



*Image Credit: Steering Committee Member*

# LOWELL COMMUNITY FOOD ASSESSMENT

WRITTEN BY ALI JACOBS, FRANCEY  
SLATER AND EMILY LABOMBARD  
FOR MILL CITY GROWS

**2022**



# Acknowledgements

The 2022 Lowell Community Food Assessment has been produced by Mill City Grows and REACH LoWELL, a CDC REACH project at the Lowell Community Health Center. Additional funding was provided by the Greater Lowell Health Alliance and Farm Credit Northeast AgEnhancement.

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*Image Credit: Steering Committee Member*



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# Executive Summary



*Image Credit: Viviana Acevedo*

The 2022 Lowell Community Food Assessment was a collaborative project undertaken by Mill City Grows, INC, with funding, support and participation of the REACH LoWELL initiative and the Greater Lowell Health Alliance (GLHA). This assessment evaluates the food system in Lowell, MA, determines the food security of Lowell residents, and proposes solutions to barriers and challenges to accessing food. This assessment began in November 2020, primary source research was conducted throughout 2021 and closed in October 2021, additional public data was collected at the end of 2021 and the report was written in January and February 2022.

In creating this assessment we: collected public data; engaged a 7-member steering committee; collected 1,004 resident surveys; collected 23 surveys from emergency food providers; collected 19 surveys from local food producers; conducted 7 focus groups with Lowell residents; interviewed 20 key informants; and conducted an in-person inventory of 83 food retailers in Lowell. During the assessment, we worked with over 50 local organizations and partners to do outreach, administer surveys, and organize focus groups. All of our methods were specifically focused on receiving data from communities who have been historically excluded from access to resources, including but not limited to immigrants and refugees, youth, seniors, BIPOC communities, low income families, people experiencing chronic illness, and unhoused people.

We conducted this assessment to better understand what food security programming is working in Lowell, and what needs to be improved. This assessment also serves as a data set to help guide future policy, strategies, and projects at all levels of Lowell's government, economy and social services. Access to enough food that is supportive of positive health outcomes, culturally connected, affordable, and desirable is a critical factor for the physical and mental health of residents.



We centered this assessment on the food values of Lowell residents: affordability, time, freshness and nutrition. **Respondents indicate that fresh fruits and vegetables are the most important food they would like to access.** Focus group and interview data indicate that residents enjoy and rely upon the diversity of food available in Lowell, although they can't always find exactly what they are looking for in stores.

By far the **greatest barrier to food security in Lowell is affordability**, due both to the high cost of valued foods, and the low income of residents. Survey and focus group data also indicate that **lack of time to shop and cook, lack of transportation or proximity to retail food sources, and lack of access to desirable foods are also major barriers.** Residents additionally are interested in more food education and access to urban agriculture.

**The food system in Lowell is not adequately serving the needs of the community.** The availability of fresh produce in the city is less than respondents would like. Free food and benefits programs are difficult to access or suffer from inconsistent or inaccessible outreach efforts. Programs that are working well, such as farmers market coupons and meal delivery services, are underfunded and cannot serve the entire population that would benefit from them.

There are some clear recommendations from resident feedback. The most important recommendation is to improve programs that make valued foods more accessible to low income residents either by giving residents more money to purchase food, or by decreasing the cost of food, or both. Residents also want more fresh produce available through retail locations, as well as more access to culturally connected foods. Over half of survey respondents are either currently gardening or would like to learn; therefore increasing access to and education about urban agriculture is an important recommendation.

Residents are also interested in education about cooking, nutrition, meal preparation and planning. Finally, residents require more time, infrastructure and resources to be able to store and cook food that is desirable and supportive of positive health outcomes.

Mill City Grows plans to follow up on the learnings and recommendations within this Community Food Assessment. We will be establishing a Food Policy Council and asking organizations, businesses and government agencies, and residents in Lowell to commit to working together to implement the recommendations recorded here over the next 10 years.



# Background and Methods

## Definitions

### **BIPOC**

An acronym for Black, Indigenous, and People of Color, this is a term that is more inclusive than some other terms used to talk about these communities and specifically lifts up the experience of Black and Indigenous people who, especially in the United States, have been targeted by racism, genocide and other forms of active oppression by White colonial settlers.

### **Community Food Assessment**

A research study of a particular place that:

1. Gathers information about residents' perceptions of the food environment and their food shopping behaviors
2. Characterizes the community food landscape, to support better understanding of the various access points for foods that support positive health outcomes and opportunities therein
3. Informs community organizations, nonprofits and policymakers that want to improve healthy food access
4. Raises awareness of food system assets, deficits, & opportunities, and creates a platform that residents can use to advocate for effective policy and programs to meet community needs

### **Culturally Connected Foods**

Foods that are part of a particular ethnic community, religious tradition or geographical diaspora. These can include specific ingredients that are endemic to places in the world from which people have immigrated; spices or mixes of spices that are frequently used within a culture; or fully developed dishes or recipes that are unique to a particular culture or region. Culturally connected foods are not limited to any specific culture, however, some cultures have greater or more limited access to their culturally connected foods based on systems of power and oppression. Frequently, ethnic groups who are immigrating to the United States are forced to assimilate into "American" food culture, which is a fairly recent construct, and they can lose knowledge, access or the ability to continue their own food traditions.

### **Emergency Food**

Food provided at no cost to the recipient, usually via a food pantry, soup kitchen, or meals on wheels type program. In 1981, the USDA created The Emergency Food Assistance Program (TEFAP) to provide low-income Americans, including elderly people, with emergency food to supplement their diets. Emergency food programs have evolved over time into resources that many Americans rely on for survival, suggesting recipients are in a constant state of emergency (Shirvell, 2019).



## Food Apartheid

Compared to the commonly-used phrase “Food Desert,” Food Apartheid describes a food system that is not naturally occurring; rather is constructed and upheld intentionally by those in power and with vested interest in the unjust conditions created. Food Apartheid is the result of underinvestment in the food infrastructure in lower income communities and BIPOC communities, and causes negative health, education, economic, environmental and other outcomes for the affected communities. Redlining is a common element of Food Apartheid: it is the practice by which specific neighborhoods — usually poorer, and racially/ethnically diverse — are deemed unprofitable for real estate and business investment. Redlining, historically and currently, makes it nearly impossible for impacted communities to develop economically — within and beyond the food economy — to build wealth and wellbeing among residents. (Washington, 2022)

### **Food Assistance benefits or “benefits”:**

A collection of financial assistance programs for purchasing food that are typically government funded. These programs include, but are not limited to:

- **Supplemental Nutrition Assistance Program, SNAP** (federal) — program applicants must be US citizens, meet income requirements and conduct lengthy application processes. Enrolled participants are issued a debit card (Electronic Benefit Transfer, EBT card) that can be used at registered food retailers. The amount of benefits are based on the household income, size and other factors.
- **Women infants and Children, WIC** (federal) — provides healthy foods, nutrition education, breastfeeding support, and referrals to healthcare and other services to pregnant and breastfeeding women, and children under age 5. Massachusetts participants must live in state, have a household income at or below 185% of the federal poverty level, have at least one of the medical or dietary conditions listed in the WIC nutrition risk criteria, and be either pregnant, breastfeeding (up to one-year-post- partum), breast feeding and using formula for their infant (0-11 months old) and have children under the age of five years old (CTI, 2022).
- **Farmers Market Nutrition Program, FMNP**, also known as **Senior and WIC coupons** (federal) — packages of coupons issued to WIC participants and eligible seniors to be used at Farmers Markets, usually \$25/person for the whole season, running from August 1st - October 31st. Registered Farmers Market vendors can redeem the coupons at the end of the season for a lump sum.
- **Healthy Incentives Program, HIP** (MA only) — an automatic reimbursement program for anyone enrolled in SNAP. Participants receive \$40, \$60 or \$80 a month (based on household size) of immediate reimbursements to their EBT card when purchasing eligible fresh produce at any registered Farmers Market or Farm stand. This can also be used to pay for a Community Supported Agriculture (CSA) farm share or food box program.

## **Food Security**

The ability for a person to access enough food for their family that is:

- Easy to access financially and geographically
- Enough for everyone, every day
- Nutritious, supportive of positive health outcomes
- Familiar, culturally connected
- The food people want to eat

## **Food Sovereignty**

A concept developed by Via Campesina: a global movement defending peasant land and food rights, and brought to the World Food Summit in 1996 as a central tenet of their work. Food Sovereignty “is the right of peoples to healthy and culturally appropriate food, produced through ecologically sound and sustainable methods, and their right to define their food and agriculture systems.” (La Via Campesina, 2021)

## **Food System**

The complex network that produces, processes, transports and distributes food, made up of:

- Farmers, fisheries, ranchers
- Shipping and distribution
- Retail — Grocery stores, restaurants, farmers markets, bakeries, etc.
- Food you receive at institutions — schools, colleges, hospitals, nursing homes
- Manufacturing — ready-made foods, soups, crackers, cookies, everything packaged
- Food waste — what happens to food that is not eaten or manufactured
- Everyone who eats!

## **Industrial Agriculture Complex**

A close-knit relationship between agriculture, business and the government; describes how modern food gets manufactured and delivered from the farm to fork; A set of industries (enterprises) whose activities are directly or indirectly aimed at the production of food or other products produced from agricultural raw materials; A combination of several sectors of the economy aimed at the production and processing of agricultural raw materials and obtaining products from it, brought to the end consumer (Roell, 2022).

## **Settler Colonialism**

A form of colonialism which seeks to replace the original population of the colonized territory with a new society of settlers. As with all forms of colonialism, it is based on exogenous domination, typically organized or supported by an imperial authority. Settler colonialism is enacted by a variety of means ranging from violent depopulation of the previous inhabitants, to more subtle, legal means such as forced assimilation or devaluation of indigenous identity within a colonial framework (Roell, 2022).



## Standard American Diet

Often referred to as a “Western Diet”, the Standard American Diet (SAD) is characterized by high amounts of processed foods, refined carbohydrates and added sugars, refined fats, high fat dairy products and red meat (Lifestyle Medicine Institute, 2022).

## Systemic Racism

As defined by Dr. Camara Jones, systemic racism is “a system of structuring opportunity and assigning value based on the social interpretation of how one looks (which is what we call “race”), that unfairly disadvantages some individuals and communities, unfairly advantages other individuals and communities, and saps the strength of the whole society through the waste of human resources.” (Jones, 2016) Racism assigns power, opportunity, and value in a hierarchical manner based on the social construct of race.

“The system of racism has three impacts: First, racism unfairly disadvantages some individuals and communities. When we think or talk about racism at all in this country, this is what we see. But it is important to understand that every unfair disadvantage has its reciprocal unfair advantage. So the second impact of racism is that it unfairly advantages other individuals and communities. That’s the whole notion of unearned white privilege that we hardly ever talk about in this nation. The third, and perhaps most profound, impact is that racism is sapping the strength of the whole society by wasting human resources. When the brilliance in some of our communities is ignored and we’re not investing in the full education of our kids—because we don’t think there’s genius in the barrios or in the ghettos or on the reservations—that’s sapping the strength of our whole society.” (Jones, 2016)

Systemic Racism in the food system saps the strength of our society as it undermines BIPOC's access to high quality foods, the building blocks for health, vitality, and wellbeing among individuals and communities.

## Unhoused

Describes the status of individuals who do not have access to home stability, i.e. people who experience living on the streets, in shelters, group or transitional housing, or those who are living with friends and family temporarily.



*image credit: Viviana Acevedo*

# Lowell Demographics

Lowell, Massachusetts has a rich history, an increasingly diverse population, and a unique food culture. The area that now makes up Lowell was inhabited for thousands of years by the Abenaki, or people of the dawnland. Before the European conquest of the 17th and 18th centuries, the Abenaki people lived a mobile life, sustaining themselves by growing corn, beans, squash and other crops, and cooperatively managing large areas of forestland and coastline for fish and game. It's estimated that prior to colonization, the Merrimack River Valley supported around 12,000 people across 30 villages. Pawtucket Falls (now under the O'Donnell Bridge at Mammoth Rd.), was a particularly important hunting and fishing ground for native people along the Merrimack.

However, In the early 17th century, following a century or more of trading and fighting with Europeans, a series of devastating plagues killed more than 90% of the Abenaki and neighboring peoples, and destabilized their societies. Opportunistic English settlers, themselves often seeking a refuge from the oppressive sociopolitical systems of Europe, moved into lands which the weakened Abenaki communities could no longer defend. The Wamesit and Pawtucket communities of the Pennacook confederacy, the two indigenous communities located in current-day Lowell, were cheated out of or coerced into selling their land to colonist farmers as part of this process.

By 1800, the American Industrial Revolution was underway in Lowell, leading to a population and economic boom that lasted into the early 1900's. The jobs in construction and manufacturing that once drew people from the New England countryside, Canada, Ireland, Greece and other locations, died out in the 1920's, along with the entire textile industry in Lowell. As the city went through boom and bust economic cycles, different waves of immigrants from Europe, Central America and the Caribbean, Asia and Africa shaped Lowell's culture and population today.

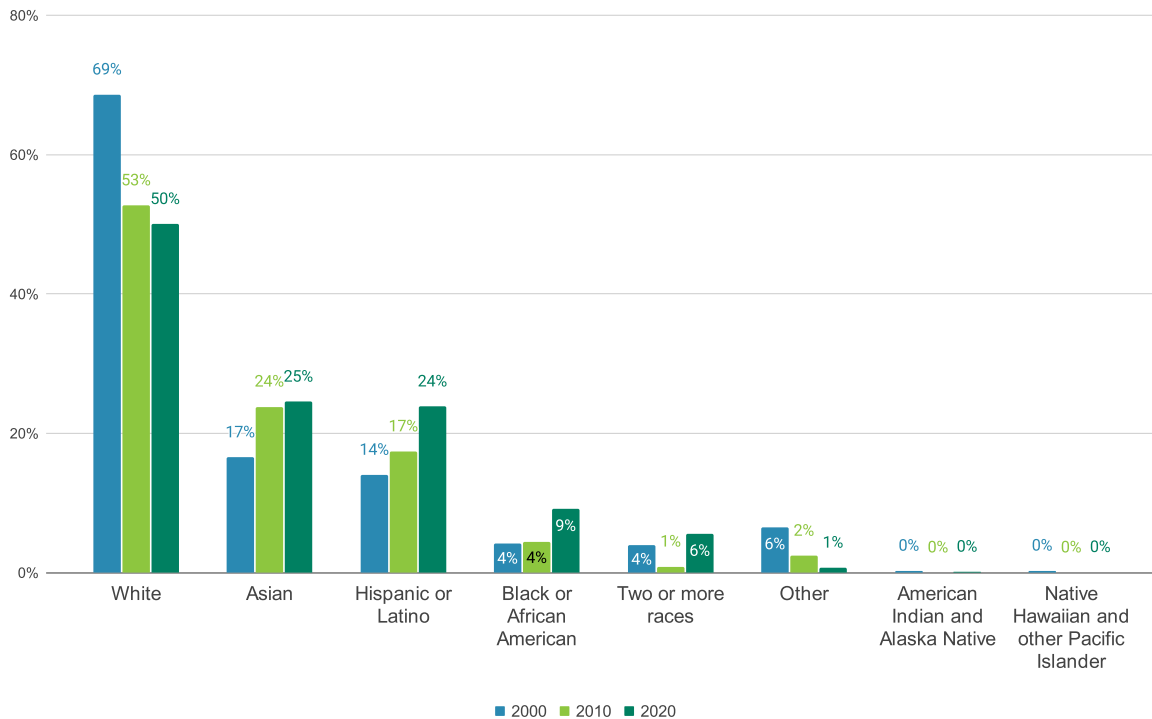
One of 26 "Gateway Cities" in Massachusetts, Lowell is a mid-sized city with a population of 115,500 people (US Census, 2020). The City of Lowell has always been an immigrant city, and this has become even more true in recent decades: today over 42% of the community speaks a language other than English at home (Lowell Community Health Center, 2020), and 28% were born outside the US (US Census, 2020).

In the past twenty years, Lowell's demographics have shifted significantly, with the White population diminishing from 69% of the population to 50%, and growth in Asian and Latinx populations (17% to 25% and 14% to 24% respectively). Lowell's Black and African American population has increased from 4% to 9% of the total population. Overall, the population grew by more than 10,000 people from 2000 to 2020.





## Lowell Demographics, 2000-2020

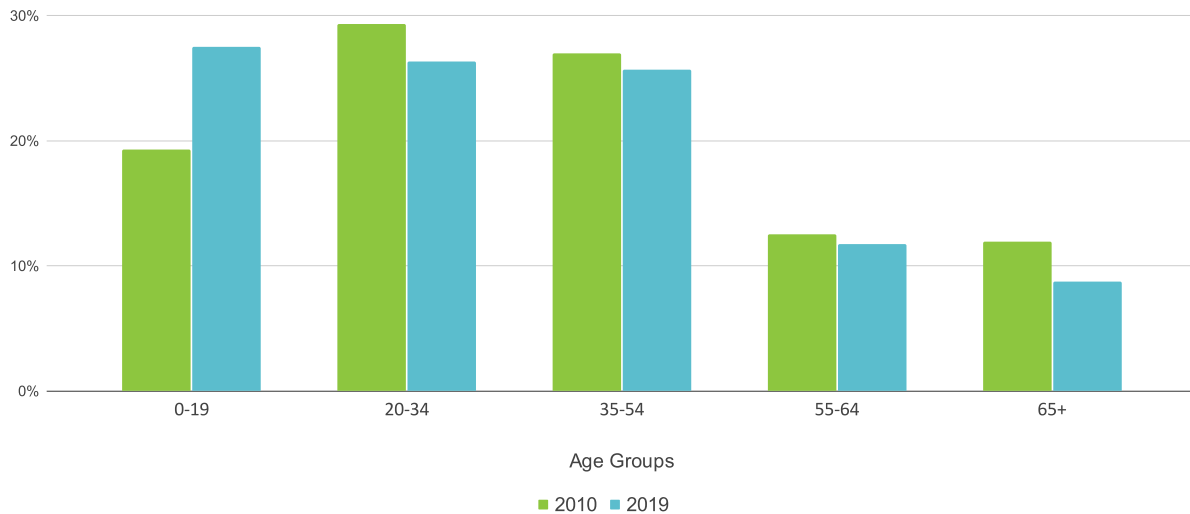


Within each racial/ethnic demographic, there is much diversity. Lowell is home to the second largest Cambodian community in the United States, and Khmer residents make up the majority of Lowell's Asian population. Vietnamese and Lao residents make up a smaller proportion of the Asian population. Within the Latinx community, the majority of Lowell residents identify as Puerto Rican, with smaller populations of Dominicans and Colombians (Granberry & Mattos, 2017). The Black community in Lowell is a mix of African Americans and a majority who identify as African, with over 20 different African countries represented (Kenyan, Nigerian and Liberian being the largest ethnic groups) (Lowell Community Health Center, 2020). There is also a sizable Portuguese speaking community in Lowell comprised of people from Brazil, the Azores, and continental Portugal.

Newcomers to Lowell continue to arrive, with a growing number of immigrants from countries including Afghanistan, Burma, Cameroon, the Democratic Republic of Congo, Iraq, Kenya, Liberia, and Sierra Leone. It is significant to note that many new Lowell residents come as refugees and asylees, fleeing areas where human rights are in jeopardy and where the conditions of war, torture, and trauma abound.

Lowell has become a younger city in the past ten years, with a significant increase in the 0-19 year old age group, and a decline in the 65+ age group.

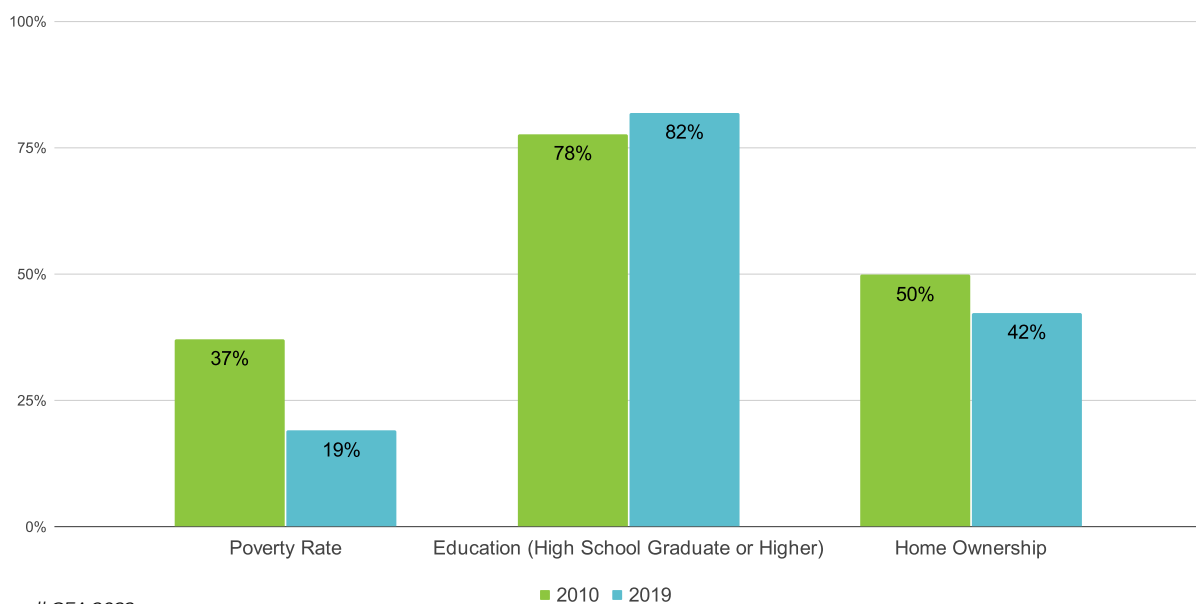
### Census Age Data



U.S. Census, 2010, 2019

Lowell residents had a median income of \$56,878 in 2020, up from \$38,000 in 2010. Likewise, the poverty rate has decreased to 19% in 2019, down from 37% in 2010. During this time, we see a small uptick in educational attainment rates, and a decrease in homeownership. This data does not reflect the economic impacts of the COVID-19 pandemic, which we do see in the employment data.

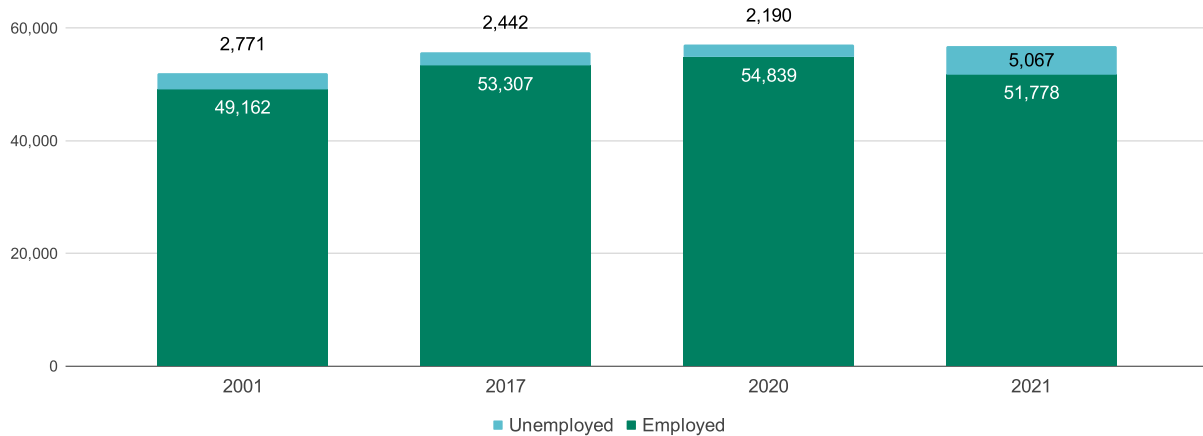
### Socioeconomic Factors



Lowell CFA 2022

The number of unemployed people in Lowell more than doubled between 2020 and 2021, due to social and economic conditions catalyzed by the COVID-19 pandemic.

### Employment Rates per Year



Lowell CFA 2022

Prevalence of diabetes in Lowell is 9.9%, compared to a state rate of 7.5%. Diabetes affects BIPOC communities most dramatically, with 12.8% Hispanic/Latinx, 14.6% Asian/Pacific Islander, and 15% Black/African Americans in Lowell diagnosed. In every instance, this is higher than the state rate (Lowell Community Health Center, 2020).



image credit: Edith Parekh

# CFA Background

The 2021 Lowell Community Food Assessment was a collaborative project undertaken by Mill City Grows, INC, with funding, support and participation of the REACH LoWELL initiative and the Greater Lowell Health Alliance (GLHA). Mill City Grows was founded in 2012, following a 2011 Community Food Assessment that revealed the community's demand for urban agriculture and increased fresh food access. The mission of Mill City Grows is to foster food justice by improving physical health, economic independence, and environmental sustainability in Lowell through increased access to land, locally-grown food, and education.

The purpose of this Community Food Assessment is to:

1. Understand how food security has changed since the last CFA was conducted in 2011
2. Better document the current capacity of the local food system
3. Amplify solutions and ideas from community members on ways to feed our community and build a more resilient food system

In 2020, Lowell Community Health Center launched REACH LoWELL, an initiative funded by the Center for Disease Control's REACH (Racial and Ethnic Approaches to Community Health) program. With a focus on the health of Lowell Asian and Latinx residents, REACH LoWELL embraces nutritious food access as a foundational strategy, and therefore fully supports the Lowell Community Food Assessment.

The Lowell Community Food Assessment was designed and implemented by Mill City Grows, with input and participation from REACH LoWELL Coalition Partners. The design of the Lowell Community Food Assessment embodies the principles of Community-Rooted Organizing (Smith et al., 2020):

- Centering the experience and expertise of those most affected by neighborhood conditions and focus on supporting the self-determination of community members
- Intentional bidirectional exchange of information with varied levels of engagement opportunities to allow residents to tailor their participation and time commitment
- Addressing the structural barriers that impact low-wealth BIPOC communities across the social determinants of health

The Lowell Community Food Assessment employed inclusive and participatory methods to build a sense of belonging and community empowerment in the food system. These values and principles were inspired by the Equitable Food Oriented Development (EFOD) Collaborative. EFOD is a development strategy that uses food and agriculture to create economic opportunities, healthy neighborhoods, and explicitly seeks to build upon community assets, pride, and power by and with the communities who have been historically excluded from accessing these resources.





The Community Food Assessment intends to catalyze equitable and relevant innovations in our local food system, which are co-created by Lowell residents who have been systematically excluded from existing food infrastructure and programs.

We recognize that food insecurity is associated with toxic stress and adverse, long-term physical and mental health outcomes, including depression, anxiety, PTSD, and increased exposure to violence. Recognizing food insecurity as a form of trauma, we utilized trauma-informed practices in all of our data gathering and resident engagement, and have centered recommendations within trauma-informed principles and policies.

## EFOD Values

- Equity- and Justice-first
- Place-based
- Use of market-based/business strategies
- Community leadership development/community organizing
- Community ownership

## CFA Guiding Questions

- What does food insecurity in Lowell look like and who is it impacting?
- What are the main programs, partnerships or initiatives, municipal or otherwise, that are effectively combating food insecurity in Lowell? What are the obstacles to accessing these programs?
- What are the main strategies families living with food insecurity utilize to put food on the table?
- What are the retail food access points and who do they best serve? Who is not served?
- What are the emergency food access points and who do they best serve? Who is not served?
- Are pop up markets, such as Farmers Markets, Mobile Markets, and others, positively impacting food security in Lowell?
- How are urban agriculture programs, such as community gardens and school gardens, positively impacting food security and community health in Lowell? Who is benefitting from these programs?
- What new programming, policy, infrastructure, or food distribution methods would residents like to see?
- What food security resources do the people of Lowell need to help manage their health?

