizes too small to report			
level	Beyond HS	22	29.3	7	50.0	results reliably			
	College degree	21	28.0	1	7.1				
	Advanced degree	11	14.7	1	7.1				
Race/	Black or African	62	83.8	13	92.9	<i>p</i> =.641 ^b	<i>φ</i> =.094		
ethnicity	American ^a								
Adults in	1	29	39.2	5	38.5	<i>p</i> =.065	V=.251		
household	2	35	47.3	3	23.1				
	3-4	10	13.5	5	38.5				
Children in	No	46	65.7	1	6.7	<i>p</i> <.001	<i>φ</i> =.453***		
household	Yes	24	34.3	14	93.3				

Table D18. Demographics of respondents who used WIC

^{*a*} Other race/ethnicity categories are not included because cell sizes were too small

^b Reported with Yates continuity correction

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Table D19. Program experiences of respondents who used WIC

		Ord	inal	Colla	psed	Pearson chi-squa	are test
		N	%	Ν	%	Sig.	Corr.
Food	Almost never	1	6.7	8	53.3	p=.320	<i>φ</i> =130
assistance	Occasionally	4	26.7				
fits with	Sometimes	3	20.0				
dietary needs	Often	1	6.7	7	46.7		
	Almost always	6	40.0				
Satisfaction	Completely	2	13.3	7	46.7	p<.001	<i>V</i> =.473**
with food	dissatisfied						*
assistance	Somewhat dissatisfied	1	6.7				
quality	Neither satisfied nor	4	26.7				
	dissatisfied						



	Somewhat satisfied	3	20.0	3	20.0		
	Completely satisfied	5	33.3	5	33.3		
Food	Never	1	7.1	7	50.0	p=.661	<i>φ</i> =.068
assistance	Occasionally	1	7.1				
covers for the	Sometimes	5	35.7				
month	Often	2	14.3	7	50.0		
	Almost always	5	35.7				

Correlations are computed only for the subset of respondents who reported use of food assistance (N=80).

^b Reported with Yates continuity correction

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Three survey respondents mentioned WIC. The first reported that WIC had told them that certain foods like pork make you lazy. The second reported that WIC had helped them when they became newly divorced with two small children. A third mentioned that it was difficult being unable to use self-checkout with WIC and that the program should cover formula and water, not only formula.

Five focus group respondents mentioned WIC. Two participants talked about the Farmers Market Nutrition Program (FMNP) vouchers, which emerged as a potentially helpful benefit nonetheless limited by the inaccessibility of farmers markets to many WIC recipients and the inability to spend the vouchers at the farms located on the east side of Gainesville. Several participants also commented on the limited and low-quality products that WIC recipients are allowed to purchase with their benefits. In some cases, this prevented households from being able to meet their special dietary requirements as well as expose children to healthier options from a young age. Some of their comments are included below:

They need to give them better food. Stop making it the King Vitamin and off-brand cheese. Let them get Sargento too. Let them get fresh vegetables. They want them. That'd be a postcard showing them how to cook it when they get to the house. But yeah, let them eat the regular food, like everybody else eats, right? Don't have the nondescript box. Don't make it like that. (FG2.1)

I remember being on WIC, and my daughter could not drink Carnation Good Start, and she had to have Enfamil with Iron, and I got less cans of milk because my daughter had to have a milk that would cost more. So still, I was coming out of my pocket. (FG2.4) I was on WIC and TANF stamps when my son was younger, and the parameters of what you can buy and what you can't really do limit people from being able to use them on healthier foods. (FG2.3)

What happened for our family was because of what we were limited to get through WIC—food stamps is a lot more open than that—but we had pickiness in our house. And the kids weren't used to getting the fresher things or the more fancy things, and the things we were eating were more processed and cheaper and lower-cost, and that's what they were used to, and so when we wanted to switch it to healthier and better options, it was a hard switch. And if we had had those options all along, they would have grown up knowing that. (FG1.3)

SNAP

Slightly less than half of respondents (43 percent) reported using SNAP in the past five years. The demographic factors significantly related to SNAP use included age quartile (p=.002; V=.42), education level (p<.001; V=.45), and number of children in the household (p<.001; V=.50). These three variables together explained much of the variation in SNAP use in a binary logistic regression (p<.001; Nagelkerke R²=.51). However, when controlling for number of children and education level, age was no longer a significant predictor. There were no significant relationships between use of SNAP and respondents' experiences with food assistance.