*Developed in collaboration with REACH LoWELL collaborators, the CFA Steering Committee, and other members of the community.*

# CFA Structure

Key Partners made up an advisory committee that met regularly throughout 2021 and contributed significant staff and organizational resources towards this assessment and report, including outreach, survey administration, key informant interviews, and data and information sharing.

A Steering Committee composed of Lowell residents was convened and activated as the strategic and visionary drivers of the Community Food Assessment.

Comprised of individuals who live, work, own businesses, go to school, volunteer, raise children, grow food, and eat in Lowell, the Steering Committee included people representing Lowell's cultural, racial and ethnic diversity, and centered the lived experiences of residents most impacted by food insecurity, systemic racism, and negative impacts of social determinants of health. Despite targeted recruitment efforts, there were no male Steering Committee members. Further, due to limitations stemming from the COVID-19 pandemic, we were unable to recruit steering committee members from the Cambodian community. To remedy this gap in representation, we worked with Cambodian Mutual Assistance Association and Lowell Community Health Center to ensure participation and feedback from Lowell's Khmer community was represented in all other aspects of data gathering. All Steering Committee meetings were conducted in English, though members speak languages in addition to English, including Spanish, Vietnamese and French.

The Steering Committee met monthly from April - November 2021 and contributed insights, feedback and actions, including data gathering processes, survey question creation, as well as outreach and promotion of the assessment. The majority of our meetings were virtual, with several opportunities throughout the summer and fall to gather in person. Steering Committee members gathered to work together at one member's farm in Dracut, toured the Mill City Grows Greenhouse, and met to eat at local food businesses. Steering Committee members also created visual documentation of their own experiences in the food system via PhotoVoice projects, see below for a description of this work. Their images and words are used throughout this written report, as well as in public presentations and exhibits of the 2022 Lowell Community Food Assessment.

Steering Committee volunteers were provided with a cash stipend of \$500 and a wifi enabled tablet. The Steering Committee was instrumental in designing and implementing the 2021 Lowell Community Food Assessment, and above all, grounded the CFA in authenticity and accountability to the Lowell community.

## Key Project Partners

- Lowell Community Health Center
- Coalition for a Better Acre
- Cambodian Mutual Assistance Association
- Merrimack Valley Food Bank
- UMass Lowell School of Public Health
- Greater Lowell Health Alliance

# Methods

The Community Food Assessment data was gathered through a variety of methods and tools. As much as possible, we based assessment findings and recommendations on data gathered from primary sources. Understanding community food security, and the lack thereof, required that we focus efforts on gathering data directly from populations who have first hand experience navigating the food system. The prioritized populations include: low-income individuals, families with children, youth, seniors, immigrant and refugee families, residents chronically underserved due to race, ethnicity and culture, and residents living with chronic diet related disease. As the assessment was underway, we also made strong efforts to gather data from Lowell's unhoused population.

On the other side of the food system are the producers: farmers, food manufacturers, retailers and institutions — the sum of which are responsible for the food reaching our community. In order to better understand the landscape and limitations of local food producers, distributors and retailers, we gathered data from and about local farmers, farmers market vendors, institutional food service providers, emergency food providers, food wholesalers/distributors, food retailers, food manufacturers, and restaurants.

## Data Collection Tools & Methods

- Resident Survey
- Emergency Food Provider Agency Survey
- Key Informant Interviews
- Focus Groups
- Photo Voice
- Farmer and Food Producer Survey
- Food Retail Inventory
- Public Data

We utilized the following assessment tools and methods, prioritizing the groups listed above:

### Surveys of Lowell Residents

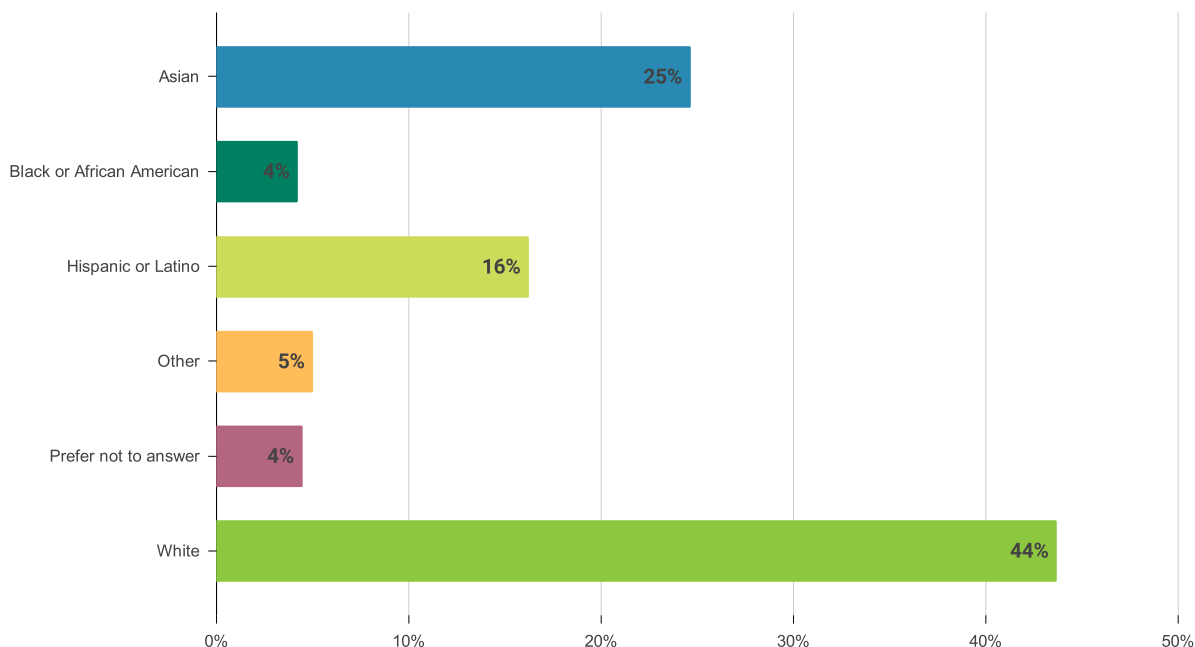
We collected 1,004 surveys from Lowell residents. The survey tool was developed collaboratively by Steering Committee members, Key Partners, UMass Lowell Public Health advisors and interns, and REACH LoWELL consultants. The survey, included in the Appendix, is comprised of 15 questions, including 2 open-ended questions and 3 demographic questions. Surveys were available in 9 languages: Arabic, English, French, Khmer, Lao, Portuguese, Spanish, Swahili, and Vietnamese. Surveys were administered: digitally via Survey Money; on paper by respondents, as well as administered by a third party; and digitally on tablets as administered by a third party.

## Third Party Survey Administrators

- Mill City Grows staff
- UMass Lowell Public Health student interns
- Lowell Community Health Center staff
- Cambodian Mutual Assistance Association staff
- Lowell Senior Center staff
- Coalition for a Better Acre Staff
- Dwelling House of Hope
- Life Connection Center



### What is your race/ethnicity?



Lowell CFA 2022

Best efforts were made to mirror Lowell population demographics with survey respondent demographics. However, we did not reach our target of Latinx residents, and we know that the majority of the Asian responses are from the Khmer community (therefore under-representing other Asian ethnicities). In many of the graphs in this report, we do not include Indigenous and Native Hawaiian responses, as both groups had only 7 responses, too small of a sample to be representative.

We acknowledge that focusing this assessment on low wealth communities, BIPOC communities, immigrant and refugee communities, and communities of people who are currently unhoused, meant that individuals were repetitively asked to respond to surveys and data collection requests. To encourage responses, and to recognize the effort of responding to repetitive extractive data collection requests on these communities, in-person survey administration in these communities was accompanied with a \$10 gift certificate to Market Basket. This incentive was not offered online. Surveys were also conducted, where possible, by members of the communities being surveyed. Survey responses were collected and analyzed on the Survey Monkey platform. Qualitative data from the open-ended responses were exported into NVivo for analysis and coding.




The survey was created by UMass Lowell Public Health student Samantha Daily-Malysa, with support from Public Health faculty. The survey was open to participants from July 15th - October 15th. Written survey responses in English and languages other than English were input into Survey Monkey by Mill City Grows staff and UML Public Health interns. Open response answers in languages other than English were either translated by MCG staff (Spanish), or by professional translation services and then entered into NVIVO software in English.

## In Person Survey Locations

- Mill City Grows Mobile Markets
- Cambodian Mutual Assistance Association
- Clemente Park
- Dwelling House of Hope
- Life Connection Center
- Lowell Housing Authority
- Rotary Park Community Garden
- West 3rd St Community Garden
- Hampshire St Community Garden
- Eagle Park Community Garden
- North Common Park Community Garden
- Dane St Community Garden
- Smith St Community Garden
- Armory Park Community Garden
- The Reilly Elementary School
- The Murkland Elementary School
- The Butler Middle School
- The Morey Elementary School
- The Daley Middle School
- The Lincoln Elementary School
- The Lowell Career Academy
- Lowell Community Health Center
- Bethel AME Church
- Calvary Baptist Church
- First United Baptist Church
- Hellenic Orthodox Church Holy Trinity
- Iglesia Critiana Ebenezar Asemblea de Dios
- Islamic Society of Greater Lowell
- Bombazo Market
- Bayon Market
- Market Basket
- New Asian Market
- Food Land
- Stop and Shop
- Indian Basket
- Hannafords

### Surveys of Lowell Emergency Food Providers

We collected 23 surveys from food pantries, food banks, and meal programs that serve Lowell residents. The survey tool was developed by MCG staff, UMass Lowell Public Health advisors and interns, and REACH LoWELL consultants. The survey, included in the Appendix, is comprised of 30 questions, including 9 open-ended questions and 2 demographic questions. Surveys were administered: digitally via Survey Monkey, as well as administered by a third party. Third party survey administration was done by UMass Lowell Public Health student interns and Mill City Grows staff.



Survey responses were collected and analyzed on the Survey Monkey platform. Qualitative data from the open-ended responses were exported into NVivo for analysis and coding.

### **Surveys of Food Producers and Farmers**

We collected 19 surveys from local farmers and food producers. The survey was developed by MCG staff and UMass Lowell Public Health interns. The survey, included in the Appendix, consists of 18 questions. Surveys were administered digitally via Survey Monkey.

Survey responses were collected and analyzed on the Survey Monkey platform.

An additional inventory was conducted of farms within 30 miles. This inventory cataloged their products, retail operations, location and contact information using information available online.

### **Key Informant Interviews & Focus Groups**

We conducted focus groups and interviews to go into more depth and collect more nuanced qualitative data. Due to COVID restrictions and concerns, in-person focus groups were difficult to organize; most focus groups were conducted virtually using video platforms. Often, we opted to conduct interviews in place of focus groups, as they were more easily done over the phone or through video meetings; the same prompts were used for focus groups and interviews.

We conducted 7 focus groups and 20 interviews. Focus groups and interviews were conducted by: Mill City Grows staff, Steering Committee Members, staff members of Key Project Partner organizations, and UMass Lowell Public Health students. Focus groups and interviews were conducted in English, Spanish, and Portuguese.

Interviews were conducted with individuals from multiple community and food-centric groups: hunger relief and emergency food agencies, institutional food service providers, public health agencies, food business owners, farmers, as well as diverse community members.

Focus group participants were primarily community members recruited through Mill City Grows, Key Project Partner organizations, Steering Committee members, and faith based entities. Community participants of focus groups were offered \$20 gift certificates to Market Basket in gratitude for their time and willingness to share their experiences, as well as in recognition of their willingness to respond to repetitive extractive data collection requests within their communities. Individuals who participated in focus groups as a function of their professional roles were not offered compensation.

Efforts were made to create environments for the focus groups and interviews that were culturally responsive to participants and validated their knowledge, experiences, and ways of knowing. Following the research of Rodriguez et al, “culturally responsive research practice necessitates creating a natural, empowering, and validating setting for participants” (Rodriguez et al., 2011). Specific strategies taken towards this goal include:

- Conversations were led in the languages of participants, by native speakers
- As much as possible, conversations were led by individuals known to participants
- Conversation leaders were well aware of, and in some cases, members of cultural groups included in conversations
- Steering Committee members and Key Project Partner staff members were trained in trauma informed practices and led conversations with an assets-based approach to build trust and develop a spirit of co-creation with participants

### **PhotoVoice**

CFA Steering Committee members participated in a visual documentation of their experience of the food system. The images and words produced through this Photo Voice project are displayed throughout this report, and are featured prominently in the public exhibition of the CFA findings. Steering members gathered photographs of their own food experiences during the summer months of 2021, and wrote or provided spoken commentary on the meaning of each image. The range of experiences and reflections is intriguing, and shows how amazingly universal yet personal food is in people’s lives.

### **Food Retail Inventory**

Community-level food availability data was gathered through a targeted food retailer inventory. UMass Lowell intern Timothy Cobb developed and administered a 26 question survey to gather information about neighborhood food retailers’ locations, offerings, accepted payment types, advertising/signage, parking and other factors affecting accessibility. 83 retailers were surveyed, with a focus on neighborhoods with high SNAP enrollment and low income.

### **Public Data**

In addition to primary data gathered across the community and food system, we used publicly available datasets on health, economic status, food subsidy eligibility and utilization, neighborhood assets, and other demographic information. Students, interns and faculty from UMass Lowell’s Public Health programs were instrumental in gathering data.

# Food Security

## Food Security Definition

Food Security is the ability for a person to access enough food for their family that is:

- Easy to access financially & geographically
- Enough for everyone, every day
- Nutritious, supportive of positive health outcomes
- Familiar, culturally connected
- The food people want to eat

## Issues/Barriers

Food insecurity manifests in many ways in Lowell. It looks like:

- people not having enough purchasing power to get the food they want and need
- people being unable to buy the food they want and need in locations that are accessible to them
- people making hard decisions about food quality and quantity, often getting food that does not align with their food values due to financial, time, market and other barriers
- retail stores not carrying cultural foods that are familiar to people
- very high usage of benefits and food assistance programming, and these benefits/assistance programs not being adequate
- people not being able to get foods that support positive health outcomes and wellbeing

When we surveyed Lowell residents (Lowell CFA, 2022) about what they're looking for when sourcing their food, we found that the following food attributes are valued:

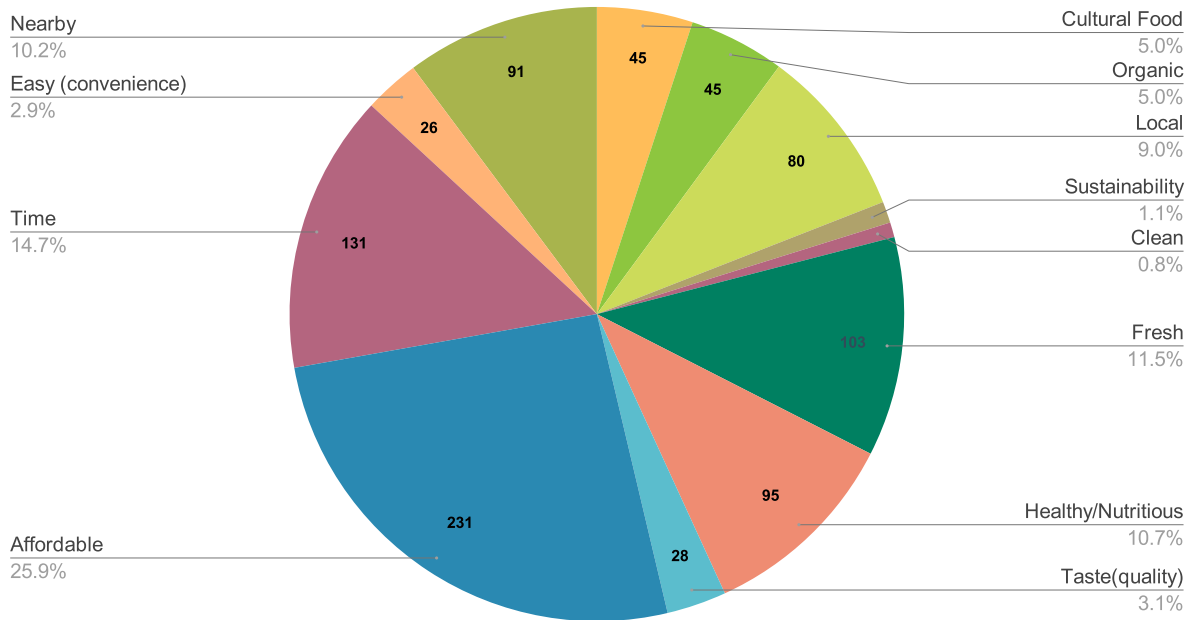
1. Close by, Convenient and Time Conscious (28%)
2. Affordable (26%)
3. Fresh, tasty, and nutritious (25%)
4. Organic, Clean, Sustainable, and/or Local (16%)
5. Culturally connected (5%)



*image credit: Steering Committee Member*



## Lowell Residents Food Values

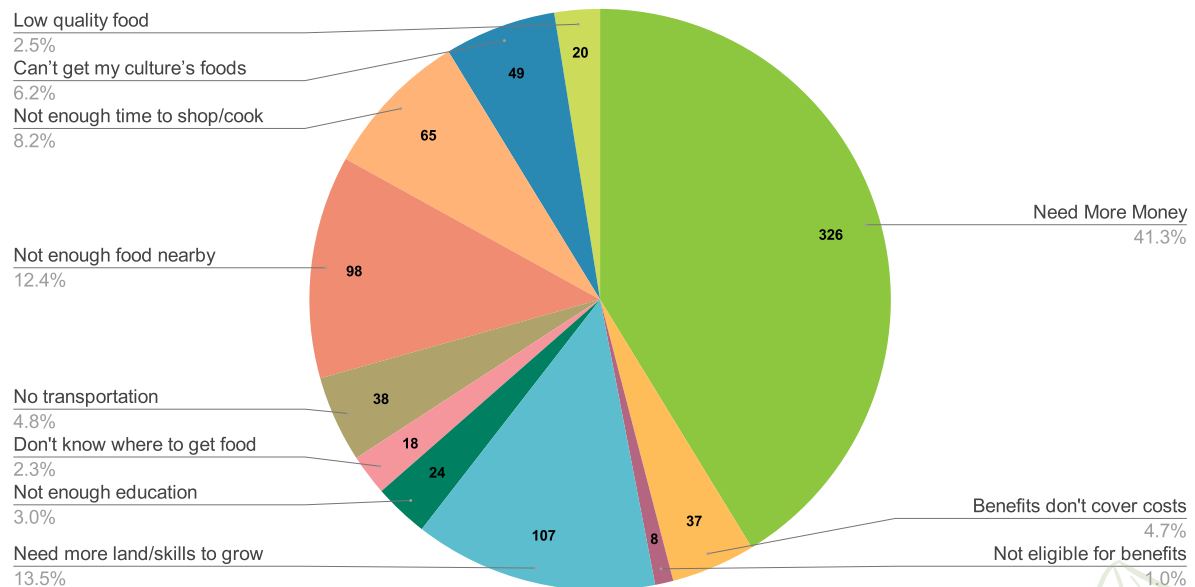


Lowell CFA 2022


The biggest barriers (Lowell CFA, 2022) to accessing foods that fit the needs and desires of residents are:

1. Purchasing Power — not enough money, benefits (47%)
2. Distance — Not enough food nearby, lacking transportation (17%)
3. Garden space and skills to grow own food (14%)
4. Food selection — quality and variety (cultural, special diets) not available (9%)
5. Time to shop and/or cook (8%)
6. Knowledge — don't know how or where to get food (5%)

## Lowell Residents Food Barriers



Lowell CFA 2022



Our CFA data (Lowell CFA, 2022) shows that food insecurity is associated with the following individual and household characteristics:

- Lowell BIPOC residents are more likely to experience food insecurity than White residents
- people from other cultures or countries are more likely to experience food insecurity than people from White settler colonial culture
- people without transportation are more likely to experience food insecurity than residents with reliable transportation
- people who cannot get food assistance benefits that they are eligible for are more likely to experience food insecurity
- people who are not eligible for food assistance benefits because they are not citizens, make too much money, or other reasons are more likely to experience food insecurity
- people who are relying on food assistance or emergency food are experiencing food insecurity
- residents with lower incomes are more likely to be food insecure

### **Systemic Racism**

The American food system is rooted in hundreds of years of racial violence, oppression, and injustice. From the lands seized from Indigenous peoples, to the enslaved labor of Black Africans, to the unfair and inhumane working conditions of immigrant and migrant farm labor, the legacy of food and farming in this country is imbued with racist ideology, policy, practice and impact that continue to the present day. Many of the root causes of barriers that Lowell residents, and Americans across the country, face can be attributed to the racist, exploitative and extractive motives and policies that underpin our food system and our entire capitalist economic system.

In FoodFirst's Dismantling Racism in the Food System series, authors Holt-Giménez and Harper connect the exploitation of BIPOC communities to the consolidation of power, wealth and resources within the food system:

“Calls to 'fix a broken food system' assume that the capitalist food system used to work well. This assumption ignores the food system's long, racialized history of mistreatment of people of color. The food system is unjust and unsustainable but it is not broken—it functions precisely as the capitalist food system has always worked; concentrating power in the hands of a privileged minority and passing off the social and environmental “externalities” disproportionately on to racially stigmatized groups” (Holt-Giménez & Harper, 2016).

Many of the findings within this report illustrate that negative impacts of historical racial atrocities are ongoing today within Lowell's communities of color.

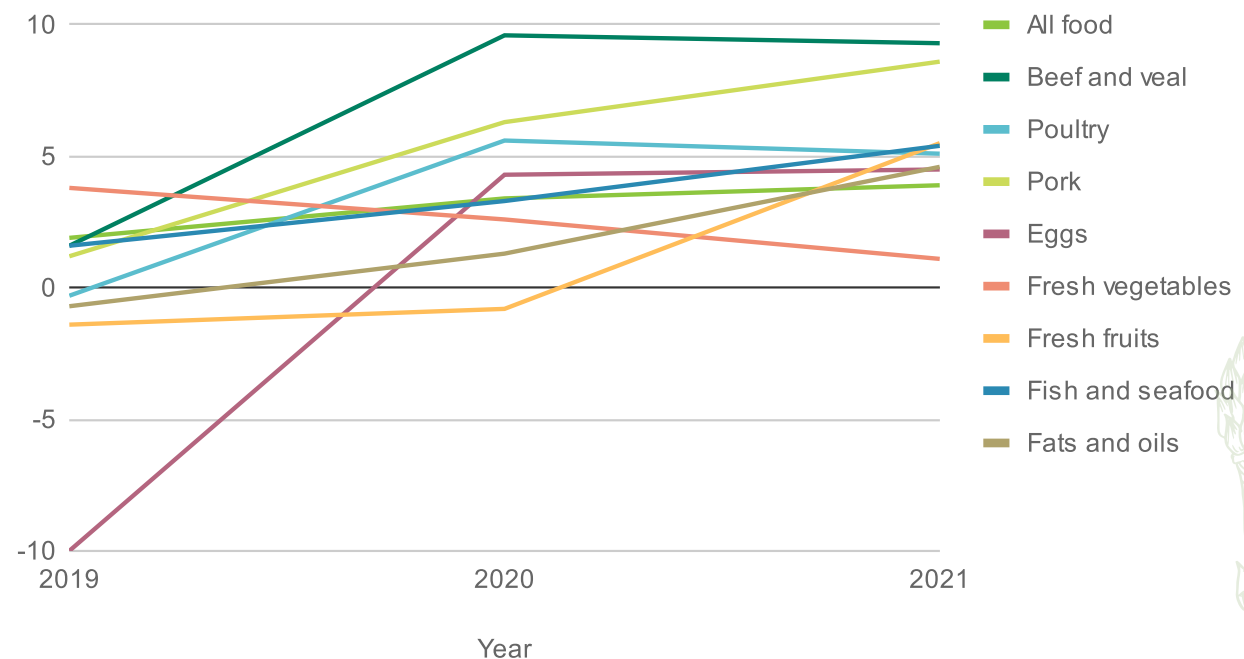
# Affordability

The high cost of living in Massachusetts has caught up with Lowell. Once an affordable “Gateway City,” where immigrants and lower income people could manage to afford the cost of living and even save for education, homeownership and other strategies that alleviate poverty, Lowell has now become unaffordable. Lowellians have 25% lower income than the state median income, and income that is 42% below the recommended Living Income for Middlesex County (MIT, 2022). 60% of Lowell residents are renters, and 55% of renters in Lowell are cost burdened, meaning they spend more than  $\frac{1}{3}$  of their income on rent (U.S. Census ACS 2010-2019). The average cost of infant child care in MA is \$20,913. This is more than in-state college tuition and 31% more than average Lowell rent (Economic Policy Institute’s State of Working America Data Library, 2020).

On top of all of these rising costs that families and individuals face in Lowell, we’ve also seen rapid increases in the cost of foods nationally. In 2021, supply chain issues and inflation have caused food prices to rise significantly compared to 2020: average food prices increased by 6.1%, with higher increases in meat (16.8%), fats/oils (9.1%), and eggs (8%) (USDA, 2022).

“It keeps getting more expensive to buy fresh fruit, veggies, and meat. To be able to afford more food I find myself having to buy processed foods with so many carbs and preservatives.”  
- Lowell resident, Hispanic/Latinx, age 36-50, household with children

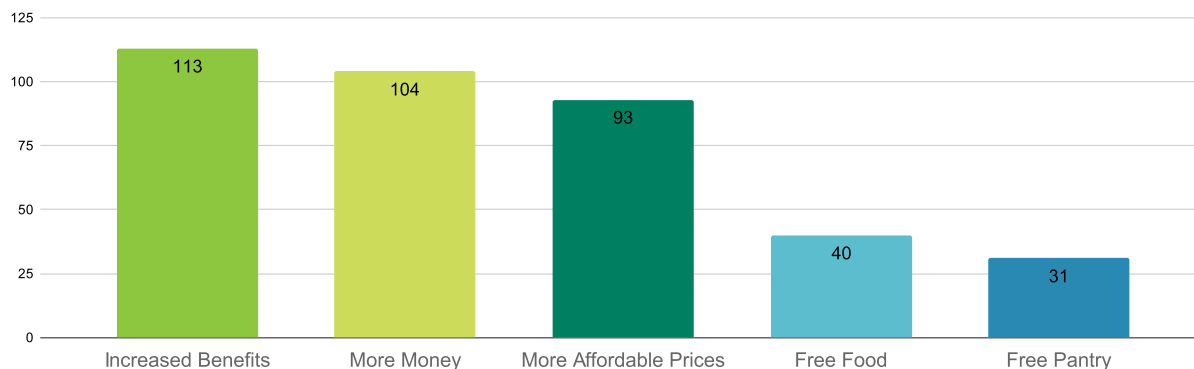
Annual Percent Changes in Consumer Food Prices



USDA 2022

When asked what would help them to afford the food they want to eat, more than 59% of survey respondents indicated that they needed more purchasing power, either in the form of more benefits, more money, or lower prices. A much smaller segment of the population is looking for more opportunities to access food for free from pantries and meal programs. Other studies support the efficacy of cash-based food security programs over food banks and food pantries (Loopstra, 2018).

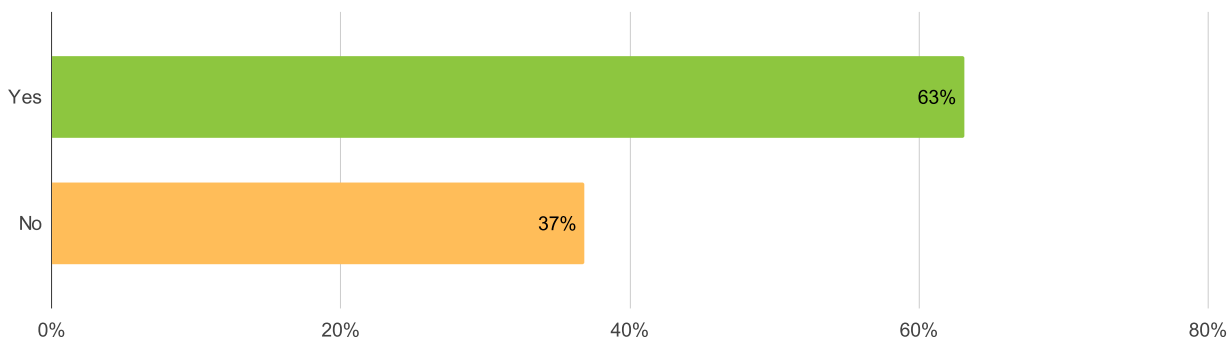
### What would help you to afford the foods you want and need all of the time?



Lowell CFA 2022

This crisis of affordability is not impacting all residents equally. CFA resident survey data (Lowell CFA, 2022) shows that racial/ethnic disparities are staggering. While 37% of the aggregate population reported usually not having enough money to buy the food they want to eat, closer analysis reveals divergent realities for different racial/ethnic populations in Lowell.

### Do you feel like you usually have enough money to buy the food you want to eat?

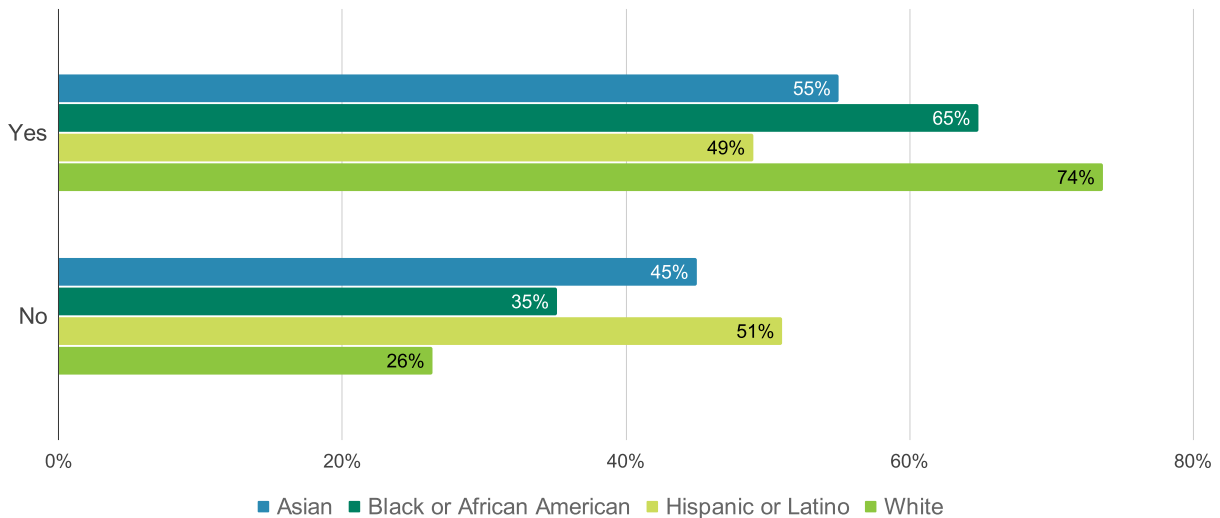


Lowell CFA 2022

While 26% of White respondents report not having enough money to buy the food they want to eat, almost twice as many of Hispanic/Latinx respondents (51%) report this hardship. Likewise, Asians (45%) and Black/African Americans (35%) are more likely to report being unable to afford food than White people in Lowell.



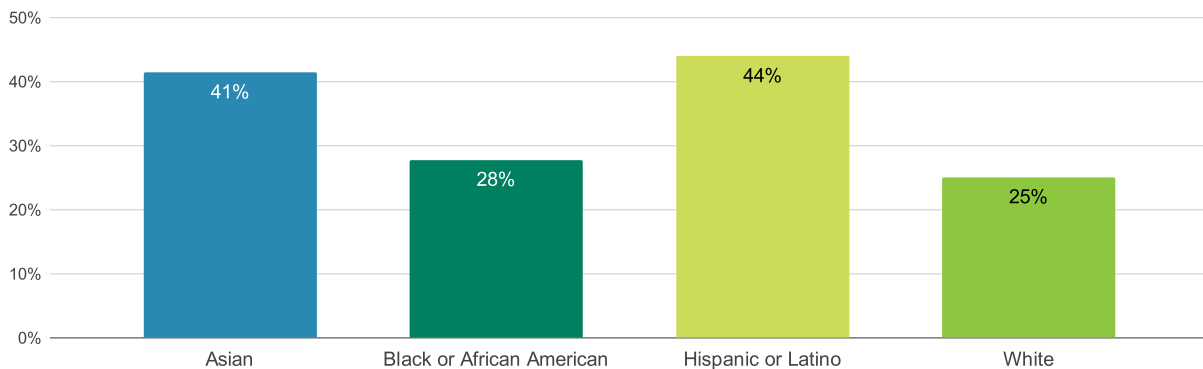
Do you feel like you usually have enough money to buy the food you want to eat?



Lowell CFA 2022

This trend is also shown in the graph below, which demonstrates that Asian and Hispanic/Latinx residents, compared to their White counterparts, are 33% more likely to have to make difficult decisions about spending their money, more often choosing necessities like rent or medical bills over food.

I have had to choose whether to spend money on food or to spend money on other necessities instead, like rent or medical bills



Lowell CFA 2022

Any approach to addressing the crisis of food affordability among Lowell residents must address these racial and ethnic disparities. According to the data, BIPOC residents are struggling to afford food at a higher rate than White residents, and therefore targeted and tailored programs must be implemented to reach residents whose challenges are greatest.



**Basing help on income isn't realistic and made me unable to qualify for more programs while struggling financially to make ends meet.**

- Lowell resident, age 51-65

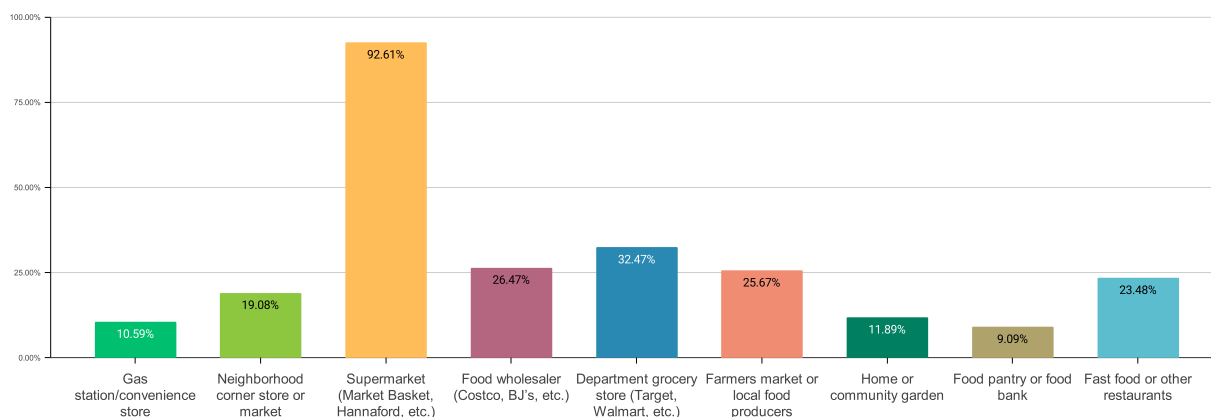


# Retail

Among the top barriers to food security reported by Lowell residents are distance to food source and food selection (Lowell CFA, 2022). Food retailers — like supermarkets, neighborhood grocery stores, convenience stores and restaurants — are the main source of the foods people shop for and eat every day. The locations of retail outlets, as well as residents' mode of transport to retailers, have a big impact on food security. Likewise, food selection and availability at food retailers, as well as the food access benefits available to shoppers and the retailers that accept them, determines what shoppers can buy and eat.

83% of respondents report primarily getting their food within the city of Lowell. There are a total of 594 food retail locations in Lowell, however only 136 sell grocery items (the remainder being restaurants, fast food, and liquor and other stores that sell snack-type foods). Of the 136 grocery food retailers, only 6 are full service supermarkets, where most residents (93%) report shopping most often.

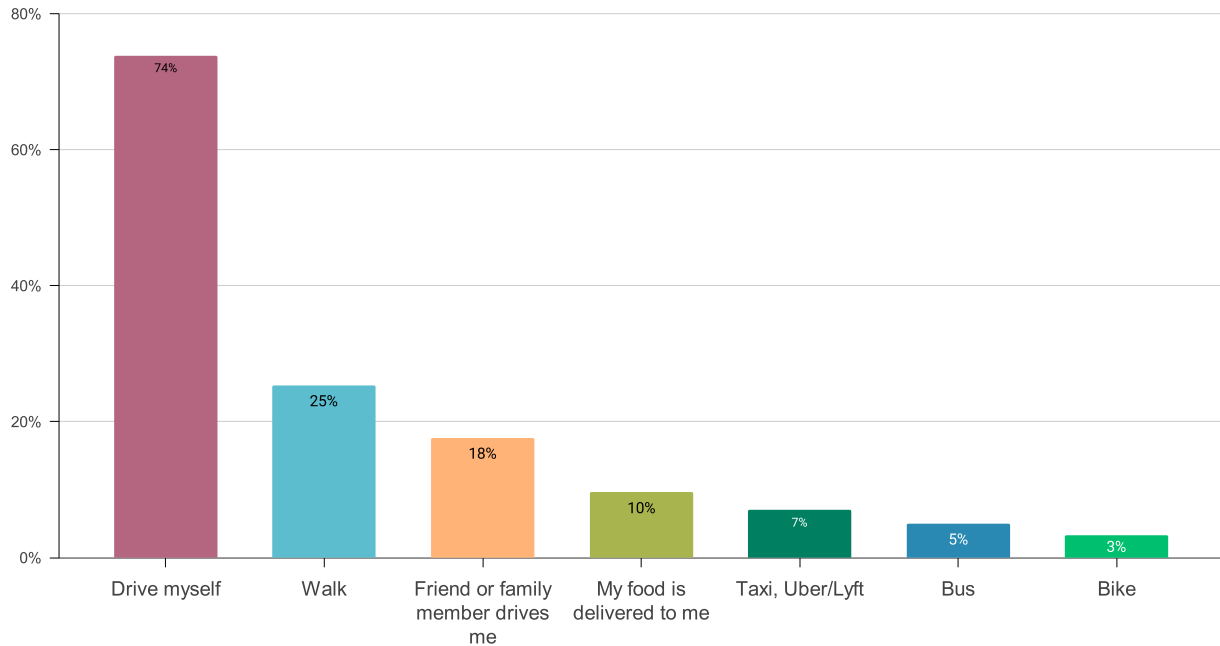
Please select 1 to 3 places or methods in which you most often access your food.



Lowell CFA 2022

When asked the usual ways they get to their food sources, 74% of respondents drive themselves, 25% walk, 18% are driven by a family member or friend, 10% have food delivered, and under 10% utilize taxi/ride share, public transportation, or bicycle. In focus groups, surveys and interviews, 49 respondents mentioned transportation as a major barrier to food access. Significant issues that arise as a result of not having transportation to and from a food source include: increased reliance on corner stores or convenience stores, many of which lack fresh produce; not being able to bring home large quantities of food at a time meaning residents without transportation need to go to their food source more frequently; frozen foods thawing en route; lower access to culturally connected foods; limited choices; higher costs at smaller markets compared to some grocery stores; lack of childcare limiting when residents can get food; and no delivery supported at lower cost grocery stores like Market Basket.

How do you usually get to the place where you get food?



Lowell CFA 2022

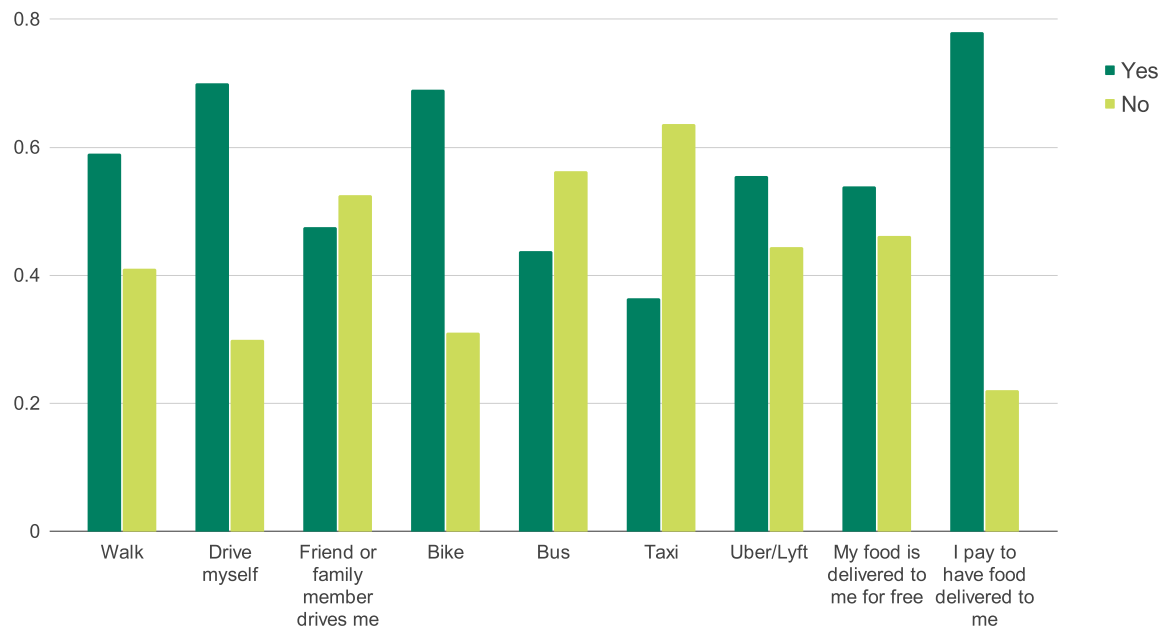
In the chart below, survey data shows the correlation between transportation modes and food affordability. It's important to note that individuals who rely upon public transportation, paid rides, and rides from family and friends are less likely to be able to afford food than those with their own vehicles, those who walk, those who bicycle, and those who pay for food delivery.

“ **My neighbors are always asking for rides to the grocery store or people to go get food for them because they have to watch the kids. A lot of people here don't have cars. Better bus service might help, and if the buses ran later.** ”  
- Lowell resident, age 51-65

”



Do you feel like you usually have enough money to buy the food you want to eat?



Lowell CFA 2022

When asked about the kinds of foods they have access to, the following responses are revealing:

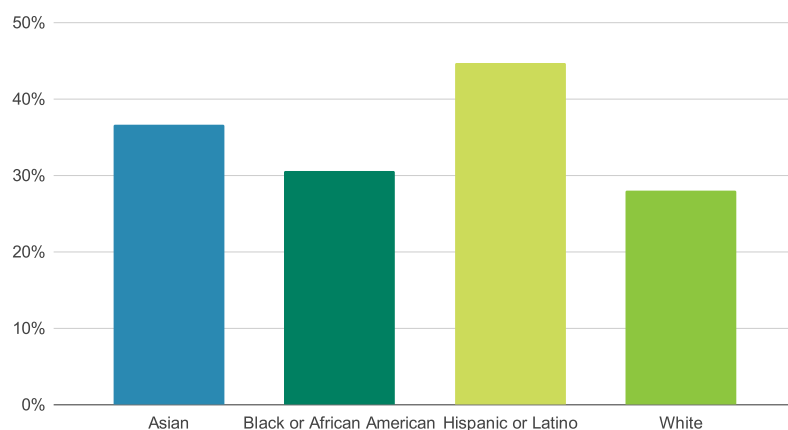
- 65% report that they have access to and can easily find food that is nutritious and healthy
- 65% report that they can easily find the foods they like to eat in their culture/tradition
- 64% report that they could afford the food they like to eat in their culture/tradition

Conversely, 35% of aggregated respondents are not finding easy access to food that is supportive of positive health outcomes, or food from their culture and tradition. If they are finding culturally connected foods, many are unable to afford it. Racial and ethnic disparities are present in this response, as illustrated by the chart below.

“ **Being able to have transportation to markets. Without that we will not be able to access the best quality food possible.**

- Lowell resident, Spanish speaking focus group

I have had enough food for my household every day, but not the type of food we would like to eat



Lowell CFA 2022

Within these data points, racial disparities are present: in each question, White residents' responses are 10-30% more advantaged than Asian, Black, and Hispanic/Latinx respondents (Lowell CFA, 2022).

There were 92 references to not having enough access to culturally connected foods in focus groups, interviews and survey responses. The majority of these responses indicate a desire for a larger selection of culturally connected foods at supermarkets and grocery stores. Respondents also ask for more culturally connected food options at emergency food providers and institutions.

“ I cannot find roots like yuca or malanga. I love cacti, but I cannot find them at my local supermarkets. I have to go to the local Asian markets, but they are really expensive. Meanwhile, I visited New York, I went to a local Hispanic market and I felt at home. The street foods tasted the same as back home and I found Ecuadorian foods.

- Lowell resident, Spanish speaking focus group ”



Image credit: Steering Committee Member

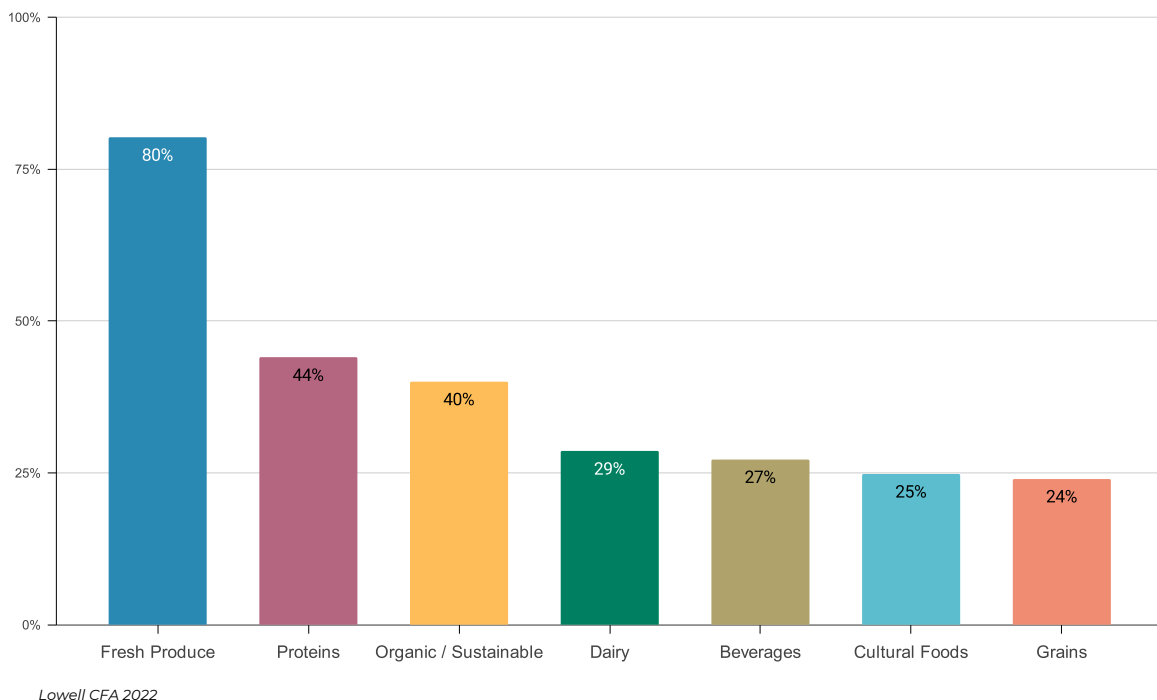


Many respondents indicated that they go to specific stores to find culturally connected food, and that some of these stores are not in Lowell, with one respondent indicating they had to go to New York City to find the food connected to their Ecuadorian culture. Another frequent issue raised by respondents is that when they are able to find culturally connected food, it costs more than typical American food. Respondents from many different cultures called attention to the fact that even if there is food available from a specific region, such as Southeast Asia, Latin America or Africa, there might not be food available from their specific country. Many respondents listed fresh produce from their culture as a significant piece of their cultural foods that are missing in the local food system.

“ **Tropical fruits and veggies that are a big part of traditional diet in Africa, Caribbean. People are not familiar with spaghetti and American staples. People have never seen canned foods in their lives, what are we supposed to do with that? Part education, part information, but there’s also the reality that people want to eat food that looks like it came out of the ground.**  
- Community Health Worker, Lowell Community Health Center ”

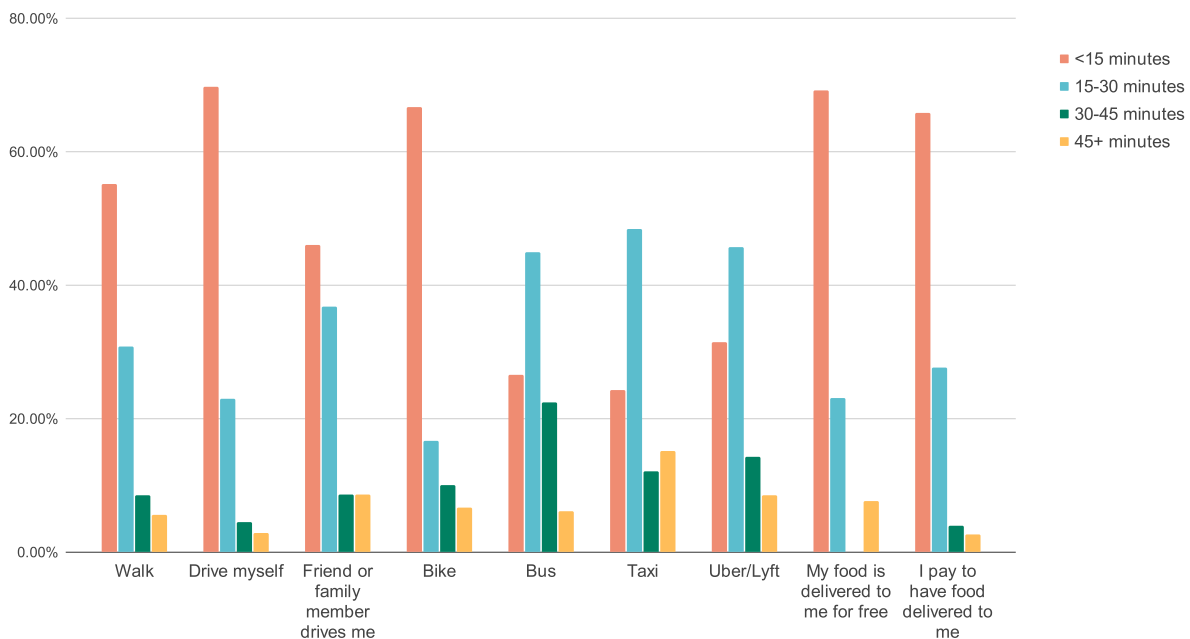
According to resident survey data, the top three foods that people want to eat are: Fresh Produce (80%), Proteins (44%), and Organic or Sustainably produced foods (40%) (Lowell CFA, 2022).

Are there any types of foods you would like to eat or have more of in your household? Select all that apply.



The combined data suggest that while supermarkets may provide the most selection of foods in one location, they are not meeting the food needs of residents looking for specific cultural foods and/or nutritious foods. Likewise, supermarkets are fewer in number, and their locations are not necessarily correlated with population density. For residents who do not have access to a car and live farther than walkable distance to supermarkets, these retailers are out of range. We found that people who do not have access to their own vehicles take longer to get to the grocery store, generally.

How long does it usually take you to get to the store to get food (one-way)?



Lowell CFA 2022

We also found that residents who do not drive themselves are 150% more likely to shop at neighborhood markets than those who do drive themselves. Neighborhood markets provide an important source of cultural and ethnic foods that are not available at larger food retailers. Many respondents in focus groups and interviews reference shopping at these stores in addition to supermarkets to find specific food items. Many of these independent stores are owned by immigrant families and carry fresh and pantry food items that shoppers seek. While these markets provide an important source of highly valued foods, the stores are often limited in size and inventory and therefore shoppers must visit multiple retailers to find everything they are looking for. This creates a logistical challenge that many shoppers cannot reconcile: time and transportation limitations do not allow them to visit multiple retailers on each shopping trip to find everything on their lists.

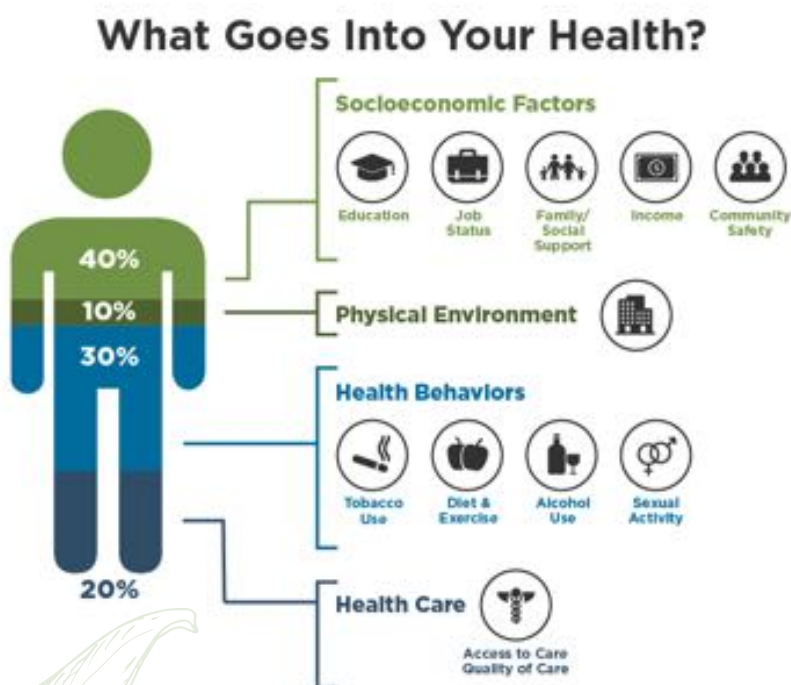


# Quality of Life

Quality of Life is a broad concept that is influenced by an individual's financial status, employment, housing, environment, health, education, time, social belonging, and safety. Many Quality of Life factors are deeply impacted and correlated with food security. CFA data points to time, energy and home infrastructure as major barriers to food security.

We know that health and wellbeing are major components of Quality of Life. Chronic diseases, if not managed, can greatly reduce individuals' and their households' quality of life. This is the reality for too many Lowell residents: Lowell has higher rates of diabetes than Massachusetts state levels. The rates among residents of color are higher still: compared to Lowell's average of 9.9%, Latinx rates are 30% higher, Asian/Pacific Islander rates are 47% higher, and Black/African American rates are 52% higher than the average.

Depression, post-traumatic stress syndrome (PTSD), and other mental conditions are especially pronounced among Lowell's significant refugee and immigrant populations. These communities are vulnerable to psychological distress due to war, impoverishment, military dictatorships, torture, trauma and other often appalling conditions experienced in their home countries. Among refugees, social isolation also contributes to levels of depression and poor health (Lowell Community Health Center, 2019). A 2005 study found that even after 20 years in the U.S., Cambodian refugees have high rates of PTSD (62%) and depression (51%) compared to the adult Southeast Asian population in Lowell (Marshall GN, et al. 2005).



Source: Institute for Clinical Systems Improvement, Going Beyond Clinical Walls: Solving Complex Problems (October 2014)

Adapted from The Bridgespan Group

According to Social Determinants of Health models, 80% of factors that influence a person's or a community's health are rooted in the environment, socioeconomic factors, and behaviors (Berkowitz, 2017). Food is a factor in each of these areas: whether or not a person has access to food they can afford, food that is grown healthfully, and food that they want/need to eat has a significant impact on overall health, wellbeing and quality of life. In other words, diet and food security determine health outcomes.