	Ν	%	Binarized	Ν	%
Not in the past 5 years	52	50.5	No	52	50.5
Not in the past year	4	3.9	Yes	44	42.7
1-2 times in the past year	9	8.7			
3-4 times in the past year	1	1.0			
5+ times in the past year	30	29.1			
Don't know/prefer not to respond	2	1.9	Missing	7	6.8
Missing	5	4.9			

Table D20. Use of SNAP

Table D21. Demographics of respondents who used SNAP

		Did not use		Dic	luse	Pearson chi-s	quare test
		Ν	%	N	%	Significance	Correlation
Gender	Woman	38	77.6	34	82.9	p=.525	<i>φ</i> =067

	Man	11	22.4	7	17.1		
Age	20-39	4	8.9	18	42.9	<i>p</i> =.002	V=.416**
quartile	40-59	14	31.1	9	21.4		
	60-69	14	31.1	11	26.2		
	70+	13	28.9	4	9.5		
Education	HS or less	10	20.0	17	40.5	p<.001	<i>V</i> =.454***
level	Beyond HS	11	22.0	19	45.2		
	College degree	20	40.0	3	7.1		
	Advanced degree	9	18.0	3	7.1		
Race/	Black or African	41	82.0	37	90.2	p=.263	<i>φ</i> =.117
ethnicity	American ^a						
Adults in	1	19	38.8	16	39.0	p=.910	V=.046
household	2	22	44.9	17	41.5		
	3-4	8	16.3	8	19.5		
Children in	0	36	76.6	13	31.7	<i>p</i> <.001	<i>V</i> =.502***
household	1	8	17.0	9	22.0		
	2-5	3	6.4	19	46.3		

^a Other race/ethnicity categories are not included because cell sizes were too small

^b Reported with Yates continuity correction

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Table D22. Program experiences of respondents who used SNAP

		Ord	inal	l Collapsed		Pearson chi-square test	
		N	%	N	%	Sig.	Corr.
Food	Almost never	1	2.7	13	35.1	p=.187	<i>φ</i> =.168
assistance	Occasionally	6	16.2				
fits with	Sometimes	6	16.2				
dietary needs	Often	8	21.6	24	64.9		
	Almost always	16	43.2				
Satisfaction	Completely dissatisfied	2	5.1	7	17.9	p=.543	<i>V</i> =.137
with food	Somewhat dissatisfied	1	2.6				
assistance	Neither satisfied nor	4	10.3				
quality	dissatisfied						
	Somewhat satisfied	13	33.3	13	33.3		
	Completely satisfied	19	48.7	19	48.7		
Food	Never	7	17.5	20	50.0	<i>p</i> =.100	<i>φ</i> =.316
assistance	Occasionally	3	7.5			b	
covers for the	Sometimes	10	25.0				
month	Often	3	7.5	20	50.0		

Almost always	17	42.5		

Correlations are computed only for the subset of respondents who reported use of food assistance (N=80).

^b Reported with Yates continuity correction

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

On the survey, comments about SNAP (11 respondents) were quite varied. Suggestions for improving the program included having people qualifying for free/reduced lunch also qualify for SNAP and helping SNAP recipients shop and prepare healthier foods. Experiences related to SNAP included not only receiving benefits but also helping others get SNAP service, avoiding the crowds at grocery stores on food stamp day, and discussing healthy food choices with the clerk/interviewer at SNAP. Challenges with accessing and using SNAP benefits included being excluded from receiving adequate funds due to also receiving social security, being unable to reach the SNAP office, and being unable to use SNAP to buy fruits and vegetables because they are inaccessible on the east side of Gainesville. Two survey respondents stated they felt the benefits they received were enough, and a third described sharing extra food with neighbors during times when the benefits were more than enough.

The focus group discussions about SNAP (6 participants) were slightly more patterned, though still varied considerably. Pandemic EBT was a relief for one participant, but another did not receive hers and had a hard time finding out why. Another found that their household's SNAP allotment went up during the pandemic because someone lost a job, but it still was not enough to cover their expenses. SNAP was much less limiting than WIC for one participant in terms of what they could buy with it, but another explained that people run out. Still another was altogether unable to apply for the program because she was experiencing houselessness and thus had no address where the SNAP card could be sent.

Fresh Access Bucks

Only nine respondents reported using Fresh Access Bucks within the last five years. Due to the resultant small cell sizes, no chi-square tests for independence were conducted with the demographic and program experience variables.