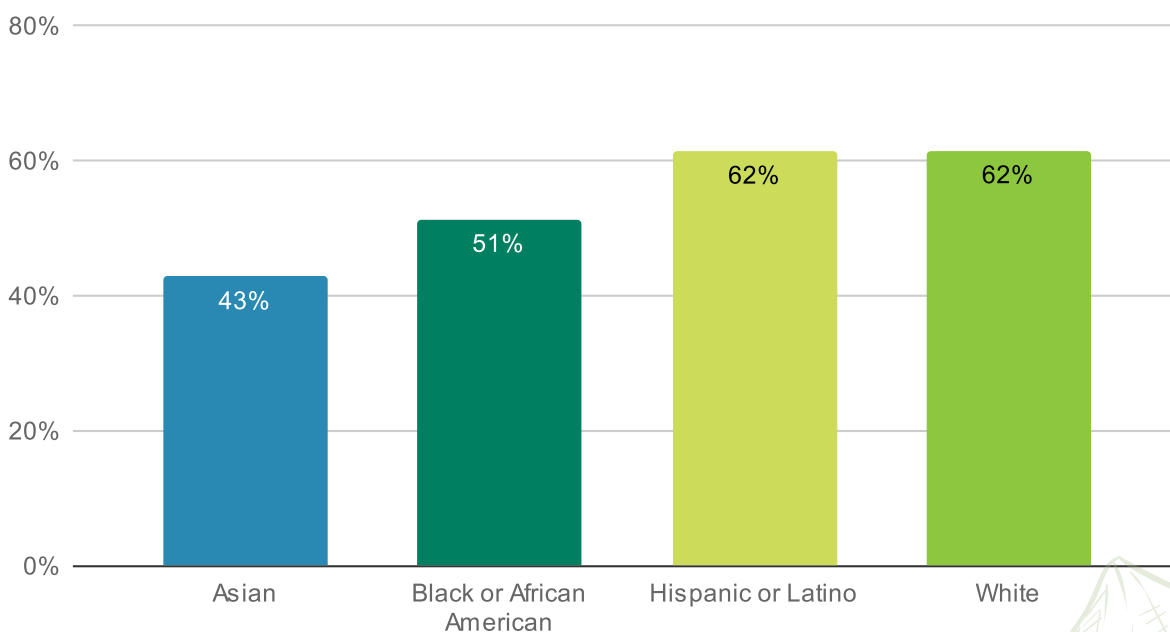
This Community Food Assessment is nestled into the multi-year CDC-funded REACH LoWELL project, and our goal was to gain insights into how food security affects the health and wellbeing of community members most impacted by chronic disease. However, due to the overwhelming impact of COVID-19 on the health care system, the community, and the research topic itself, we were unable to conduct specific focus groups and interviews with chronic disease patients. Fortunately, we were able to conduct two focus groups with health care professionals despite their incredibly busy schedules.

“ **Try to go to Market Basket to find healthy foods, but it's difficult to find time. Wake up really early, but I mostly buy frozen veggies because it's easier. When there's no time, going to the fast food.**  
- Lowell resident, Colombian focus group ”

In the aggregate data, we came across several quality of life topics (Lowell CFA, 2022). In focus groups, interviews and survey responses, 82 respondents highlighted time and energy as barriers to food security. People expressed the need for more time to access food, plan meals for the week, and prepare and cook food. This commonly cited lack of time results in a range of negative outcomes: from cooking the same things week after week, to cooking less healthy meals than would be desired, to not having the time or energy to cook at all, to relying on fast food, restaurants or frozen meals. Residents also commented that sometimes the quality of food they were able to access suffered if they didn't have enough time to seek out the right ingredients.

On average, 55% of survey respondents report having enough time to cook. Again, we see the racial disparity between White residents and Black and Asian residents, who reported 10% and 20% lower satisfaction rates than White counterparts.

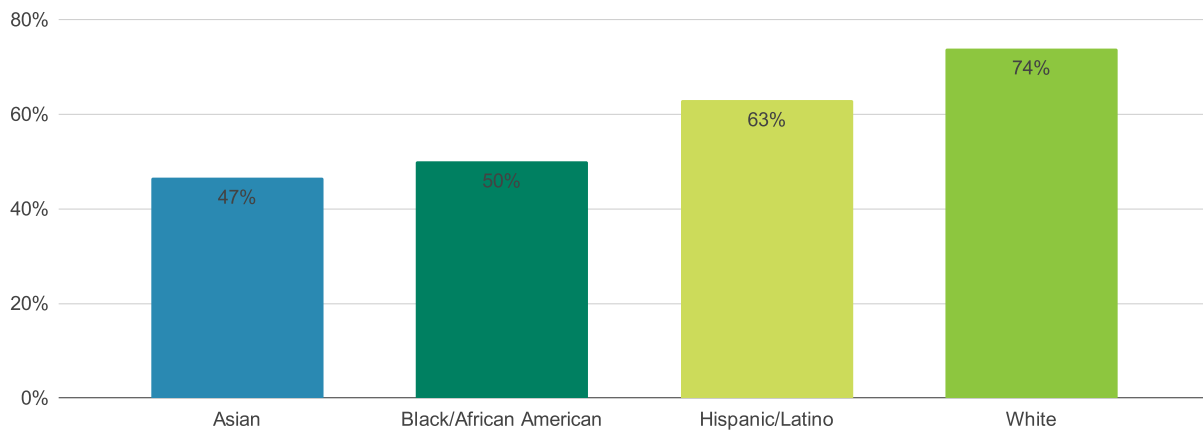
### I have enough time to cook food for myself and/or my family



Lowell CFA 2022

Time is an issue when procuring food as well. In the aggregate, 62% of respondents report having enough time to get their food. A closer look at the data reveals familiar racial disparities, with White satisfaction rates 11-27% higher than those of other racial groups.

#### I have enough time to get enough food for myself and/or my family



Lowell CFA 2022

In open-ended survey questions about how people could achieve food security, 74 responses focused on the need for more time to shop, cook and eat food.

The size and quality of kitchen space and equipment for food prep and storage is important to people's food security outcomes. Residents' homes do not have adequate kitchen space, food storage space (including refrigerator and freezer space), or

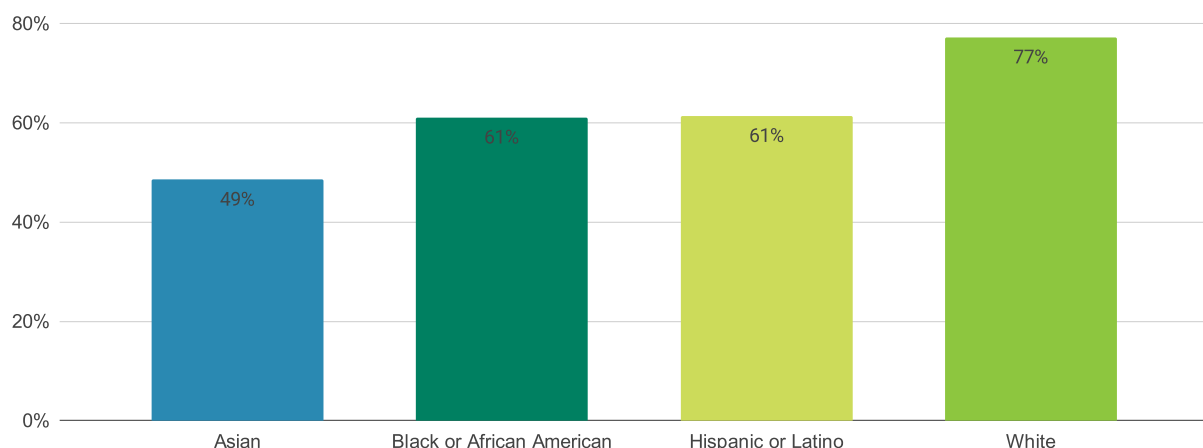
cooking equipment. Without this infrastructure, economical food shopping and meal preparation strategies cannot be utilized.

**“ I often feed multiple generations for dinner in my home and that is costly so I have to cut back on other nights...I have a small space for refrigerator items. This leads to making choices of what I buy weekly.**

*- Lowell resident, household with seniors and children*

”

#### I have enough storage for my food, including refrigerator, freezer, and shelf storage

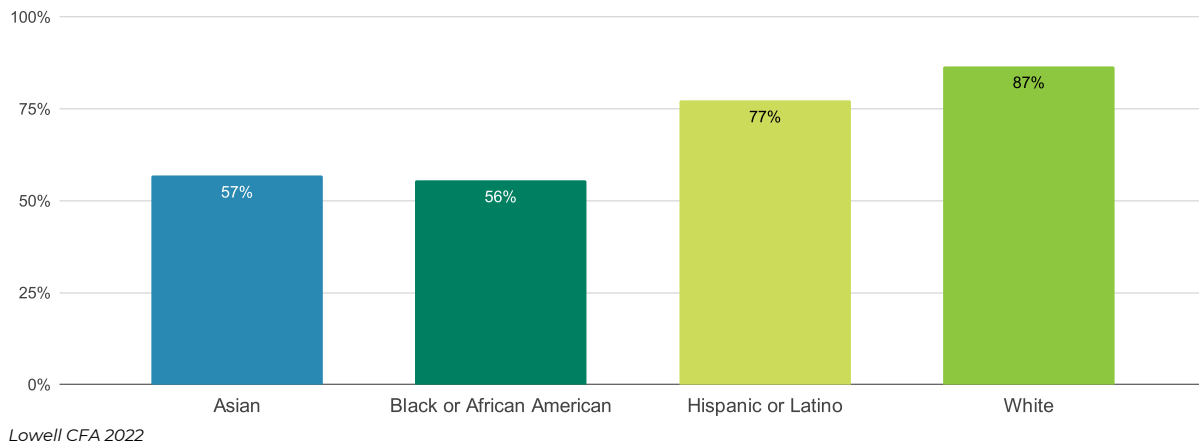


Lowell CFA 2022



Again, the pattern of racial disparity is present here, with White respondents reporting 10-30% higher satisfaction with their cooking equipment than other races, and 16-28% higher satisfaction with food storage.

I have enough space and equipment to cook food, including oven, stovetop, counters, pots, pans and other tools



These disparities show that quality of life indicators that impact food security — income, employment, housing, health, childcare — are impacted by people's race. Any intervention to improve quality of life indicators must be grounded in an effort to dismantle the structural racial barriers that result in disparate outcomes across races.

“ [I need] more time to be able to cook effectively and meal prep with better quality ingredients that are affordable.  
- Lowell resident, cannot afford the foods they would like to eat ”

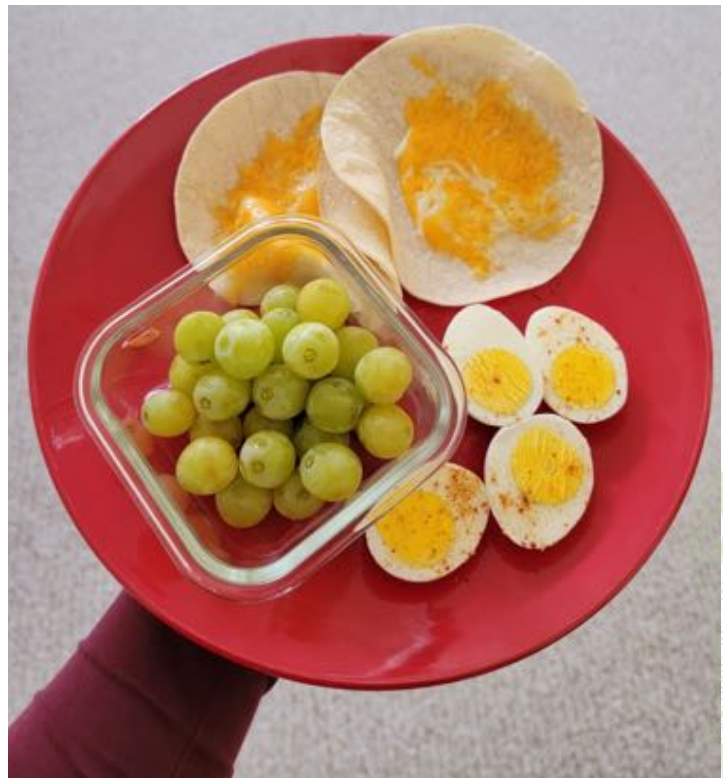
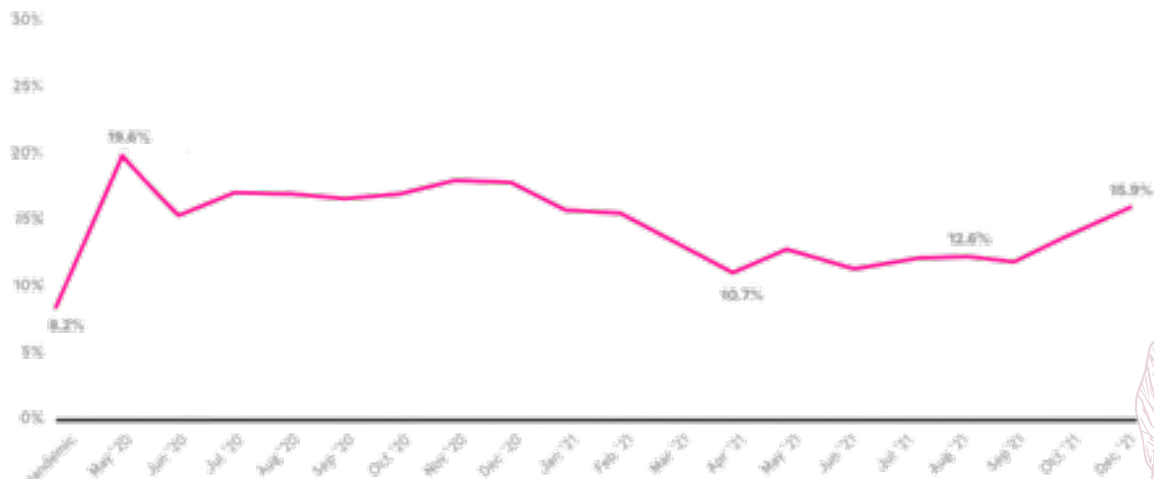


image credit: Timna Nwokeji

# COVID

The COVID-19 pandemic has further intensified the vulnerabilities many residents face in finding and affording healthy foods, however, it has also introduced new programming, structures and understanding of food security.



Project Bread 2022

Food insecurity rose sharply in 2020 as many people were laid off or temporarily lost employment. SNAP enrollment increased to 29% in Lowell and almost all of the grocery stores in the city experienced extreme shortages on basic food staples due to panic buying and supply chain interruptions. Many residents in our focus groups, especially seniors, expressed fear around shopping in grocery stores due to the pandemic. They mentioned overcrowding of markets and other shoppers not following mask procedures or social distancing. Residents also reported a reduction in foods that support positive health outcomes during the pandemic, either due to less availability or a greater reliance on delivery apps or emergency food sources.

*"It is hard to get access to get food. I mostly order food from food delivery apps and most of them are fast food which has had negative changes to my lifestyle."*

*- Lowell resident, Cambodian*

SNAP, one of the most important food assistance programs in the country, significantly increased benefits offered to enrolled participants, and provided "Pandemic EBT" (P-EBT) cards to families with children who receive free lunch at schools, which is all Lowell Public Schools (LPS) students in Lowell. SNAP and other benefits programs also allowed online or over the phone applications, interviews, and other administrative upkeep for the first time in the program's history. Also for the first time since its inception, HIP onboarded new vendors, rolled out new technology access programs, and included new vendors in the AUTOSNAP CSA program. A new online SNAP point of sale was introduced in 2020 at major retailers such as Walmart and Amazon, allowing delivered groceries using SNAP benefits for the first time in Massachusetts. That program continues to expand with more vendors being onboarded throughout 2021.

By increasing the accessibility of these benefits programs and increasing the amount of money available to participants, people's purchasing power was significantly increased at the beginning of the pandemic. In the emergency food sector, many of the barriers to access were removed and pantries and meal programs increased services. The beginning of the pandemic also saw a sudden increase in new emergency food mutual aid programs that were run by volunteers, neighbors and community members, often without fiscal sponsorship or a sustainability plan. The Lowell Llamas is an example of mutual aid organizing that people formed in response to the pandemic.

Some programs, like WIC, saw a reduction in benefits usage, even as they saw an increase in use of programming. Program administrators believe this is due to a proliferation of emergency food sources and increased SNAP benefits during the pandemic, but also an increase in accessibility to educational and other programming, which were offered online.

"When everything shut down, we had to change our operation to transition to an urgent food distribution site, as well as try to connect with families to provide children's needs such as, cleaning supplies, food, and water. Lack of transportation, lack of funds, availability issues, etc. have completely changed our operation. We are no longer working at full capacity. We used to see 200 to 300 uses before the pandemic. We are now averaging about 40 uses. It's truly upsetting to see the drastic measures that we've had to take and how it's affected our children and their families."

*- Emergency food, childcare and education provider in Lowell*

The local agriculture industry saw increases in sales at retail venues in 2020 as more people looked to farm stands and other local retail outlets as sources of items that had become scarce in supermarkets, as well as a safer shopping experience. It's unclear if these increased sales continued into 2021 or if they offset the costs incurred by work stoppages, increased work safety measures or supply chain shortages and price increases.

"Our numbers have increased dramatically as our congregate sites have closed. So, a lot of the people who used to come to the Councils On Aging to get meals have changed to home delivered meals. Our requirement for home delivered meals is that people have to be homebound. But because a lot of the COAs provided transportation to the sites for the meals, then those people would have been without food, even though they're not technically homebound, but they don't have transportation to get places. So, our numbers have dramatically increased. And also, our drivers have decreased because a lot of drivers are, you know, afraid of coming into contact with people because of COVID. And so, we've had less drivers, more consumers."

*- Emergency food provider, delivery program in Merrimack Valley, including Lowell*

# Education

Over the past 40 years, food education has been mostly eliminated from primary and secondary school curricula. Just in the past few years, growing efforts to bring back school gardens and cooking classes in school have started to take root. However, the loss of food knowledge is taking its toll.

“

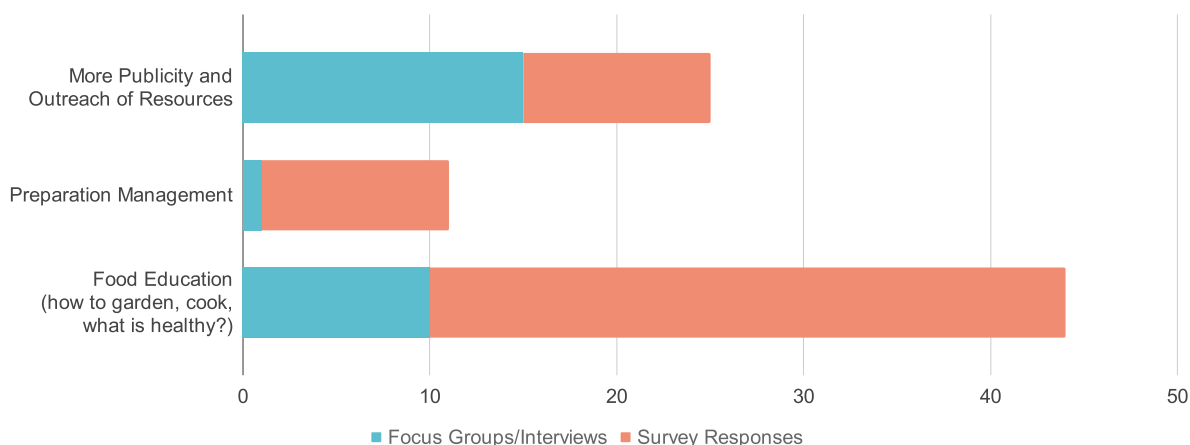
**I'm not a good cook so I get overwhelmed with what to buy in the store and end up falling back on my same rotation/fast food.**

*- Lowell resident, can afford what they would like to eat*

”

Resident input from open-ended survey responses and focus groups call for more educational opportunities around food in Lowell. The request for practical knowledge and skills to grow and cook food, as well as basic nutrition and healthy meal planning, was most common. People are also looking for more information about existing resources, programs, and opportunities pertaining to food and nutrition.

Education Themed Responses



Lowell CFA 2022

The old saying “Give someone a fish and they’ll eat for a day; teach someone to fish and they will eat for the rest of their lives” is only meaningful insofar as there are fish in the water to catch, those fish are edible, and fish are considered a valued food. When people in Lowell report their food security being limited by lack of knowledge and skills to grow and cook food, we must not disregard the importance of the basic need for food that is accessible, affordable, and valuable to Lowell residents. Likewise, food education content is not “one size fits all.” Diverse cultural foodways must be reflected in any food education programming in Lowell. Without these critical components, food education loses meaning and will fail to impact food security outcomes.

“

**Education, teach people how to cook, how to grow their own food because of that they can save money, and time and the most important: all of them could be healthy.**

*- Lowell Resident, Hispanic or Latinx, family with children, have struggled with the price of food*

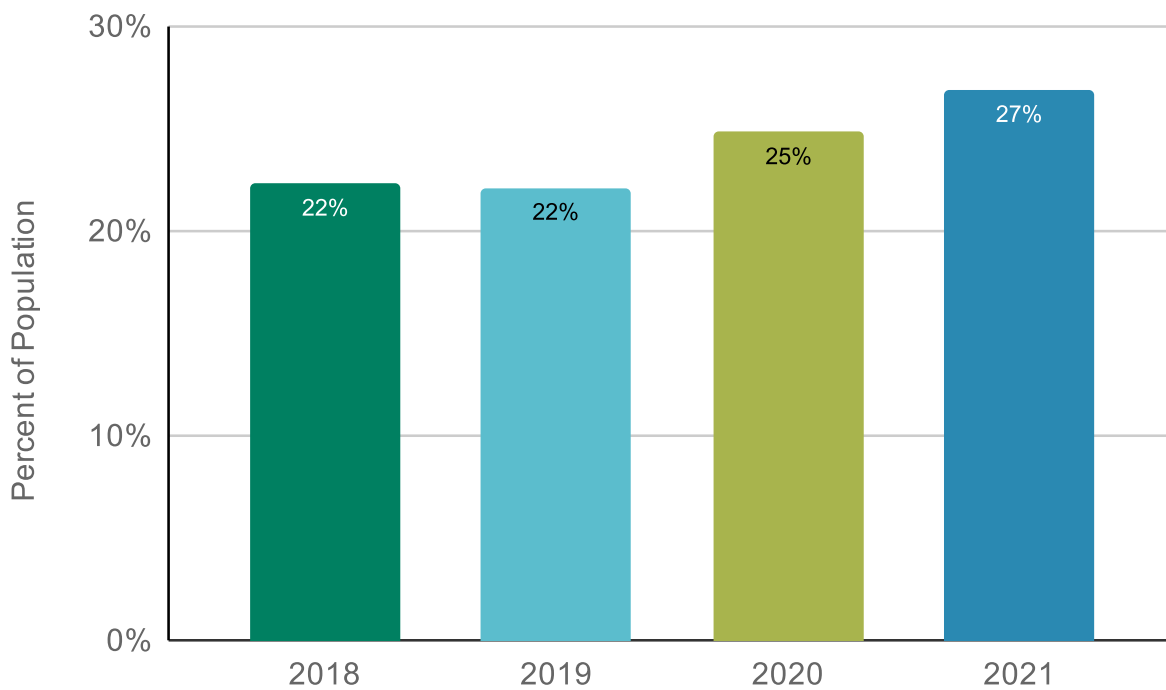
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# Current Programs, Strategies and Obstacles

## Food Benefits

Many Lowell residents' household income does not support the kind of food budget they want or need to be food secure. The most common solution to food insecurity voiced by Lowell residents would be an increase in food purchasing power via government food benefits (Lowell CFA, 2022). Public data and primary source research show that Lowell residents' use of SNAP/WIC/HIP benefits have been increasing over time, and play a significant role in improving residents' food security. From 2018 - 2021, SNAP enrollment has grown 20% to a high of 29,686 enrolled Lowellians - more than 25% of the population (MA DTA, 2021).

### Lowell Population Utilizing SNAP



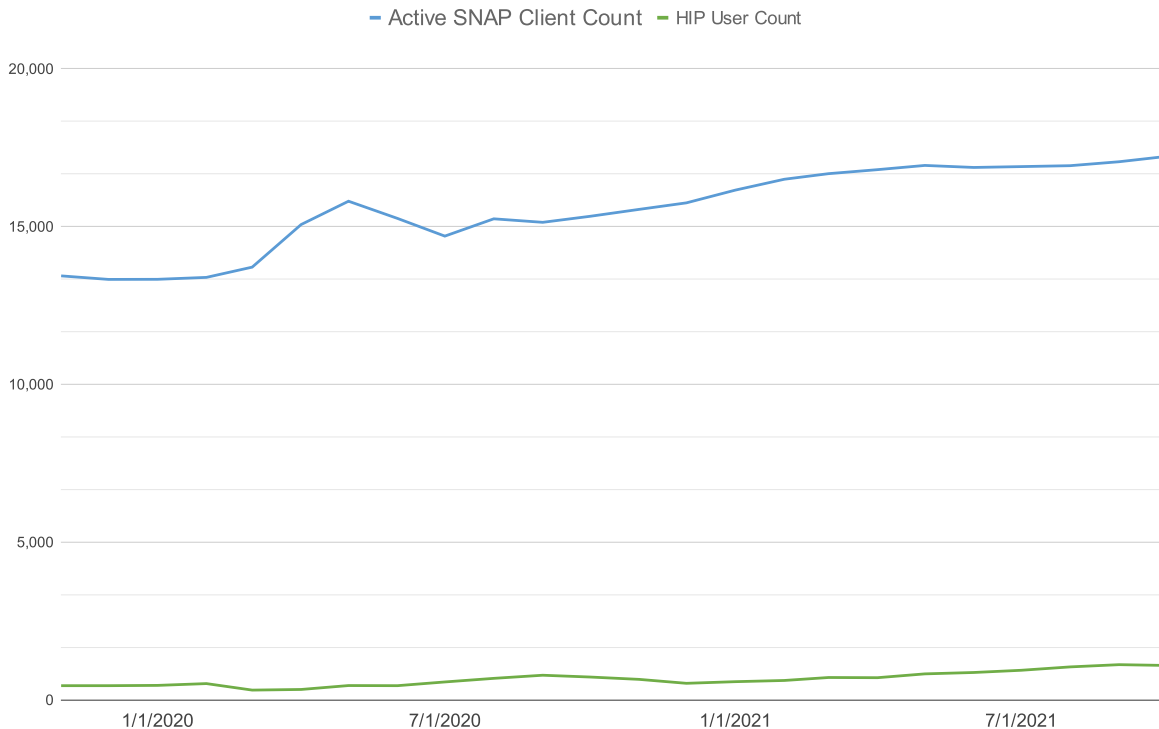
Lowell CFA 2022

The number of Lowell residents who actually receive benefits, however, is a lower number, but is also on the rise: 17,225 residents had access to SNAP dollars at the end of 2021, a 29% increase from 2019 beneficiaries (MA DTA, 2021).



The Healthy Incentive Program — which provides SNAP households with \$40-\$80 each month to spend on fresh produce at participating farmers markets, CSAs and farmstands — is also an important program that increases residents' food security, particularly increasing fresh produce access, the most highly valued food group among Lowell residents. The chart below shows how under-utilized this benefit is, with the number of Lowell residents accessing HIP benefits only exceeding 1,000/month late in 2021. This represents only 6% of available HIP benefit dollars being tapped by SNAP users (MA DTA, 2021).

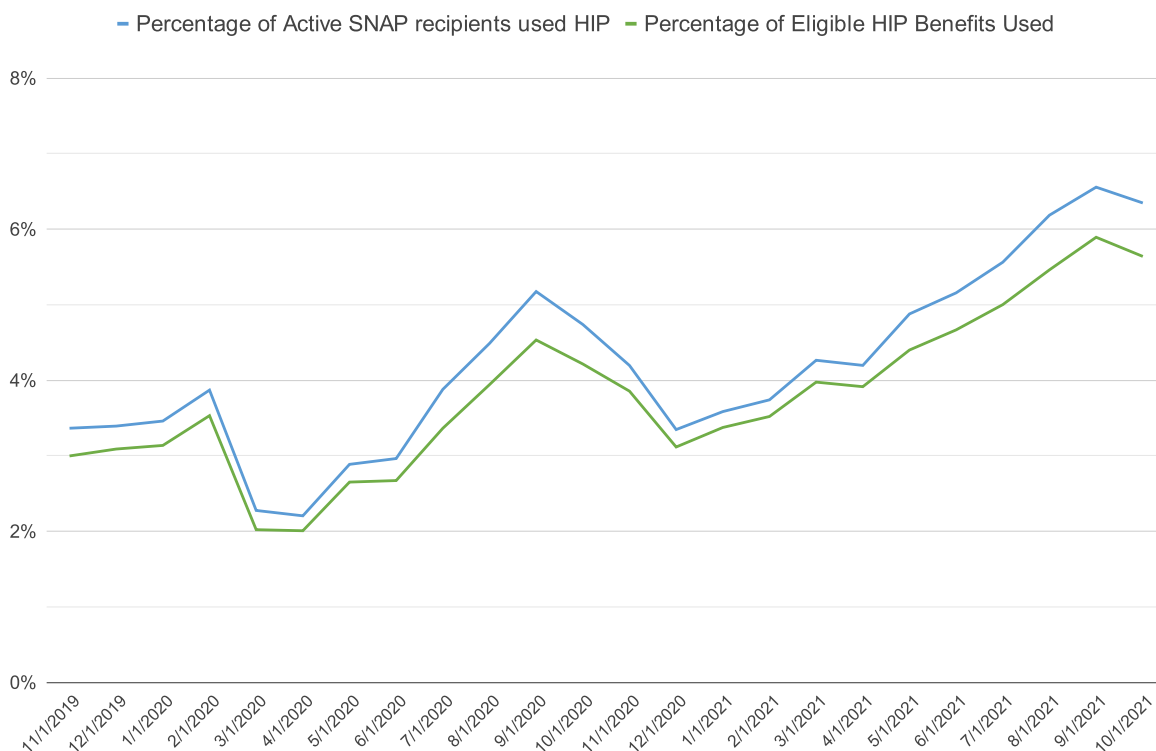
### Lowell SNAP and HIP Utilization



Department of Transitional Assistance 2022

Of the relatively few Lowell residents who do use their HIP benefits, most are using all of the benefits each month, leaving very few HIP dollars on the table. This suggests that HIP suffers from an outreach and vendor access problem, not a desirability problem.

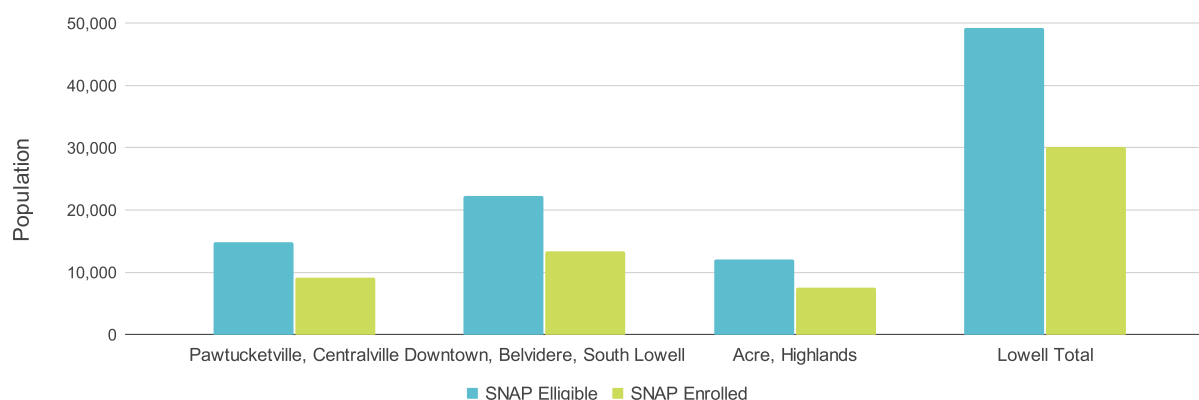
## Percentage of Benefits Used



Department of Transitional Assistance 2022

It is important to note that there is a significant number of Lowell residents who are eligible for SNAP and HIP benefits, but who are not enrolled. The so-called SNAP Gap includes nearly 20,000 people who, for various reasons, are not gaining access to this important, purchase-power boosting tool.

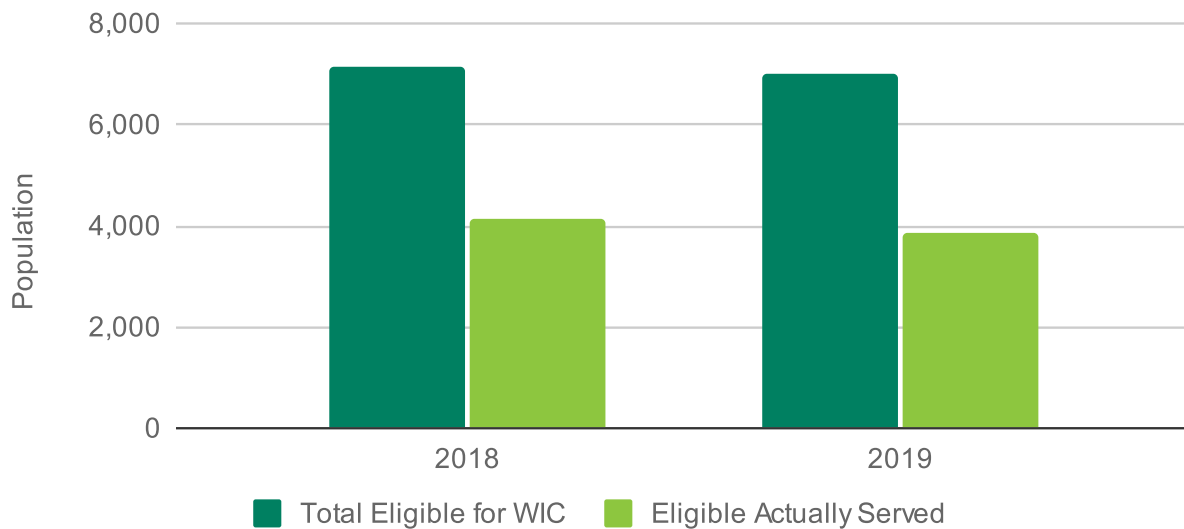
### SNAP Eligible and SNAP Enrolled



Lowell CFA 2022

WIC, a program that supports Women, Infants and Children with subsidized food benefits, has also seen increased enrollment and usage during the pandemic. Interestingly, when WIC transitioned to virtual programs and consultations in 2020, participation increased (Lowell CFA, 2022). Benefits usage, in contrast, decreased, likely due to the proliferation of temporary emergency food sources and the increase of SNAP benefits due to the pandemic. Similar to SNAP, there is a segment of Lowell residents who are eligible for these benefits, but are not accessing them.

## WIC Eligible and WIC Enrolled



Another change brought about to address the surge in food needs during the pandemic was the advent of the P-EBT program, wherein families of children in public schools received an EBT card with monthly allotments of \$88 - \$190 per child (USDA, 2021). This additional boost of purchasing power has meant improved food security for families across Lowell.

A barrier the pandemic laid bare for shoppers using benefits is that food delivery programs like Instacart, Peapod and Amazon Fresh are not available to SNAP and WIC shoppers. As food delivery grew in popularity and importance, these customers were left out.

While food subsidy programs are making a difference for many families, there remains a need for more financial support and benefit acceptance. Food costs continue to rise while wages stagnate, and fresh, organic, and locally produced foods are usually the most expensive choices. In 2021, supply chain issues and inflation have caused food prices to rise significantly compared to 2020: average food prices increased by 6.1%, with higher increases in meat (16.8%), eggs (8%), and fats/oils (9.1%) (USDA, 2022).

Not only did residents report the need for increased benefit amounts, but also the need for the eligibility standards to be revised (Lowell CFA, 2022). Many Lowell residents are not able to access SNAP, HIP or WIC due to their earnings being too high to qualify. However, given the high cost of living in MA — including some of the nation's most expensive housing, childcare, education, transportation, and health care — Lowell residents report not having enough income to actually afford the foods they want and need to be healthy. Revised eligibility standards that more accurately assess SNAP applicants' food purchasing power compared to other household costs would give more people the opportunity to supplement monthly food budgets and allow purchases of food that fit their values, their cultures, and their health needs.

# Emergency Food Providers

The network of pantries meal programs known as Emergency Food Providers (EFPs) plays an important role in Lowell residents' food access. However, it is important to note that when residents are relying on EFPs for their food, they are not active agents of their food choices, and are therefore by definition food insecure. EFPs are generally under-resourced in terms of funding, staffing, and infrastructure, which limits the kinds of foods offered, the days and hours they are open, and the services provided to food insecure clients (i.e. translation, nutrition counseling).

We interviewed 10 emergency food providers throughout Lowell with offerings ranging from administering federal benefits to running a meal delivery service (Lowell CFA, 2022). Most of the service providers are working within specific nutrition requirements set by the Federal government, which impact the amount and type of foods served, as well as what types of spices and flavorings can be used. While one service has developed specific menus for Asian and Latinx clients, most services struggle to provide culturally connected foods. Limitations include: the inability to consistently access those foods; difficulty meeting the needs of a very diverse client population; and meeting the nutritional guidelines while providing culturally connected menus.

Other challenges noted by the emergency food providers include how to do outreach and education to clients who speak up to 70 different languages and live in very different environments, including unhoused and shelter populations. Ultimately, these operations are logistically huge and complicated, requiring food safety measures, adequate storage and nutritional requirements for hundreds or thousands of clients each week. At the same time, most of these programs are not designed to provide a client's full diet or all of the food a single family needs. **People experiencing inadequate food resources might need to access multiple different services. A major component of providing these services is informing the public that they exist and how to access them.**

**“ We don't provide everything that a child under five would need...we're a supplemental program. Clients could always use more, but we do our best to make sure that if they're still struggling with food insecurity, we're encouraging them too, 'have you applied for food stamps? Do you use the HIP program with food stamps? Do you know where all the food pantries are? There's meal services with the schools,' so we're educating them on other resources. We don't just say, 'well, this is all you get from us.' ”**  
- Lowell Emergency Food Provider

According to the Merrimack Valley Food Bank's listing of current food pantries and meal programs, the following Emergency Food Providers are serving Lowell:

- 7 meal programs
- 10 food pantries

During the early days of the COVID-19 Pandemic, many programs transitioned to delivery models, offering both grocery items (food boxes) as well as prepared meals. AgeSpan (formerly Elder Services of Merrimack Valley) has consistently offered prepared meal deliveries — Meals on Wheels — to eligible residents. Other organizations responded to Pandemic-induced food insecurity by offering new meal programs. Lowell Public Schools launched 10 daily Grab N Go sites, offering prepared meals to students and families. The Lowell Senior Center also launched Grab N Go meal pick up for Lowell seniors. UTEC operated a meal delivery program.

As noted previously, these programs, while providing critical services and supports to Lowell residents, are not a proxy for food security. Beyond the fact that EFPs do not supply adequate quantities or qualities of food to meet people's basic nutritional needs, EFPs are not able to imitate the free choice experience that people seek and need in a retail environment. Residents who visit pantries and meal programs do not have the option to choose the foods they want and need; rather they receive what is given regardless of health needs, cultural diet, personal preferences, cooking skill and equipment, and so on. Personal agency is central to true food security, which is not what residents experience when interfacing with Emergency Food Providers. This is not the fault of the EFPs, rather it is a failure of our social and economic structures that cause people to rely indefinitely upon programs that are meant to be utilized in emergency situations. The reality is that far too many clients rely upon EFPs regularly and indefinitely.



*image credit: Steering Committee Member*



# Unhoused People

*Individuals who do not have access to home stability, i.e., people who experience living on the streets, in shelters, group or transitional housing, or those who are living with friends and family temporarily. (National Health Care for the Homeless Council)*

Those who experience homelessness are at greater risk for poor mental and physical health, substance abuse, HIV infection and other detrimental conditions. Additionally, their ability to obtain adequate, nutritious food is poorly affected. (Centers for Disease Control and Prevention)(Community Teamwork Inc.)

The unhoused community within the city of Lowell is increasing due to a multitude of barriers including housing affordability and availability, inadequate wages, and access to workforce training and education. These barriers negatively impact an individual's ability to afford stable housing. (Community Teamwork Inc.)

- There was a 153% increase in those experiencing homelessness from 2009 to 2018 (Dobbins)
- 35% of all Lowell renters are listed as Extremely Low Income, putting them at greater risk for experiencing homelessness as a single financial burden (i.e., medical expense or unplanned accident) can cause an individual to fall behind on rent. (Community Teamwork Inc.)
- Individuals in the BIPOC community are disproportionately affected as they make up a large percentage of renters. (Community Teamwork Inc.)

Historically, Lowell has been trying to address the unhoused community through the Hunger and Homeless Commission with city-wide collaboration and initiatives. These movements however have been put on hold due to changes in leadership positions and overwhelmed service providers.

- In 2018, 43% of 237 respondents listed housing and homelessness as a top 5 unmet need for you and the community that increased to 53% of 1,431 respondents in 2021-2023. (Dobbins)

The unhoused community has access to emergency food provider services such as food banks and pantries, however home meal delivery programs (i.e., Meals on Wheels) are limited to those who are homebound as their congregate sites are closed due to the pandemic. The pandemic has increased food resources for community providers, but there is a gap in volunteers and staff to distribute the food.

*"What options are there for people who don't have a kitchen, living in hotel or in cars - no options for people who can't cook" - Community Health Worker, Lowell Community Health Center*

# Urban Agriculture

Urban agriculture, as well as access to locally produced foods via farmers markets and farm shares, has increased in Lowell in the last 10 years. Community gardens have proliferated across the city, with currently 10 gardens available for residents to join. School and community center gardens have also become more common. These growing spaces in the city create food access and learning spaces for participating and neighboring residents. Gardens are an important strategy to consider for culturally diverse populations like Lowell: residents have the opportunity to grow their own cultural crops that may not be available, fresh, or affordable in food retailers. Residents who have access to a community or backyard garden may be able to grow some annual and perennial crops that fill in gaps in access to culturally important foods. However, garden space and infrastructure is limited, as is the growing season. Many desirable fruits and staple crops are not possible to grow in Massachusetts without significant land, time, and/or greenhouse infrastructure.



*image credit: Steering Committee Member*



# Persistent Obstacles and Barriers

It's important to note that even when programs or strategies are successful at meeting a community need, there are issues that continue to create barriers and food insecurity. The issues below were mentioned across the board in many programs and structures that make up our food system. We consider this list a place for programs to begin assessing the equity and accessibility of their programs as they utilize this data.

- Systemic and persistent disparities in the experiences of BIPOC residents compared to Whites, rooted in systemic racism and xenophobia
- A lack of networking and collaboration amongst programs and initiatives
- Programs that are limited to serving specific populations (i.e. elders, families with young children)
- Programs have limited hours and are hard to navigate (i.e., if you cannot go when it's open, you might never get assistance)
- Navigating the application process for benefits and subsidy programs is difficult and confusing
- General lack of knowledge among the community at large as well as professionals within social service agencies about all the different food program offerings available

Many of these challenges indicate the need for more adaptive, networked collaboration among nonprofits, government agencies, and service providers. A **coordinated, assets-based approach to food insecurity** will lead to resources being leveraged and shared, an easier flow of information, and ultimately better food security outcomes for Lowell residents.



*image credit: Timna Nwokeji*

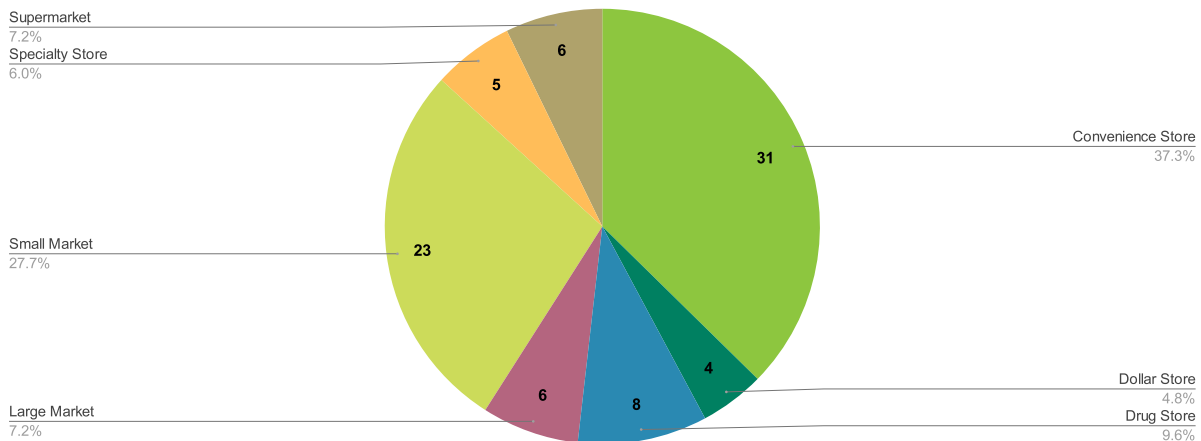


# Food System

## Retail

Retail is by far the most common way that people access food in Lowell, with 93% of respondents shopping at supermarkets like Market Basket, Hannafords or Stop & Shop (Lowell CFA, 2022). Additional food retail sites include convenience stores, neighborhood markets which are often connected to a specific food culture, farmers markets or farm stands, food wholesalers like Costco or BJ's and department grocery stores like Target and Walmart. Our respondents selected all of the places where they regularly shopped, displayed below, along with some non-retail food access points.

Types of Food Retail



Lowell CFA 2022

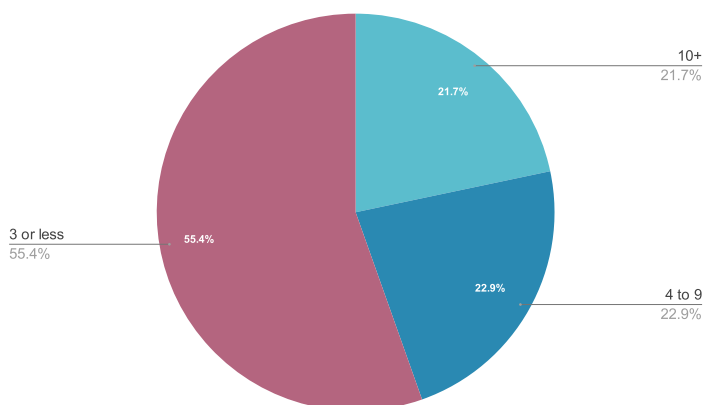
## Grocery Stores

Out of 594 retail food locations in Lowell, 136 are grocery stores or offer some kind of grocery food selection. Out of these 136 stores 104 accept SNAP benefits, 20 accept WIC benefits and 3 accept HIP benefits (Lowell CFA, 2022).

We conducted an in-person review of 83 of these grocery food vendors and found that convenience stores/gas station markets make up the highest number of retail locations, while supermarkets are among the fewest with small, neighborhood grocery stores also fairly plentiful.

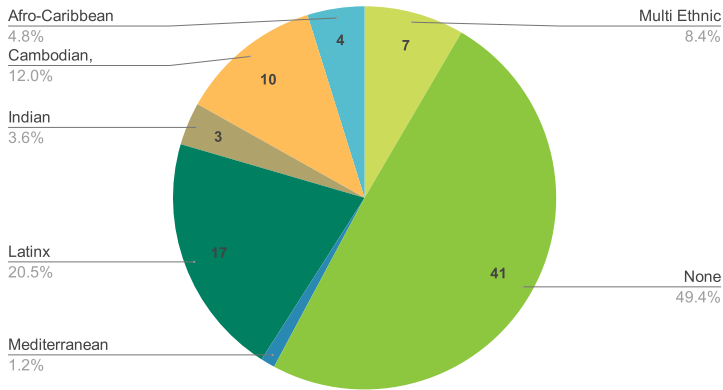
However, when surveyed for the presence of fresh vegetables we found that only 22% of the stores we surveyed had more than 10 fresh vegetables present, and 55% were offering fewer than 3 fresh vegetables. Based on our research, fresh produce is the type of food that residents would most like better access to.

How many varieties of vegetables were present?



Lowell CFA 2022

#### Food Retailers Offering Cultural Foods



Lowell CFA 2022

We also found that 49% of stores surveyed lacked any culturally connected foods at all.

Almost all survey respondents get at least some of their food from grocery stores.

Supermarkets are the most popular food access points with 93% of respondents shopping there, however, department

stores and food wholesalers also attract large numbers of respondents with 32% and 26% reporting that they shop there, respectively, see appendix for data.

Digging into the data based on demographics, zip code, and age we found some interesting trends about where specific populations are going to buy food.

Neighborhood markets are more popular with people who identify as Asian with 30% of people in that demographic shopping there consistently rather than 19% in the general population. These small markets are also more popular in zip code 01851 (Highlands) than in any other, with 25% of 01851 residents listing them as an important food source. This same group of residents indicate that they shop at supermarkets less frequently, with only 84% listing it as an important food source, compared to 93% of the general population.

Respondents with household members under 18 shop much more frequently at food wholesalers than the general population, with 40% listing it as an important food source compared to 26% generally. Meanwhile, respondents in zip code 01852 (Downtown, Belvidere, South Lowell) shop less frequently at food wholesale stores, only 20% indicating it as an important food source. This zip code also indicated the lowest percentage of respondents who drive to stores. Zip code 01854 (Pawtucketville) indicated that they shop at food wholesale stores more frequently, with 35% listing it as an important food source.

**“ For some other communities it’s not easy to access — fresh foods in general, not to mention cultural foods; Patients who lack transportation, have to walk to grocery stores — the food you find there is not fresh, not high quality. Lack of transportation and spacing of stores is a challenge...carrying bags of groceries makes it harder. Food pantries give a lot of food, but you can only go 1x/month, can be challenging to get food home.**

*Community Health Worker, Lowell Community Health Center*

**“ More neighborhood grocery stores. Grocery stores that people can reach without a car or bus.**

*Lowell resident, senior*



Gas stations and convenience stores were the lowest ranked of all of the food retailers, indicating that not many residents rely on them as an important source of food. However, residents with household members aged 18-35 indicated a higher usage, with 15% indicating that gas stations and convenience stores are an important source of food, compared to 10% in the general population.

### Farmers Markets

There are three organizations in Lowell that currently offer farmers markets, CTI, Mill No. 5 and Mill City Grows, which operates four Mobile Markets throughout Lowell each week. At the peak of the growing season, there are five weekly farmers markets throughout the city. Of those markets, three are located in the 01852 zip code, one is located in the 01854 zip code, and one is located in the 01851 zip code. Two of these markets are held throughout the winter as well. All of the market locations have vendors who accept SNAP, HIP and Senior/WIC coupons.

Survey responses illustrate trends in farmers market patronage (Lowell CFA, 2022). Families with adults over 65 years old are much more likely to shop at farmers markets and farm stands, with 35% responding that these are important food sources compared to 26% of the general population. This is likely due to the targeted benefits for seniors at farmers markets, including the Farmers Markets Nutrition Program coupons, also available to WIC recipients, which give eligible seniors \$25 to spend specifically at these venues from August 1st - October 31st.

Residents in zip codes 01852 and 01854 also selected farmers markets as an important food source more frequently than residents of other areas. Farmers markets and farm stands were selected by 32% of residents in 01854 and by 27% of residents in 01852, compared to 25% of the general population. These zip codes currently have easier access to farmers markets, potentially indicating that more farmers markets in more areas may increase usage of this food access point city wide.

In focus groups, interviews and survey responses there were 89 responses that discussed farmers markets, either as an important food source, or as a resource they would like more access to. Residents mentioned that there are multiple types of benefits which can only be used at farmers markets such as WIC and Senior coupons and HIP benefits. They also discussed freshness, locally sourced produce, and organic produce options as important factors in sourcing food directly from farmers.

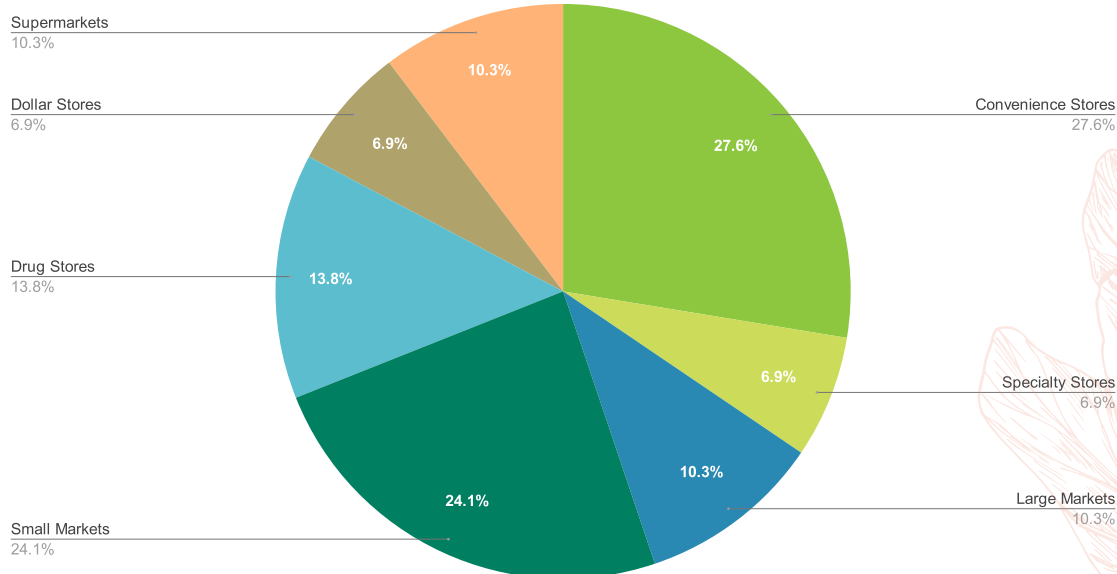
### Fast Food and Restaurants

Of the 594 retail food vendors in Lowell, 237, or 40%, are restaurants. Restaurants and fast food chains are important sources of food for many Lowell residents: overall, 23% of respondents indicated that they regularly get food from fast food or other restaurants (Lowell CFA, 2022). Responses were slightly higher in the White (27%) and Black or African American (28%) racial demographics.

# Markets: The Highlands

226 individuals from the Highland community, 01851, participated in the resident survey. These individuals, largely identified as Asian (94 respondents), White (46 respondents) and Hispanic or Latino (24 respondents). Residents in this area shop less frequently at supermarkets, and ranked small markets as an important food source. These smaller markets are largely available in this zip code, and taxi and Ubers were more commonly used as transport compared to other areas in Lowell.

Retail Types - Highlands



01851 residents were split between feeling that they had enough money to buy the foods they wanted: 55% of respondents felt that they did, however 45% of respondents felt that they did not have enough money.

Residents in this area felt that they had enough food in their households, but not the type of foods they wanted to eat. However, residents agreed that they could easily find and afford cultural foods.

Residents in this area largely would like:

- More fresh fruits and vegetables in their households, followed by more protein products
- More storage; 25% of respondents felt that they needed more storage, roughly 10% higher than the average population's response

The retail survey report indicates that in the Highlands, quality of fruits and vegetables were largely very fresh across retailers in this area, however most places offered 3 or less options. Meat availability was also limited, with 48% of retailers not offering meat options.