	Ν	%	Binarized	Ν	%
Not in the past 5 years	88	85.4	No	88	85.4
Not in the past year	5	4.9	Yes	9	8.7

Table D23. Use of Fresh Access Bucks

1-2 times in the past year	2	1.9			
3-4 times in the past year	1	1.0			
5+ times in the past year	1	1.0			
Don't know/prefer not to respond	1	1.0	Missing	6	5.8
Missing	5	4.9			

Table D24. Demographics of respondents who used Fresh Access Bucks

		Did not use		Dic	Did use	
		Ν	%	Ν	%	
Gender	Woman	67	79.8	6	85.7	
	Man	17	20.2	1	14.3	
Age	20-39	20	25.0	2	25.0	
quartile	40-59	22	27.5	1	12.5	
	60-69	23	28.7	3	37.5	
	70+	15	18.8	2	25.0	
Education	HS or less	25	29.4	2	25.0	
level	Beyond HS	30	35.3	2	25.0	
	College degree	19	22.4	3	37.5	
	Advanced degree	11	12.9	1	12.5	
Race/	Black or African	72	84.7	7	100.0	
ethnicity	American ^a					
Adults in	1	32	38.1	3	42.9	
household	2	37	44.0	2	28.6	
	3-4	15	17.9	2	28.6	
Children in	0	42	52.5	7	77.8	
household	1	17	21.3	1	11.1	
	2-5	21	26.3	1	11.1	

^a Other race/ethnicity categories are not included because cell sizes were too small

^b Reported with Yates continuity correction

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

Table D25. Program experiences of respondents who used Fresh Access Bucks

		N	%
Food assistance fits with	Almost never	0	0.0
dietary needs	Occasionally	4	44.4
	Sometimes	0	0.0
	Often	2	22.2

	Almost always	3	33.3
Satisfaction with food assistance quality	Completely dissatisfied	0	0.0
	Somewhat dissatisfied	0	0.0
	Neither satisfied nor dissatisfied	3	33.3
	Somewhat satisfied	2	22.2
	Completely satisfied	4	44.4
Food assistance covers for	Never	0	0.0
the month	Occasionally	1	16.7
	Sometimes	4	66.7
	Often	0	0.0
	Almost always	1	16.7

^b Reported with Yates continuity correction

* Significant at the 0.05 level

** Significant at the 0.01 level

*** Significant at the 0.001 level

One focus group participant mentioned Fresh Access Bucks:

Since my children were little, we were blessed with the WIC vouchers for the farmers market. And everybody wasn't taking advantage of that. And then, the Florida Organic Growers, or Fresh from Florida Program, they went that extra step and said, "Okay, if you spend your food stamp cards here, then we're going to give you double the credit for fresh food." Now, that's only shopping on Wednesday and Saturday, but if we're planning properly, that is a come-up. You could really feed your family well if you're strategic, if you have the energy, and in some cases, if you have the training. (FG2.2)

Appendix E

i) Community Engagement: Organizations Survey Respondents Listed

1000 Voices of FL AARP Aces In Motion African American Task Force Alachua County Community Action Agency Alachua County Educational Society Alachua County Empowerment Group Alachua County Library District Alpha Kappa Alpha American Legion Hall Belhne Cookman Alumni Association Bethel Seventh Day Adventist Church Black-on-Black Crime Task Force **Bland Community Families** Boys and Girls Club Boys to Men **British Club Brush of Kindness** Cedar Grove Homeowners Association City of Gainesville **Community Spring Community Weatherization Coalition Compassionate Outreach Ministries** Cone Park Community Garden Cone Park Library Cone Park Library Resource Center County Commission Delta Sigma Theta Equal Opportunity Advisory Faith Missionary Baptist Church Family First with UF Florida Council for Formerly Incarcerated Women and Girls Florida Rights Restoration Coalition Food Waste Recovery Program Friends of Bland Friends of Lincoln Estates Gainesville Baptist Church Gainesville Community Ministry Gainesville Housing Authority Good News Club GPD Summer Explore programs Grace Grows **GRACE** Marketplace Grassfire Greater Bethel A.M.E. Church Greater Duval Neighborhood Association **Greenhouse Church** Grove Park Community Church Honor Center for Veterans Howard Bishop Middle School Humana Health **IFAS Extension** Keep Alachua County Beautiful Meals on Wheels

Mount Pleasant UMC Mt. Carmel Baptist Church Mt. Pleasant Historic Society NAACP National Association of Black Social Workers Neighborhood @ McPherson Center North Central Baptist Church Nurses at Shands **Open Door Ministries Church** Partnership for Strong Families Passage Family Church Santa Fe College - East Gainesville Initiative School Board Smoky Bear Smooth Flavor Dancing Club SNAP program Southern Poverty Legal Counsel Springhill Missionary Baptist Church St. Francis House Star Centre Theatre Sugarhilll Third Bethel Baptist Church **Torchlighters Reentry Support** UF College of Nursing **United Methodist Women** United Way of North Central Florida University of Florida V.A. Hospital Veterans Administration Visionaires Williams Elementary Williams Temple Church Women Working with Women

ii) Community Engagement: Qualitative Coding Tree

Survey category	# of participant s
Personal involvement	66
Church	55
Volunteering	14
School-based	12