"Asian Community in Lowell has a lot of Asian grocery stores, close to us, easy to access foods that we normally eat" — Community Health Worker, Lowell Community Health Center

# Urban Ag

There are currently 10 community gardens in Lowell, eight managed by Mill City Grows, one by Coalition for a Better Acre, and one by the Lowell Alliance. There are also five acres of active urban farmland in Lowell, farmed by Mill City Grows. Of the residents surveyed, 24% are currently growing their own food (Lowell CFA, 2022). We know that backyard gardening is an important resource for Lowell residents, although we don't currently have information on how many residents are growing food in their backyards. Of those who aren't currently growing food but want to, 49% indicated that they would like to learn. More Latinx and Asian residents would like to learn than other race/cultural groups, with responses of 58% and 55% respectively.

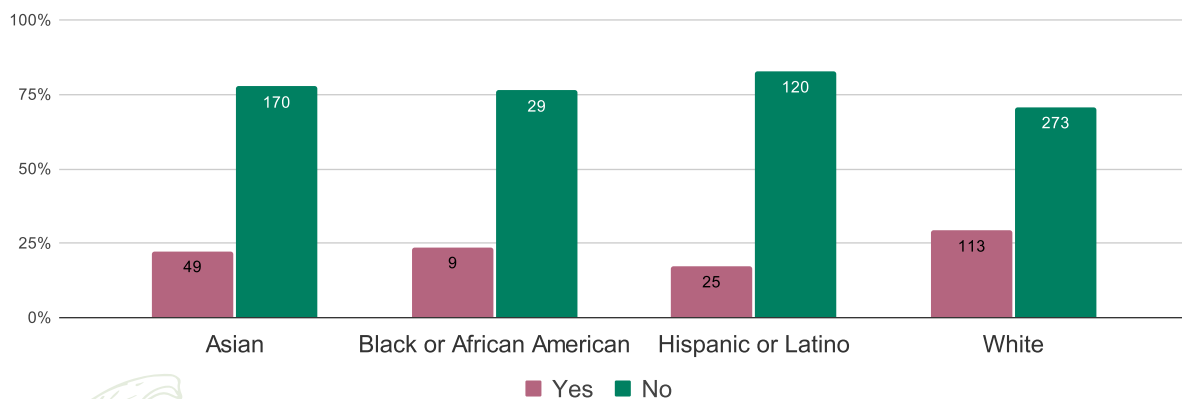
Home or community gardens were selected by 12% of respondents as an important food source. People living in the 01850 (Centralville) zip code responded at a slightly higher rate with 14% indicating gardening as an important food source; there are three community gardens in this neighborhood.



Image credit: Steering Committee Member

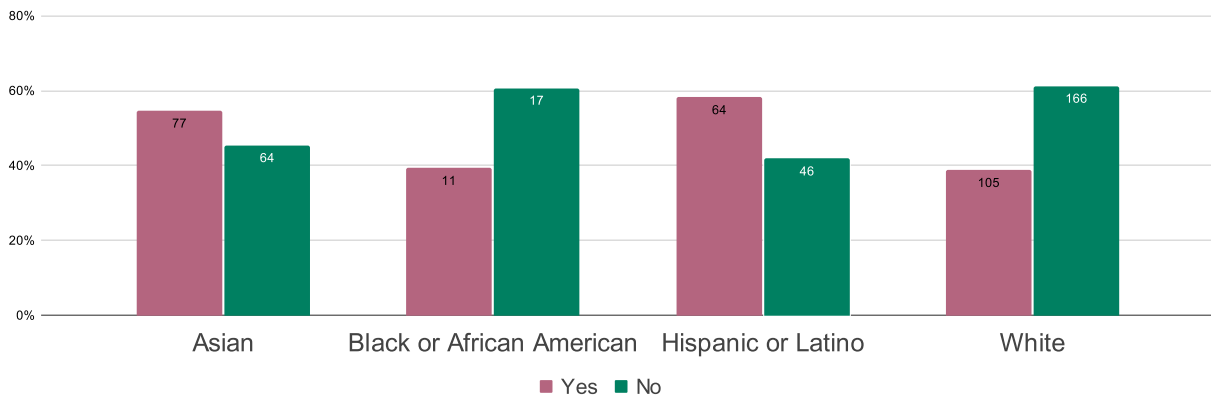
Households with older family members also seem to rely more on gardens with 14% of households with family members 50-65 and 17% of households with family members 65+ selecting it as an important food source.

## Do you grow your own food?



Lowell CFA 2022

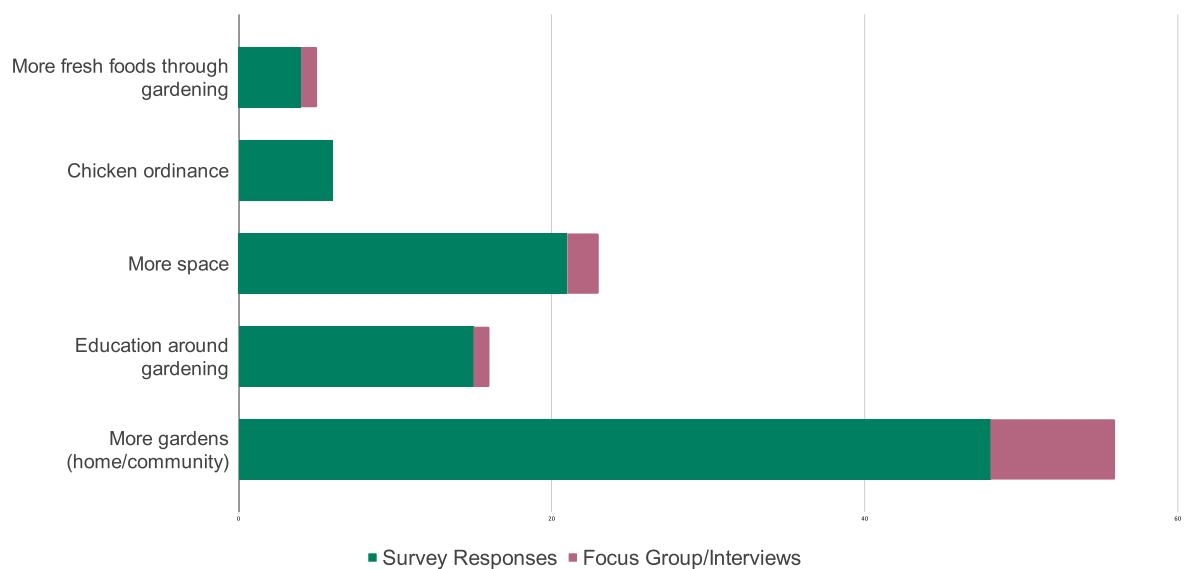
If no, would you be interested in learning how to grow your own food?



Lowell CFA 2022

In focus groups, interviews and open ended survey responses there were 105 mentions of Urban Agriculture. Residents indicated that they either were currently using gardening as an important source of food, or that if they could overcome the barriers to garden, they would have more food security.

#### Urban Agriculture Themed Responses



Lowell CFA 2022

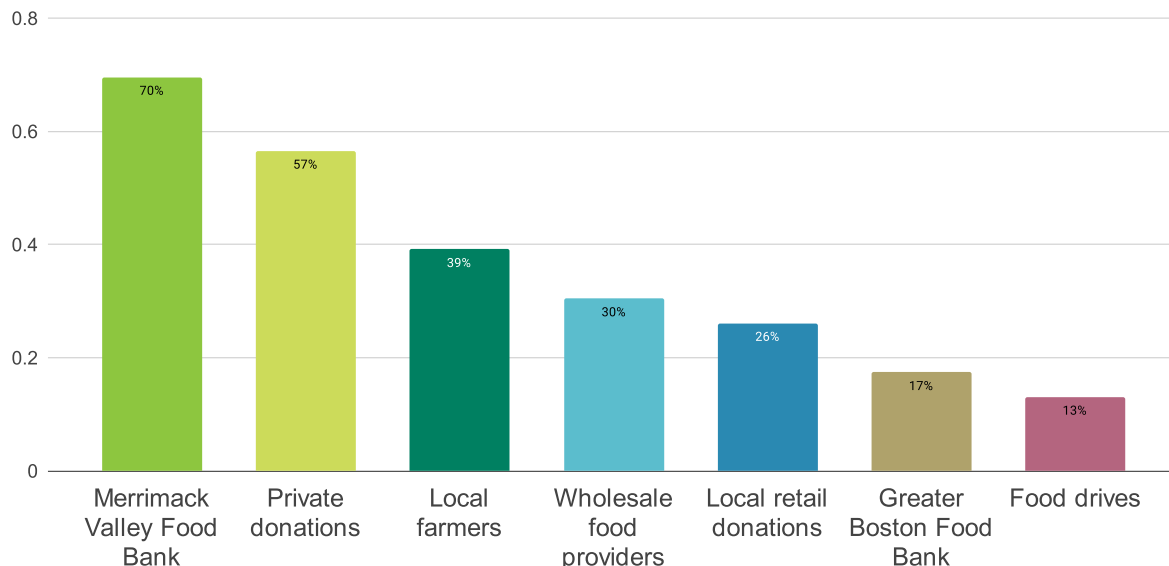
“ **More farm, gardens, more farming, more garden education**  
*Lowell resident, Hispanic or Latinx, household with children* ”

# Emergency Food Providers

Emergency Food Providers (EFPs) are organizations and programs that provide food at no cost to people experiencing food insecurity. This can take many forms including food pantries, food banks, hot meals, grab'n'go meals, or meal deliveries. Of the residents we surveyed, 9% indicated food pantries or food banks as important sources of food (Lowell CFA, 2022). Currently Lowell has 10 operating food pantries and 7 meal programs including hot meals, grab'n'go meals and meal delivery.

We surveyed 23 local EFPs to learn more about their programs, who they're serving, and how the pandemic has affected the food system. EFPs are sourcing their food from a number of different sources, however, the highest sources are through the Merrimack Valley Food Bank — currently located in Lowell but soon moving to Chelmsford - and private donations. Local growers, producers and wholesalers also make up a significant portion of emergency food provision.

Please select the food providers that serve your agency. Select all that apply.

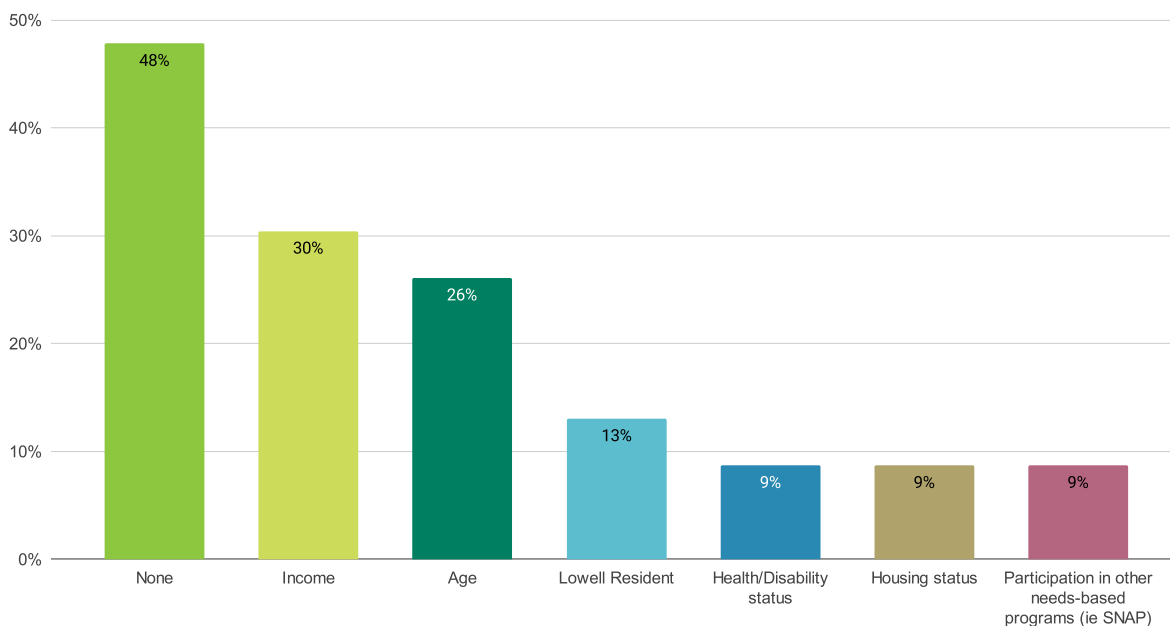


Lowell CFA 2022

According to our survey, 47% of EFPs do not require any documentation to use their services, however, others do require proof of residence, ID, income information, federal benefits information or other documentation. This requirement for documentation largely matches the numbers of EFPs who only serve specific populations. We found that 47% of EFPs do not have specific populations that they serve exclusively. However, the remaining EFPs base their service on a number of different factors, with income and age being the most frequent considerations.



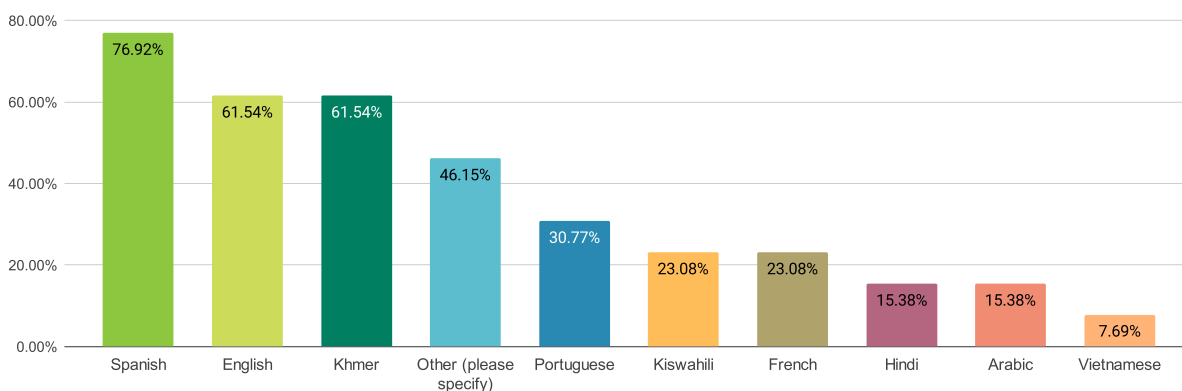
What requirements and/or qualifications must your clients meet in order to receive food?



Lowell CFA 2022

We also found that only 61% of EFPs provide interpretation services for non-English speaking clients. For organizations that do provide interpretation services they largely provide service in English, Khmer and Spanish, with several other languages offered much less frequently.

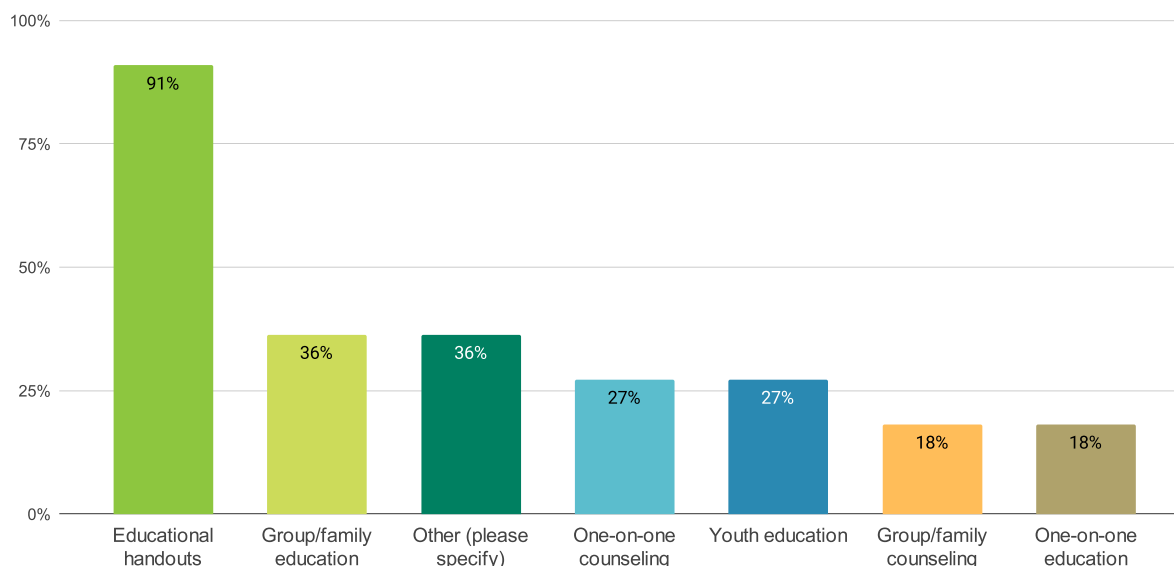
What language(s) is/are available through interpreters? Select all that apply.



Lowell CFA 2022

Of those surveyed, 50% of EFPs provided nutrition education services, with the majority of those being educational handouts. One-on-one counseling or education is provided by 25% of respondents, and group or family education is provided by 35% of respondents.

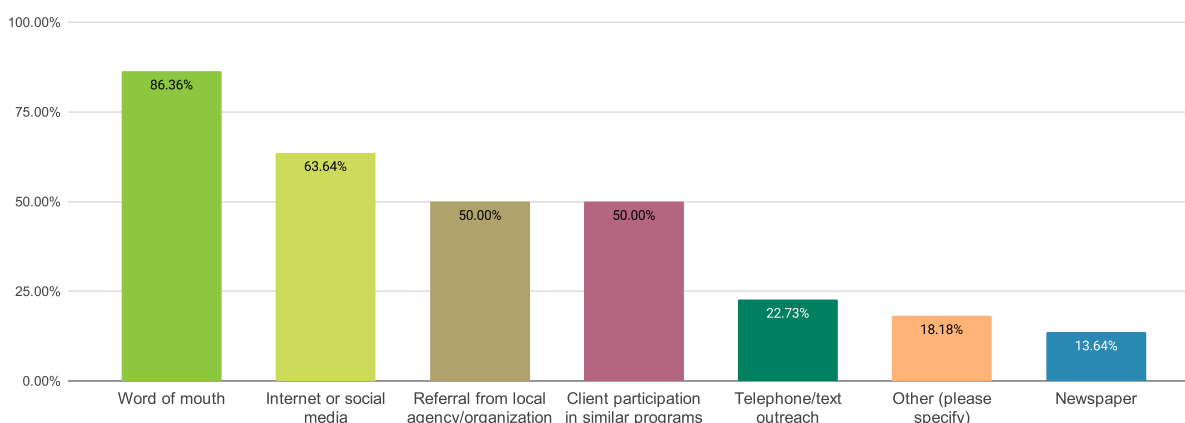
What nutrition education or nutrition-related services does your agency provide? Select all that apply.



Lowell CFA 2022

One of the significant barriers that came up in our resident surveys was a lack of information about existing programs and how to access them. Our EFP respondents indicated how they publicize their programs, and we found that by far the most common method of information was word of mouth. Referrals from medical professionals or other emergency services (housing, addiction, mental health care) and social media are other common methods that EFPs use to inform the public of their services. Widespread information such as newspapers were rare.

How do most clients hear about your services? Please select 1 to 3 of the most common outreach methods used by your organization.



Lowell CFA 2022

The number of clients served by the EFPs we surveyed varied widely. Some EFPs are serving as many as 4,000 clients in a month, while others are serving fewer than 100. Collectively, of those who answered our survey, over 15,000 clients are being served, although not all of those residents live in Lowell.

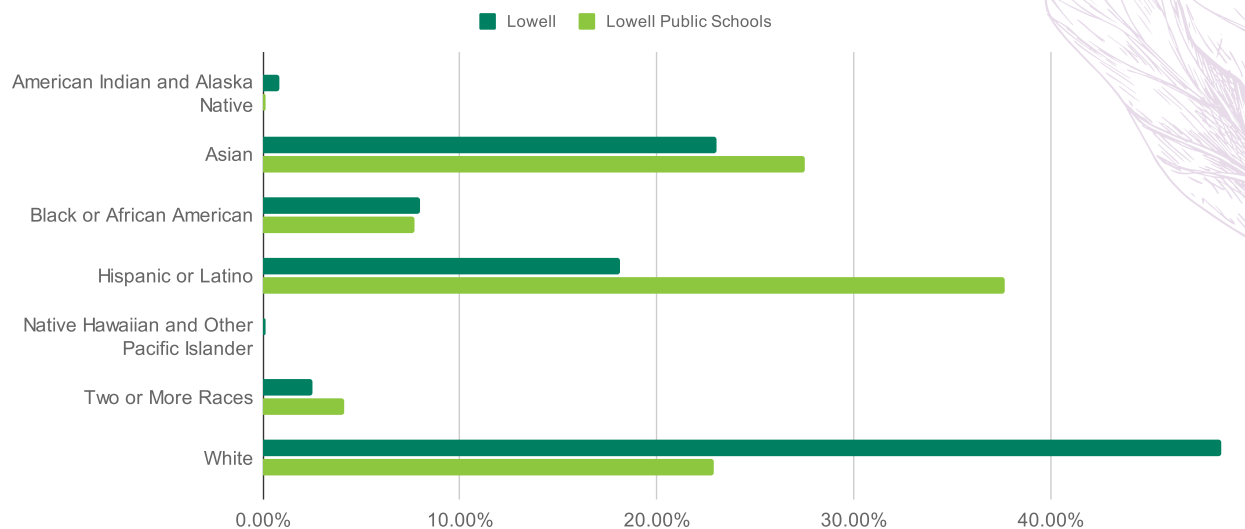
# School Food

The Lowell Public School District is made up of 27 schools serving 13,991 PreK - 12th grade students. 75% of LPS students are Low Income, and 84% are High Needs (MA DESE, 2022). 26% of LPS students are English language learners, and for 37%, English is not their first language. LPS racial demographics show different trends compared to Lowell's general population, in that Latinx students are over represented (37.7% compared to 18%) and White students are underrepresented (22.9% compared to 49%) compared to the general population.

"You know, for example, a third of our kids are Southeast Asian. Yeah, and I haven't seen a lot of like Asian vegetables being used. I think we have done a great job within our school gardens, and within our after school programs, but I don't know what our federally reimbursed food is. I think you're just getting a lot of Americanized stuff, sandwiches, and you know, burgers, and chicken nuggets. I think that when schools actually open back up, we'll see a difference, with the foods that are being prepared."

-LPS Staff Member

Lowell vs. Lowell Public Schools Racial Makeup



Since 2015, all public school students in Lowell have received free meals through the Community Eligibility Provision (CEP). LPS Food and Nutrition Services, which are managed by the contracted food service provider Aramark, Inc, was serving 20,000 meals per day: breakfast and lunch before the pandemic. They have since added a dinner program.

"We are serving I think more of the needier families, more food than we were allowed to before [the pandemic]. Due to waivers that the USDA has provided us, we're providing meals for the weekends, holidays [that] don't have to be congregate meals where typically the kids have to eat... they've given us a lot of waivers that allow us to really feed freely." - LPS Food Service Staff Member

During the early days of the pandemic, LPS shifted to a fully remote distribution of meals, offering 10, or more, daily sites where parents and students could access “Grab N Go” meals for students and household members.

For several years, the LPS Farm to School program has been growing and gaining traction and popularity. The program includes Harvest of the Month, a rotating array of locally grown produce that appears in menu items, taste tests, and nutrition education. Farm to School has also led to district-wide commitments to purchase local produce, for example Little Leaf salad mixes grown in Devens MA are now a permanent feature in school meals. School gardens are more common in the district now than they were 10 years ago, with gardens at every elementary school and most middle schools. Efforts to improve school food quality via culturally connected recipes that use local ingredients have brought about an overhaul of school food menus in order to reflect Lowell’s cultural diversity.

Primary data from surveys and interviews reveals that students and parents continue to have complaints about school food. The concerns fall into three categories: food safety/quality control; unhealthy menus featuring junk food; and the persistent perception that kids won’t eat school meals.

“I don’t like school food a lot. I always ask my kids and they always say it’s mostly pizza, hamburgers and sometimes vegetables.” - Lowell resident, Colombian

To address these concerns, LPS FNS is currently recruiting parents and students to join a Food and Nutrition Advisory Committee to give input and feedback on school food.

“It’s not eating [that] is a bigger issue for us than kids not eating healthy all the time. We have to find this really sweet balance of providing kids what they want, what they will eat, what they will try, but also not be so stringent, and so strict that they don’t need anything. Because we know what hunger does to kids in regards to learning and behavior.” -LPS Food Service Staff Member

A major barrier for Food and Nutrition Services is the stringency of the USDA guidelines that regulate federal school food programs. Serious limitations on salt and sugar mean that school foods will taste different from foods high in these ingredients that children have preferences for.

Like many industries, Food and Nutrition Services has experienced a serious staffing challenge through the pandemic. Cafeteria staff are unionized employees of the City of Lowell, with their wages set in negotiations between the union and the City. Aramark, a third party contracted by the City to provide management of LPS Food and Nutrition program, does not directly oversee the staffers who operate the cafeterias. This clunky labor structure has led to significant issues in cafeterias, including a labor shortage due to low wages and high COVID risks of working in a school setting.

# Producers/Manufacturers

We surveyed 19 farmers to gain information about what types of products they produce and how they distribute their products in Lowell. Based on the survey results, we found that most farms are not advertising or selling their products in Lowell. Rather, farms are counting on residents to come to them, or are going to farmers markets in other locations.

Interviews and survey responses indicate that the two farmers markets in Lowell which are open to outside vendors are difficult to access or do not present a high enough return on investment for farmers to attend. Farmers also indicate that they are unsure how to break into the market in Lowell, who to talk to, or that they don't produce enough to make retail sales in the city worthwhile. Some farmers indicate that they would be interested in selling in Lowell if access to farmers markets or other retail or wholesale opportunities were easier or more readily available.

## Local Farms

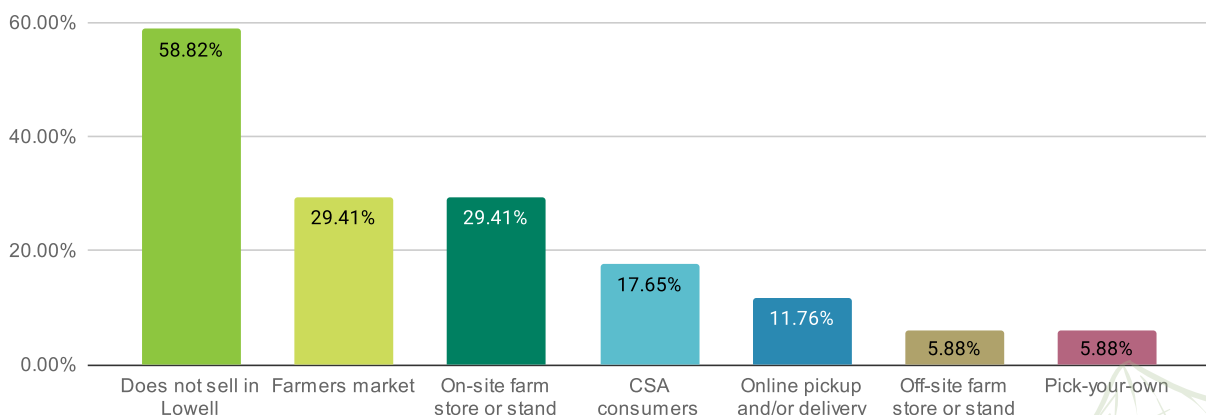
Within 30 miles of Lowell, MA we identified 202 operating farms. We sorted the farms into categories based on products they advertised:

- 106 Vegetable growers
- 85 Fruit growers
- 44 Meat producers
- 41 Value-added producers (jams, sauces, cheese, etc)
- 34 Egg producers
- 26 Dairy producers
- 18 Honey producers
- 93 Farms advertised other products

We also analyzed the types of ways in which producers sold their products:

- 88 offer Community Supported Agriculture (CSA) programs
- 66 have public farm stands or markets
- 33 offer pick your own fruit or vegetables

Please select the way(s) in which you sell your products directly to consumers in Lowell, if applicable. Select all that apply.



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# Future Programming and Recommendations

## Recommendation Areas

Based on the research findings of the Community Food Assessment, we organized the recommendations into five areas:

1. Affordability
2. Retail
3. Urban Agriculture
4. Education
5. Quality of Life

## Affordability

The main barrier that Lowell residents face pertaining to food affordability is they don't have enough purchasing power to afford the kinds of foods they want and need to support the health and wellbeing of themselves and their family members.

## Strategies to Address Affordability Barriers

- Increasing the amount of benefits given to people
- Increasing the enrollment in benefits programs
- Increasing food purchasing power through increasing income
- Increasing food purchasing power through increasing food budget as share of household budget via subsidy of non-food household expenses
- Reducing food costs

## Grassroots Solutions to Affordability

### *Mutual Aid*

Mutual aid is when people get together to help each other and themselves. It looks like people organizing to meet the needs of the community that are not being met by existing institutions, government, or social systems/structures. It's based on people sharing knowledge, resources, and time, and building relationships rooted in cooperation and solidarity. Mutual aid is when people give what they can and get what they need in a community setting, unmediated by an organization or agency.

### Mutual Aid Examples

- Neighbors coordinating food shopping trips and lists: i.e., one person goes to wholesale club; one person goes to farm stand; one person goes to cultural grocery; one person goes to supermarket
- Food share: neighbors prepare food to share with others
- Ride Share: neighbors offering rides to each other or going shopping at the same time
- Bulk ordering: many respondents indicated that they'd like to purchase in bulk, or purchase higher quality food that is currently outside their price range, purchasing in bulk and then splitting the purchases might help with cost and logistics
- Community meals: neighbors cooking for each other

## Organizational Solutions to Affordability

### *SNAP enrollment & Cost of Living Assistance*

SNAP enrollment in Lowell is at an all-time high, with almost 30,000 people enrolled in this federally funded, state implemented food assistance program. Even at these high levels, there are tens of thousands more residents who qualify for SNAP but are not enrolled. Focusing on this "SNAP Gap" would lead to more residents getting a boost to their food purchasing power via SNAP benefits.

At the same time, there are many people in Lowell who do not currently qualify for SNAP, but experience food insecurity due to lack of purchasing power for food. For these people whose income is too high to qualify, but too low to actually afford the high cost of living, we need organizations to initiate programs that provide financial assistance for housing, childcare, healthcare, utilities, transportation, education, and other costs that reduce household food budgets.

## Policy Solutions to Affordability

### *SNAP reform to reduce red tape and increase accessibility*

There's a limit to what we can do as one small community to create more affordability of food. We also know that what residents of Lowell are experiencing is not unique. Therefore, we must work in solidarity within the food justice movement to create and support upstream policy shifts that create more long-term solutions for affordability and food security in Lowell, in Massachusetts, and across the country.

Specific policies that impact affordability include increasing SNAP, WIC and other supplemental nutrition benefits while also reducing the red tape processes and restrictive requirements for eligibility. At the state level, expanding the MA state Healthy Incentives Program will help more people buy and eat fresh, locally grown fruits and vegetables, the most valued but unaffordable food, according to CFA respondents.



Image credit: Steering Committee Member

# Retail

Most people rely upon food retailers as a source of most of their food. The main barriers Lowell residents experience regarding food retail are physical access and limited food selection that aligns with shoppers' food values.

The most desirable foods for Lowell shoppers are: fresh produce, proteins, and organic/sustainably produced foods. Yet, when we look at retail offerings, only 1 in 5 Lowell food retailers offer an appealing variety of fresh produce. Less than half of food retailers sell meats. While we did not specifically capture data regarding organic or sustainably produced foods, anecdotal evidence suggests that these kinds of foods are only offered in significant quantities at supermarkets, food wholesalers and department stores, of which there are only 7 (out of 136 total food retailers) in Lowell.

## Strategies to Address Retail Barriers

- Affordable food retail that's accessible to everyone, everywhere
- Better transportation options to bring people to sources of affordable, nutritious and culturally connected foods
- Delivery options to bring affordable, nutritious and culturally connected foods to peoples' homes or community pick up locations
- More foods aligned with Lowellians' food values in retail venues

## Grassroots Solutions to Retail

### *Alignment between food retailers offerings and Lowell residents' food values*

As detailed above, food retailers are not selling what shoppers are looking for. A grassroots solution to this issue would be better market research and inventory correction by food retailers. Retailers should be stocking more fresh foods (vegetables, fruits, meats), more culturally aligned foods (fresh and pantry items), and more organic foods. While there are barriers intrinsic to this strategy, we must start by addressing the opportunity that many retailers are missing.

Similarly, there is a need for additional food retail locations in Lowell, especially those that provide fresh produce. This could look like more farmers markets or mobile markets across the city on more days or a program for people to get free or low cost delivery of these items to their homes. Residents also mentioned food co-ops, natural food stores or green grocers as a desirable addition to the retail landscape.



## Organizational Solutions to Retail

*Increase number of retailers accepting food benefits SNAP, WIC and HIP*

Of the 136 food retailers in Lowell, there are 32 that do not accept SNAP or WIC. Currently, Mill City Grows Mobile Markets (schedule varies by season) and The Farm Market (Sundays at Mill No. 5) are the only Farmers Markets with HIP vendors in Lowell. Recruiting and supporting additional vendors to accept these benefits would increase food access and affordability.

## Policy Solutions to Retail

*Address gaps in transportation and delivery programs; and introduce incentive programs for vendors to stock high quality, fresh foods and accept food benefits*

While additional food retailers are necessary to meet the food needs of the community, there must also be transportation and delivery solutions such that food offerings from supermarkets, wholesalers, department stores, and specialty/cultural markets are available to all regardless of physical proximity or vehicle ownership.



*Image credit: Steering Committee Member*



# Urban Agriculture

Urban agriculture is a growing trend in many American cities, and it provides many benefits to urban communities, including increased food security for residents. The main barriers Lowell faces to expanding urban ag are: not enough spaces to garden, soil contamination issues, local laws that limit what kinds of urban agriculture are allowed, and residents lack of skills and knowledge.

## Strategies to Address Urban Agriculture Barriers

- Increase physical spaces specifically for urban agriculture
- Improve local urban agriculture policies to expand allowed practices
- Increase residents' urban agriculture education opportunities

### Grassroots Solutions to Urban Agriculture

*Add more gardens across the city, both community gardens in public spaces and raised beds on private property for home gardening*

For residents who have adequate space and infrastructure for a home garden, building raised beds in a front or back yard is a great way for residents to safely produce nutritious, fresh and highly valued crops of their choosing.

### Organizational Solutions to Urban Agriculture

*Increase educational support and garden services for Lowell residents*

Like most cities, Lowell has a legacy of pollution and soil contamination. In order for more residents to safely grow crops, soil testing is necessary to understand what mitigation steps are needed to avoid harmful substances like lead leaching into home harvests. Targeted campaigns to educate Lowell residents about soil testing, as well as other beginner gardener information would help more residents feel prepared to launch their own home gardens.

### Policy Solutions to Urban Agriculture

*Local ordinance allowing agricultural practices by right, expanded commitment to community gardens, and tax benefits for landowners using land for food production*

Unfortunately, there are some misconceptions held by public officials and municipal administrators regarding urban agriculture. Growing trends supporting not only urban gardens, but also urban animal husbandry (chickens, rabbits, bees, etc.) have laid the groundwork for Lowell to follow to introduce a comprehensive urban agriculture ordinance and policy that not only makes it possible for people to raise food in Lowell, but also creates tax benefits for any landowners choosing to create/allow agricultural activities on their property.

# Education

The lifestyle, social and economic changes of the last four decades has left us with a generation of people with underdeveloped cooking skills and/or interest. There is still a real lack of food knowledge that prevents people from eating good food. A lack of understanding about nutritional guidelines by home cooks leads to feelings of helplessness in creating healthy meals at home. Additionally, many Lowell residents' negative experiences with fresh foods spoiling in the fridge before they can be cooked has turned them off from scratch cooking.

## Strategies to Address Education Barriers

- Increase awareness of existing food education programs
- Increase funding for food education specific to community needs
- New educational programming that synthesizes nutrition, meal planning, food preservation, and basic cooking skill development

### Grassroots Solutions to Education

*Cooking skill shares and mentor programs among friends, family and neighbors*

Cooking alone, especially when one is an inexperienced cook, can be daunting, difficult, and ultimately unsuccessful. A grassroots effort to create social cooking opportunities, where more experienced home cooks can demonstrate food skills, knowledge and strategies, will make cooking more accessible and engaging for novices. Organized skill shares and ongoing mentorship relationships to support new cooks, builds on valuable community assets and cultural knowledge.

### Organizational Solutions to Education

*Wrap around training and transitional training for clients*

Holistic wellness programs offered to residents should incorporate nutrition, meal planning, food budgeting, and cooking modules. Specific cultural diets and food traditions should also be taken into account when designing curricula and enrolling participants. Food preservation education is important to teach people how to store food to prevent spoilage and waste, especially for participants with low income. Specific food training designed for people transitioning to independent living must also consider additional barriers and challenges this population faces, including lack of kitchen access, lack of kitchen tools/equipment, and complex health conditions.

## Policy Solutions to Education

*Develop new and consistent funding streams and standards to support food education, as well as public resources that can be leveraged for food education*

The need for public financial resources to bolster food security is not limited to funding food benefit programs. Educational programs must be implemented across the community for people of different ages, cultures, health conditions and housing status. Schools, nonprofits, and institutions cannot provide enhanced education, training and support without funding for dedicated staff and resources. State and federal funding should be committed to improving public education and community programs that improve people's food knowledge and skills. Additionally, municipal resources, such as access to public buildings, can be leveraged to make these programs more accessible and available to all residents.



*Image credit: Mill City Grows*

# Quality of Life

Quality of Life barriers to food security present themselves mostly as barriers to preparing food in the home: people report not having enough time, energy or food storage infrastructure in their homes to cook. The time and energy needed to prepare food at home includes planning time, shopping time, food preparation time and clean up time. Adequate food storage includes dry storage, refrigeration and freezer space.

## Strategies to Address Quality of Life Barriers

- Quality of life improvements around time, income, health, housing
- Improve food storage infrastructure in homes
- Improve municipal and institutional food infrastructure

### Grassroots Solutions to Quality of Life

#### *Community Meals*

Create community food support programs that aim to batch time-intensive work like shopping, planning or preparing food among more community members. This could include strategies like multiple households purchasing bulk goods together, stores offering pre-packaged ingredients for specific meals, or people cooking meals to serve multiple households.

### Organizational Solutions to Quality of Life

#### *Food Consultants and support programs*

Provide support to households struggling with time, energy, knowledge and logistical barriers. This could include strategies like, providing shopping assistance, classes on meal planning and preparation, ongoing support and technical assistance for meal planning and food prep, and providing critical services such as childcare or transportation to residents who require them. Additionally, households struggling with storage and infrastructure in the home could use organizational infrastructure, or benefit from mini-grant programs to improve home infrastructure.

### Policy Solutions to Quality of Life

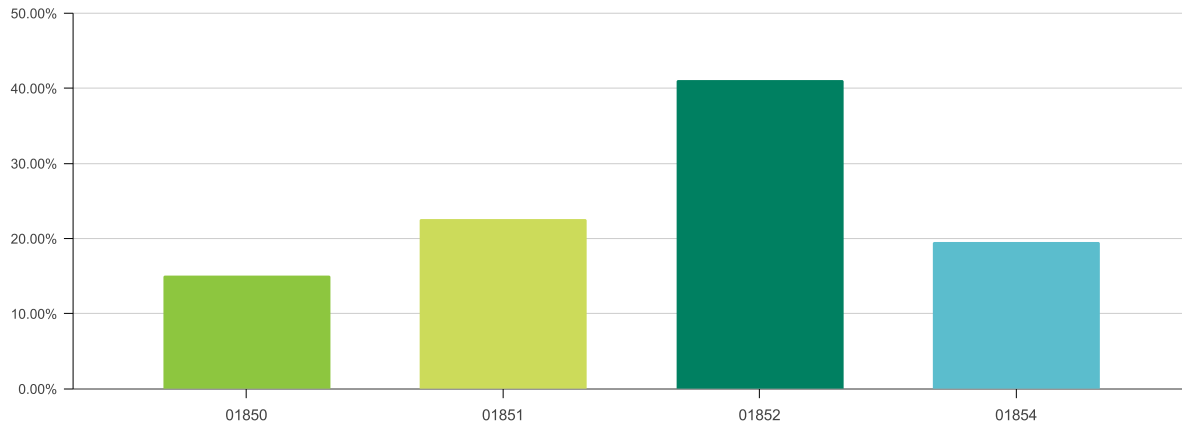
#### *Increased access to municipal food infrastructure and reduced red tape for food distribution*

At the city and state level there are many forms of food infrastructure that are currently underutilized. Could households struggling with time and infrastructure, or organizations who are helping them, access this infrastructure in a sustainable manner? City and state policy can also provide more funding opportunities for households who are struggling with infrastructure needs, childcare and transportation. Finally, what barriers and red tape can be reduced or removed to facilitate more bulk purchasing or food distribution programs among community members.

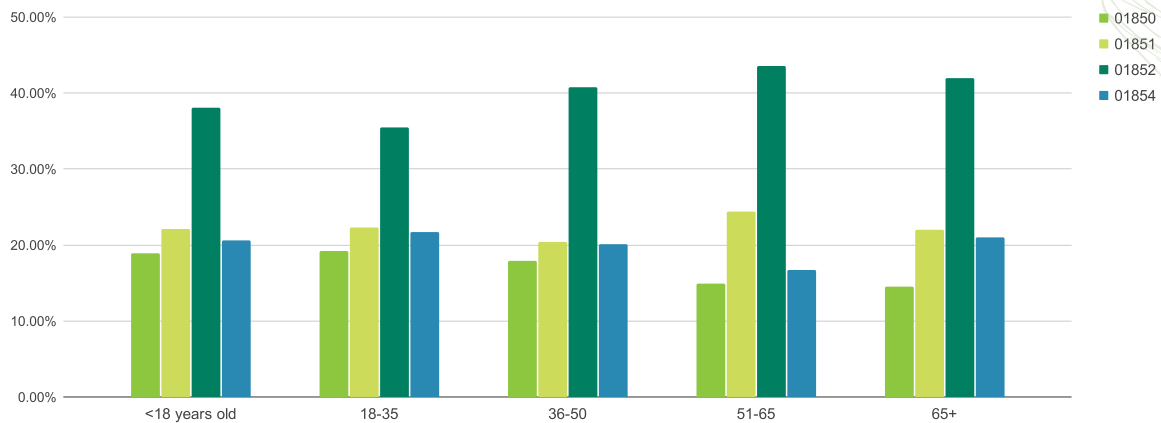
# Appendix A: Resident Survey

Question 1: What zip code do you live in? This will help us learn how different neighborhoods interact with food in Lowell.

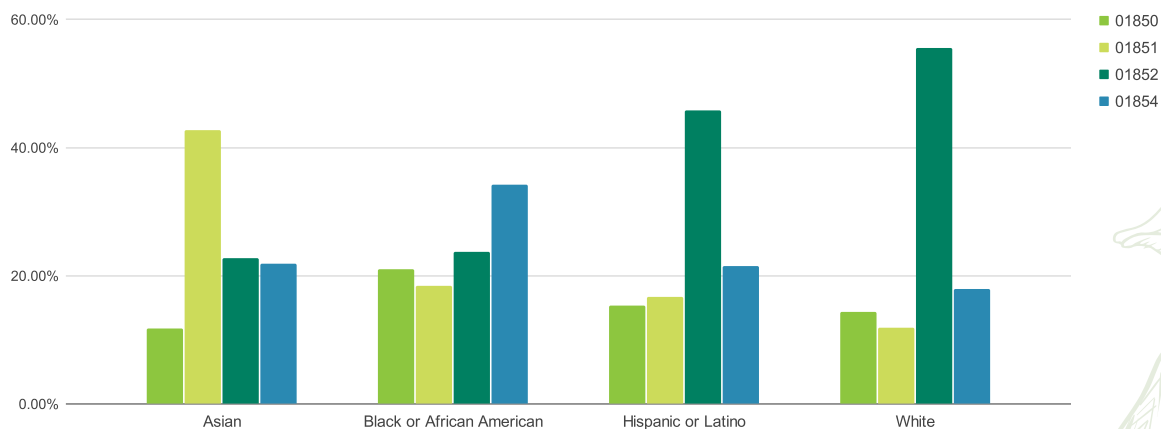
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What zip code do you live in?



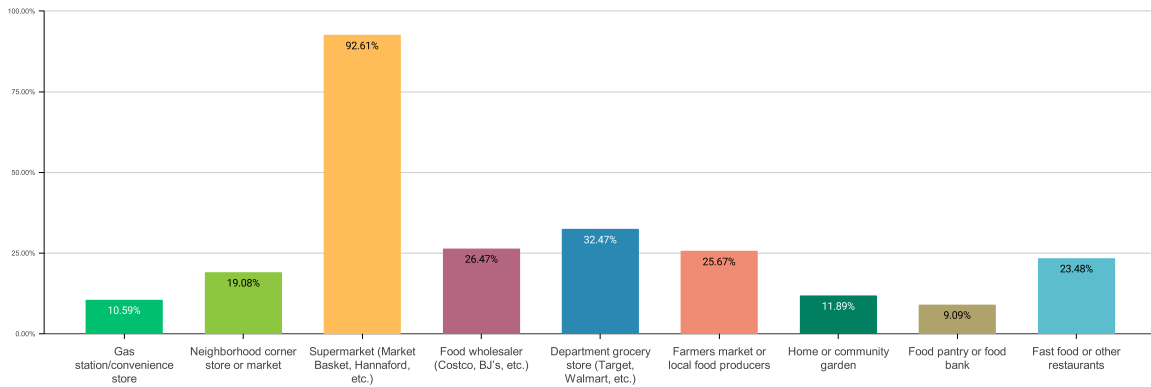
What zip code do you live in?



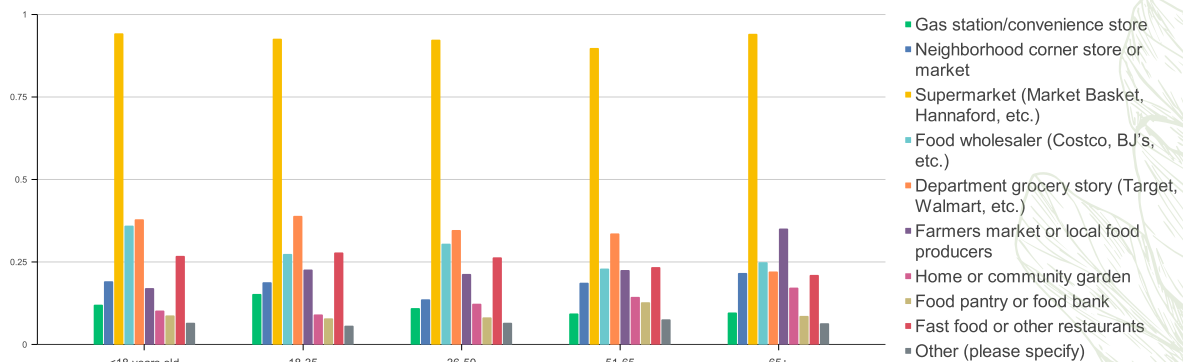


## Question 2: Please select 1 to 3 places or methods in which you most often access your food.

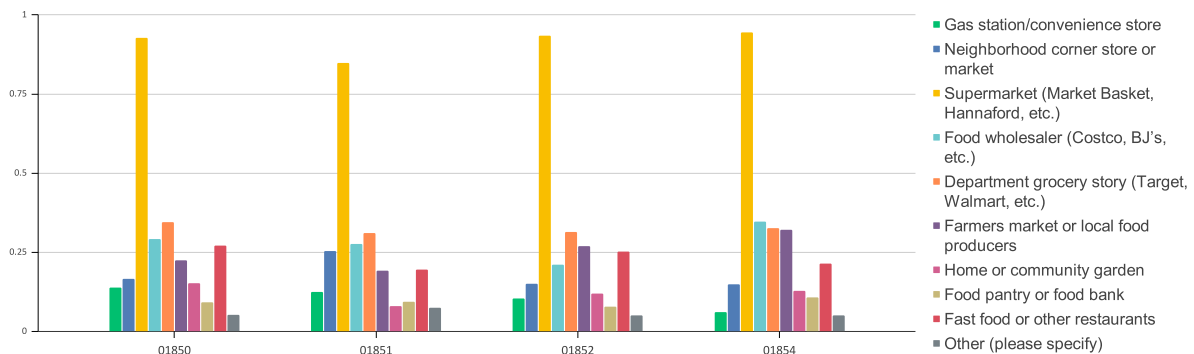
Please select 1 to 3 places or methods in which you most often access your food.



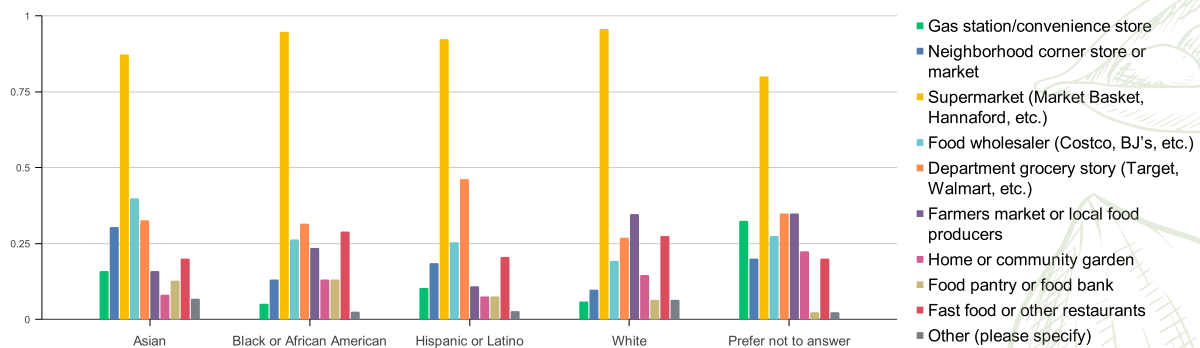
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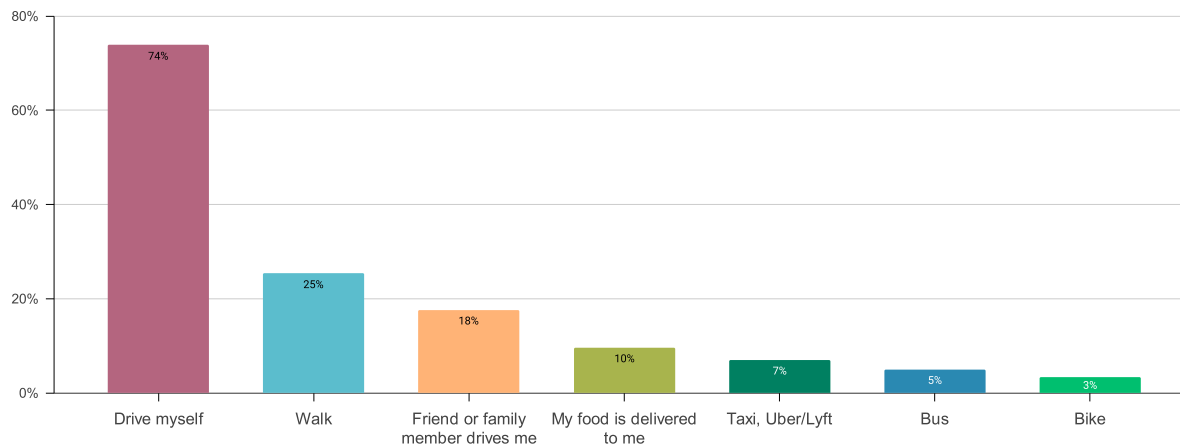


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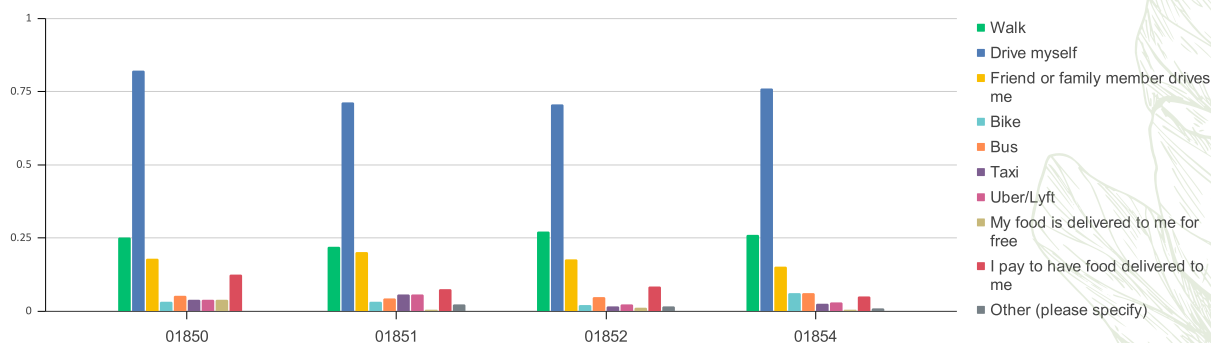


### Question 3: How do you usually get to the place where you get food?

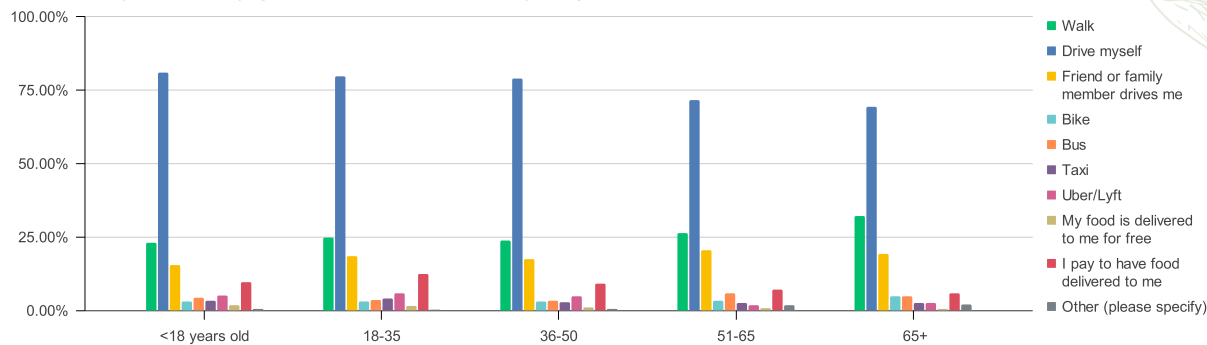
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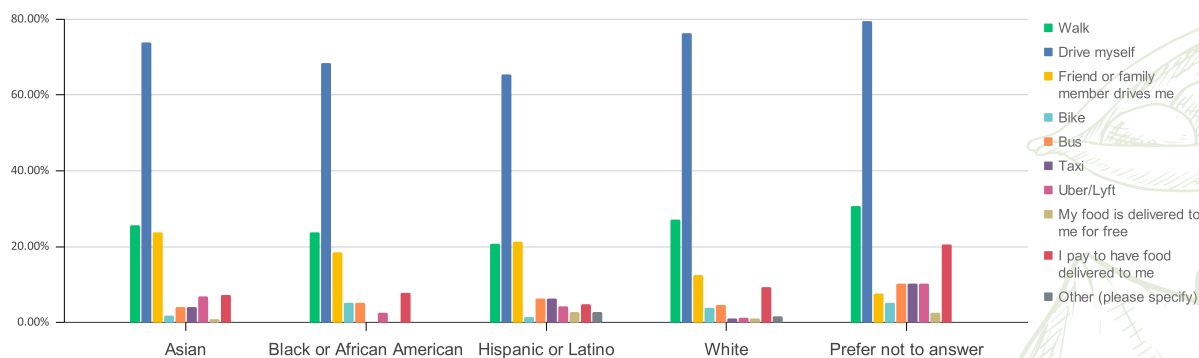
How do you usually get to the place where you get food?