Neighborhood associations	11
Culture & history	40
Civic engagement	30
Planning and advising	15
Resource sharing	29
Food	16
Communication among neighbors	23
Sharing info about resources	18
	# of
	participant
Focus group category	S
Culture and history	6
Resource sharing	4
Communication	3

Appendix F

i) Transportation: Qualitative Coding Tree

Survey category	# of respondent
Proximity of food options (total)	50
Proximity of food options	42
Mobile retail	6
Distance from healthy options	4
Walking distance	4
Proximity to other destinations	3
Inaccessible locations	1
Delivery (total)	19
As a solution	7
Transporting food for others	7
Current use	3
Past experience	3
Public transportation (total)	13
Expand	5
Difficult or costly	4
Uses	4
Lack of personal vehicle (total)	10
Lack of personal vehicle	9
Car trouble	1
Gas	1
Volunteering personal transport (total)	8
Other barriers and facilitators (total)	8
Parking	4
Example solutions	2
Traffic	1
Curbside pickup	1

	# of participant
Focus group category	S
Proximity of food options	6
Public transportation	6



Loss of accessibility	4
Delivery	4
Uncertainty	3
Lack of personal vehicle	2
Trade-off	2

Appendix G

i) Gardening: Qualitative Coding Tree

Gardening codes: Survey	# of responden ts
Ways to contribute	28
Sharing knowledge and skills	8
Contributing supplies and resources	5
Establishing a new garden	4
Gardening at home	4
Promotion and advocacy	3
Sharing food from home gardens	2
Distributing food	2
Buying food from the garden	2
Planting and harvesting	2
Providing manual labor	1
Transporting people to the garden	1
Contacting community members	1
Finding employment at a garden	1
Cooking	1
As a solution	21
Barriers	11
Existing gardens	10
Training	10
Youth programming	10
Childhood experiences	7
Gardening codes: Focus Groups	# of participan ts
Barriers	9

Training	7
Youth programming	7
Existing gardens	6
Benefits	5
Limitations of gardens as a solution	4
Ways to contribute	4
Childhood experiences	2

Appendix H

i) Education and Nutrition: Qualitative Coding Tree

	# of	
Survey category	respondents	
Defining heal	thy	
Food categories	53	
Fruits and vegetables	52	
Meat	14	
Grains	8	
Other	7	
Things to avoid or		
moderate	34	
Sugar	10	
Additives	7	
Meats	7	
Fat	6	
Salt	6	
Fast food	5	
Fried foods	4	
Greasy food	2	
Calories	2	
Soda	2	
Production practices	32	
Fresh	20	
Unprocessed	8	
Organic	7	
Clean	4	
Natural	3	
Local	3	
Consumption practices	29	
	# of	
-----------------------	-------------	--
Survey category	respondents	
Defining healthy		
Food categories	53	
Fruits and vegetables	52	
Meat	14	
Grains	8	
Other	7	
Things to avoid or		
moderate	34	
Sugar	10	
Additives	7	
Meats	7	
Fat	6	
Salt	6	
Fast food	5	
Fried foods	4	
Greasy food	2	
Beverages	7	
Cooking methods	6	
Variety	5	
Balanced	4	
Salads	4	
Eating regularly	4	
Nutrients	19	
Nutritious	14	
Protein	4	

Survey category	# of respondents		
Diet's impact on health			
Dimensions of health	59		
Impact on health conditions	26		
Weight	16		
Energy	11		
Body system functioning	11		
Physical health	11		
Longevity	9		
Mental and emotional health	7		
Physical fitness	5		
Feeling better	4		
Resilience	2		

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Important or necessary	49
Important or necessary (general)	12
Big impact on overall health	26
Impacts everything	7
Especially important for the Black	
community	4
Changes with age	4
Unhealthy behaviors	10
Eating junk foods	4
Overeating/overindulging	3
Don't know	9
Educational needs and solution	ons
Topics	27
Gardening	14
Healthy eating	12
Cooking	8
Agriculture	4
Using resources	4
Audiences	15
Kids	8
Families	6
Parents	5
Students	5
Youth	3
Seniors	2
Low-income	2
SNAP/WIC recipients	2
Sites	9
Schools	4
Community centers	4
Online	3
Food retailers	2

Focus group category	# of participants	
Educational needs and solutions		
Topics	12	
Cooking	10	
Healthy eating	9	
Gardening	8	

Audiences	8
Kids	6
Parents	6
Students	5
Families	3
Youth	3
Adults	3
Sites	6
Schools	5
Community centers	3
Online	2







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Grace Grows Community Food Planning Project Technical Report