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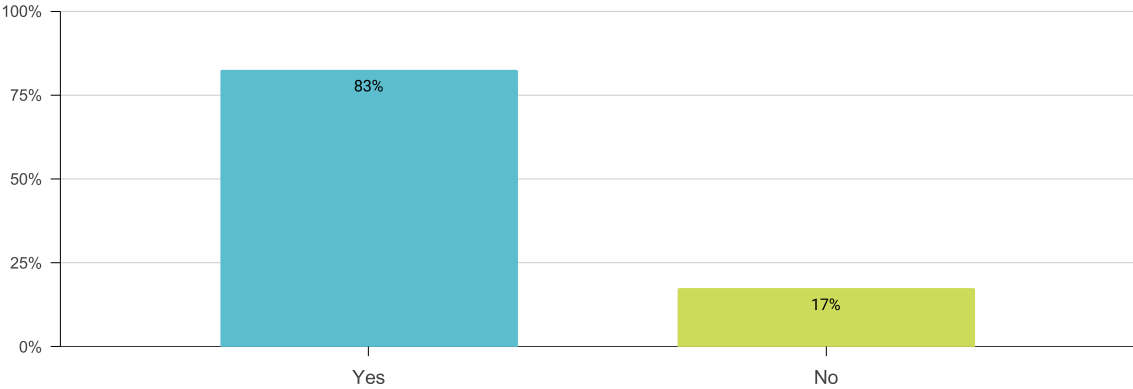


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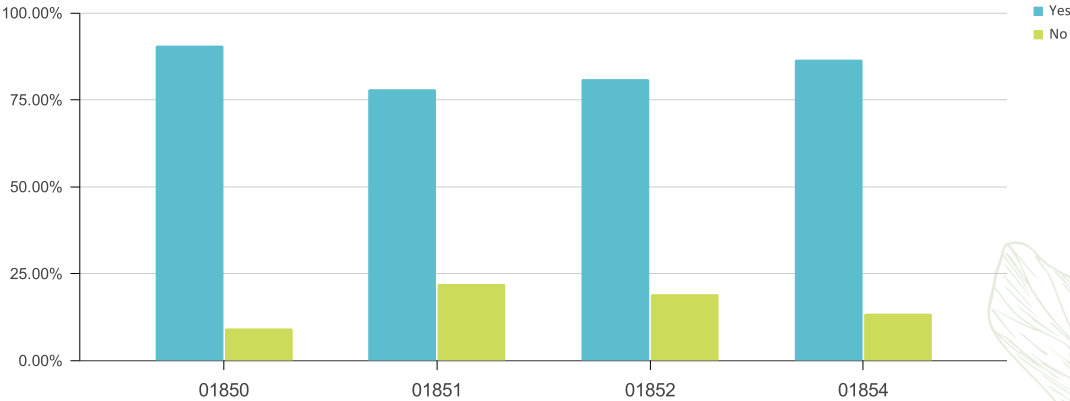


Question 4: Do you primarily get your food within the City of Lowell?

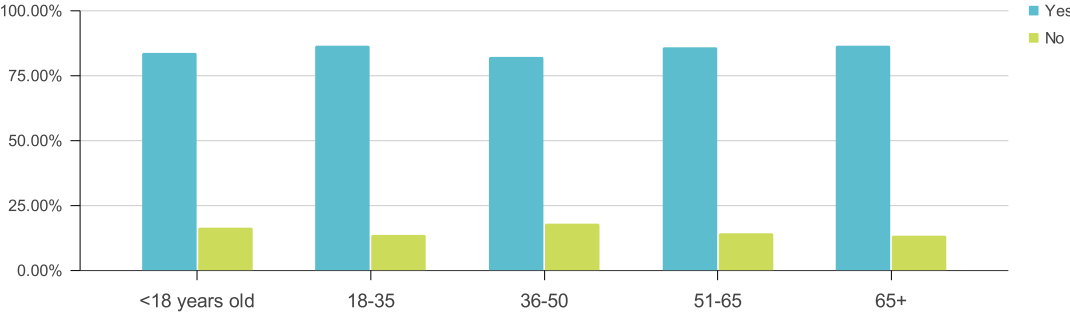
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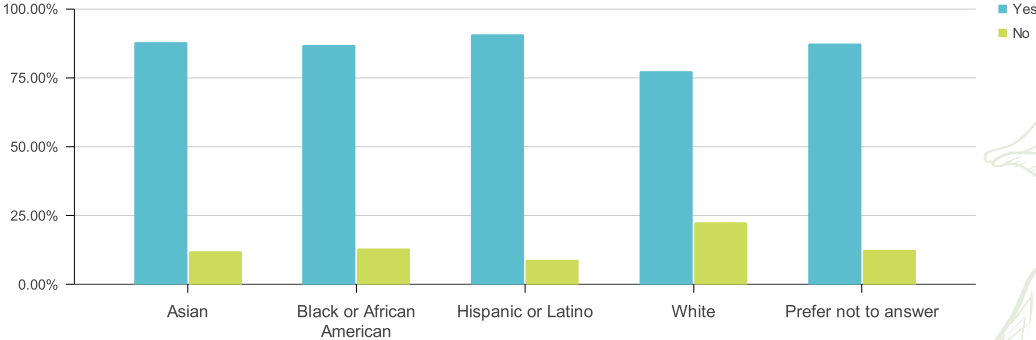
Do you primarily get your food within the City of Lowell?



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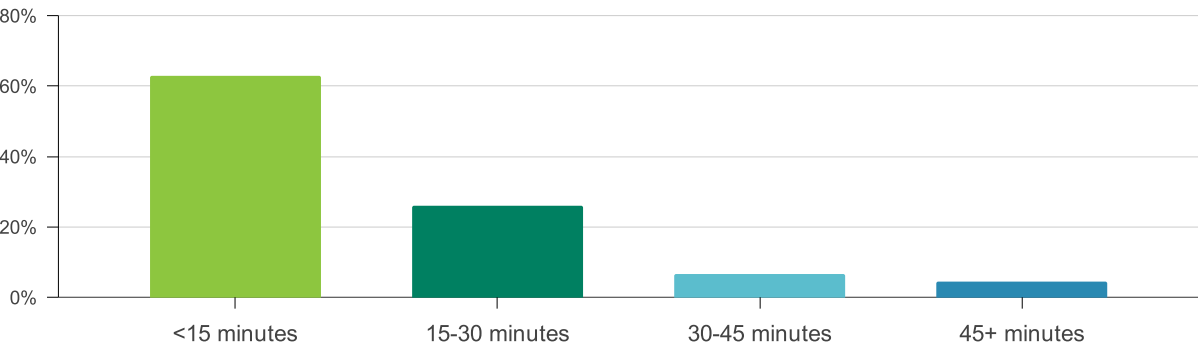


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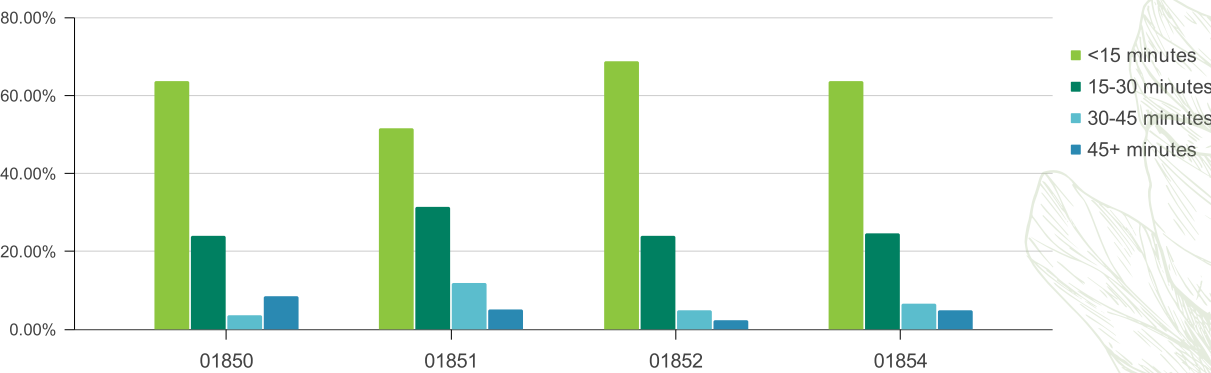


Question 5: How long does it usually take you to get to the store to get food (one-way)

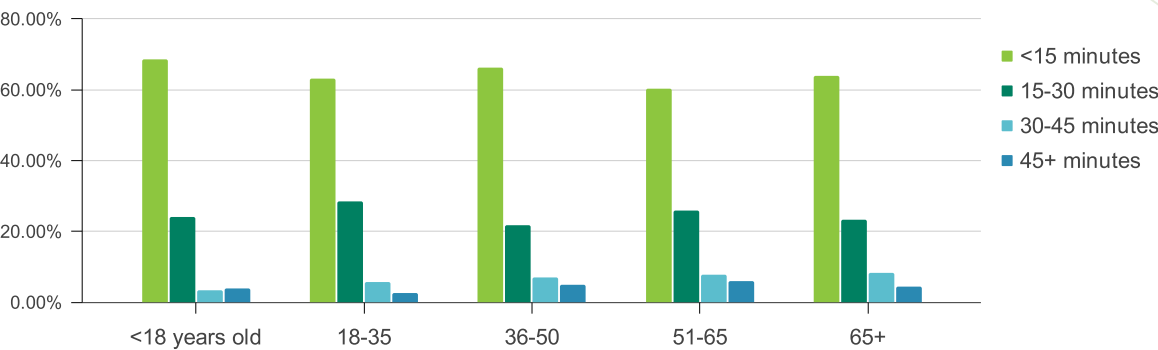
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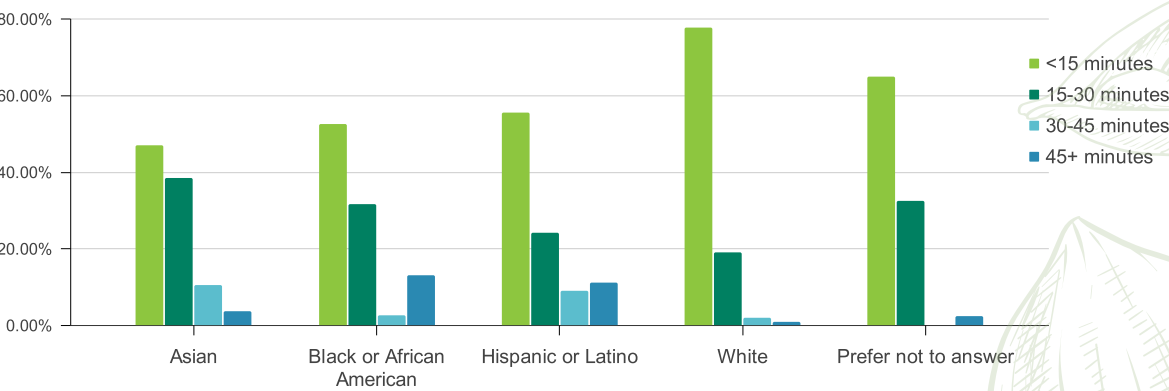
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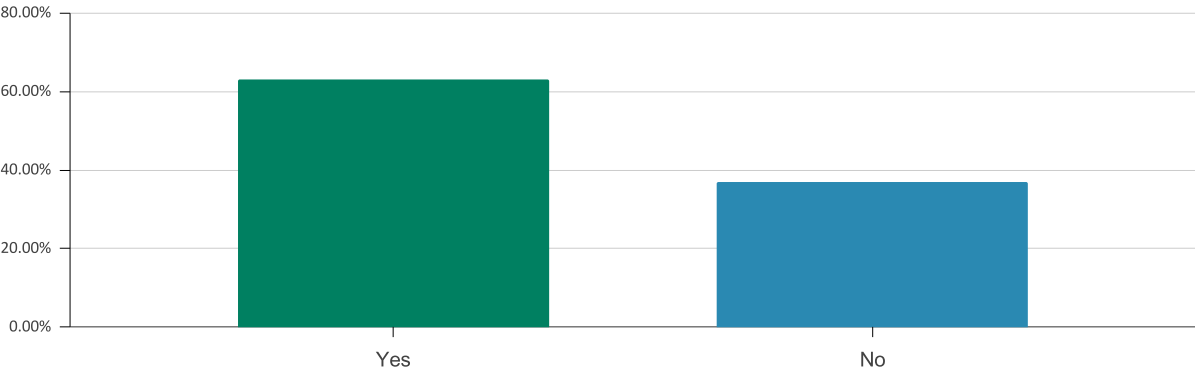


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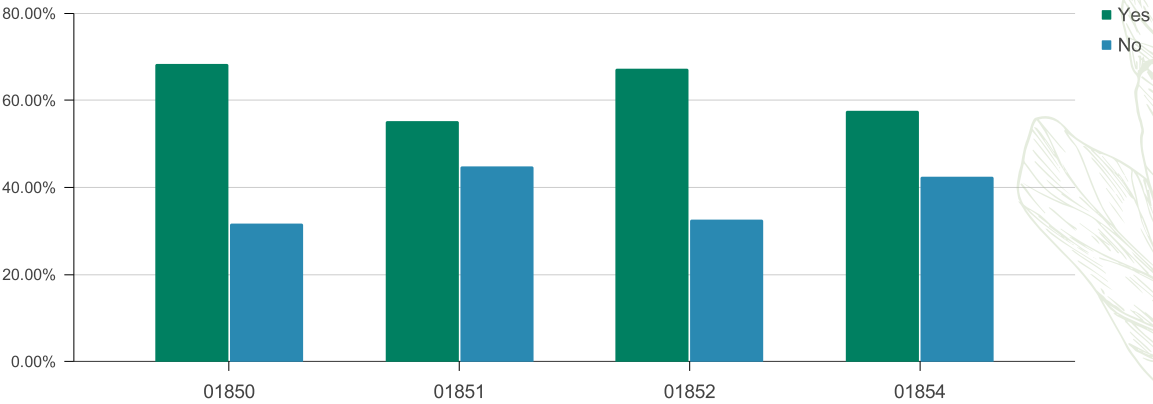


Question 6: Do you feel like you usually have enough money to buy the food you want to eat?

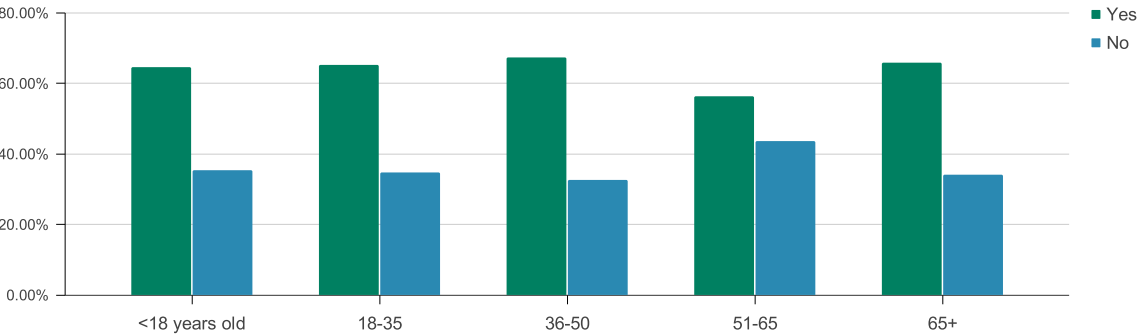
Do you feel like you usually have enough money to buy the food you want to eat?



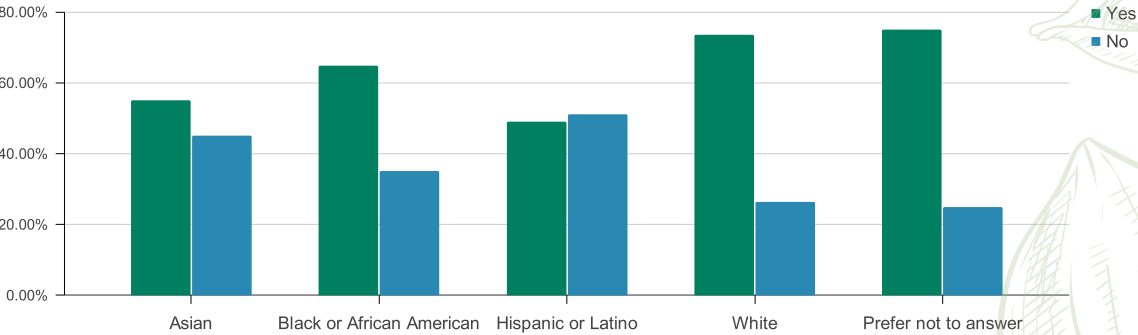
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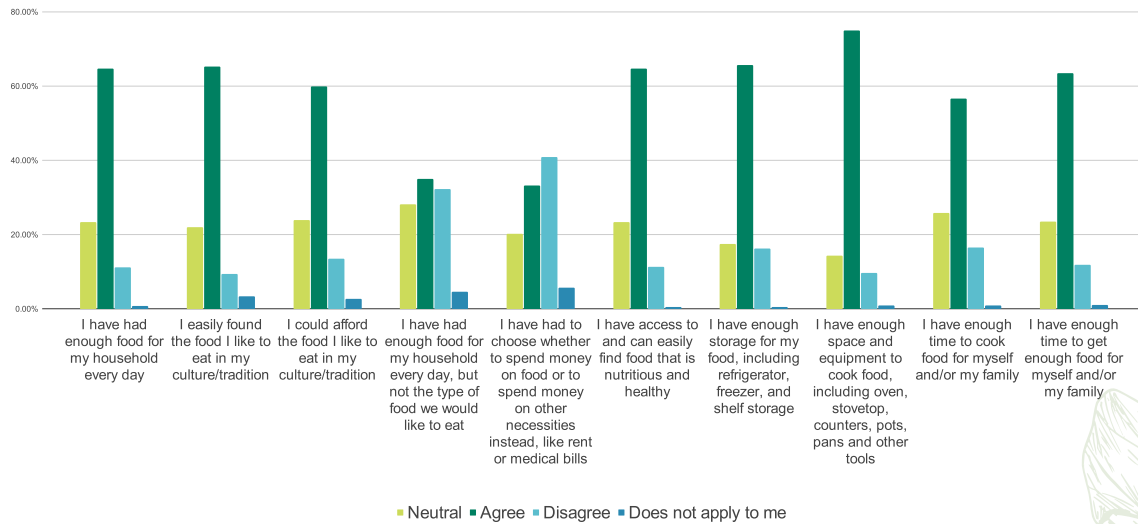
Do you feel like you usually have enough money to buy the food you want to eat?





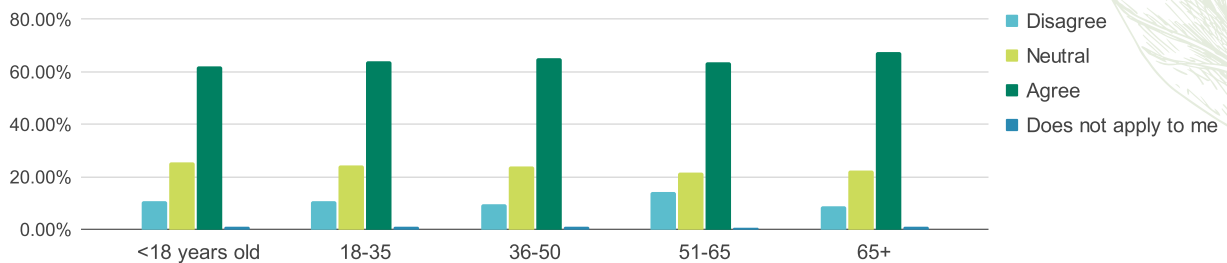
Question 7: Please rate the following based on how much you agree with each statement:  
(Scale = disagree, neutral, agree)

Please rate the following based on how much you agree with each statement. During the past 12 months...

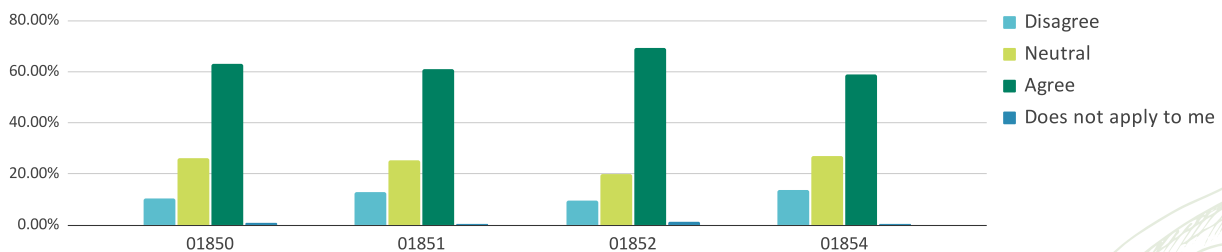


Question 7a: I have had enough food for my household every day

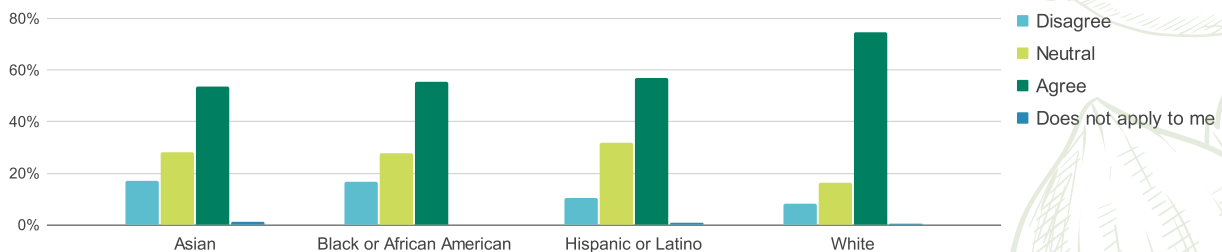
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I have had enough food for my household every day

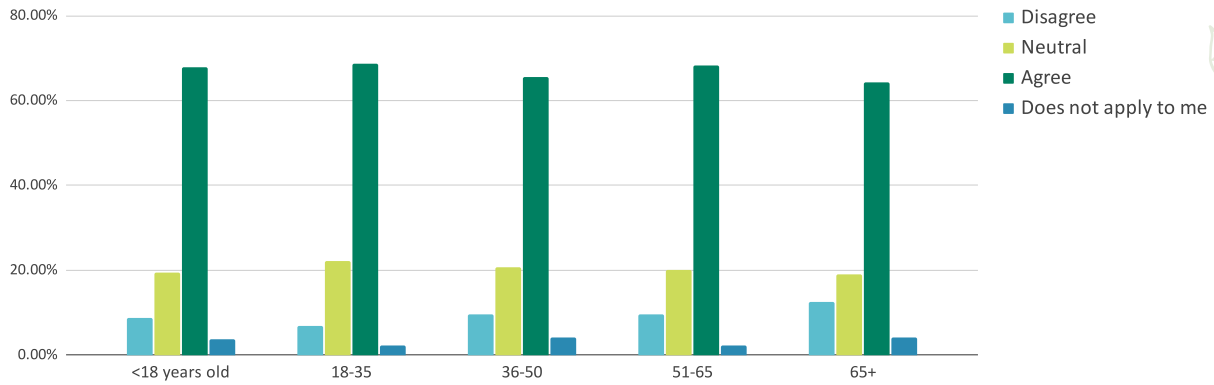


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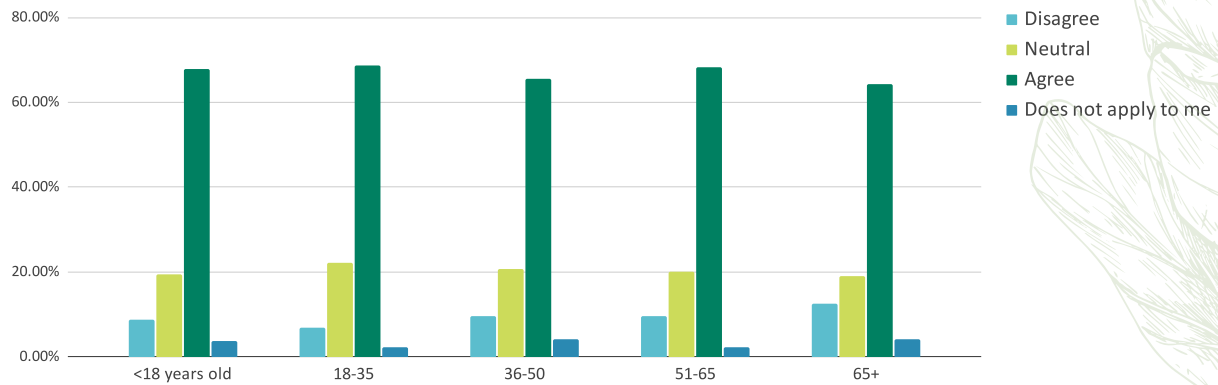


## Question 7b: I easily found the food I like to eat in my culture/tradition

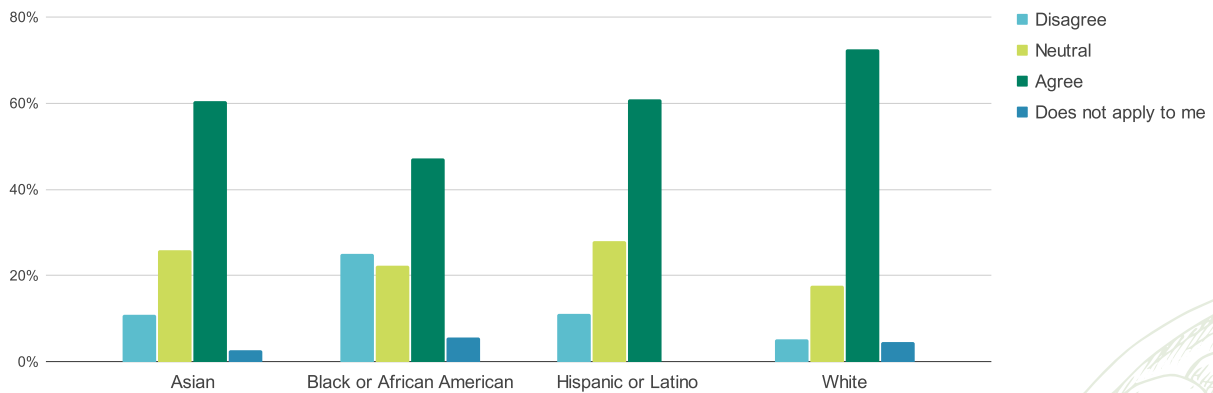
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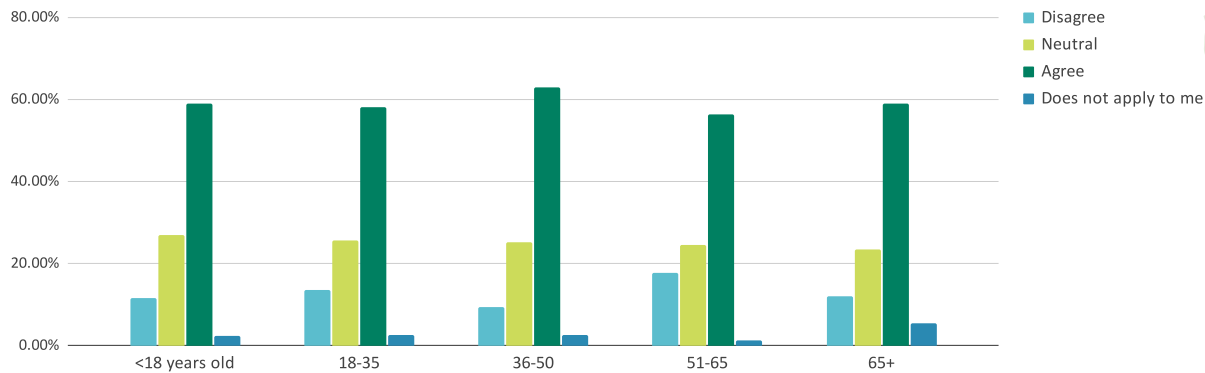


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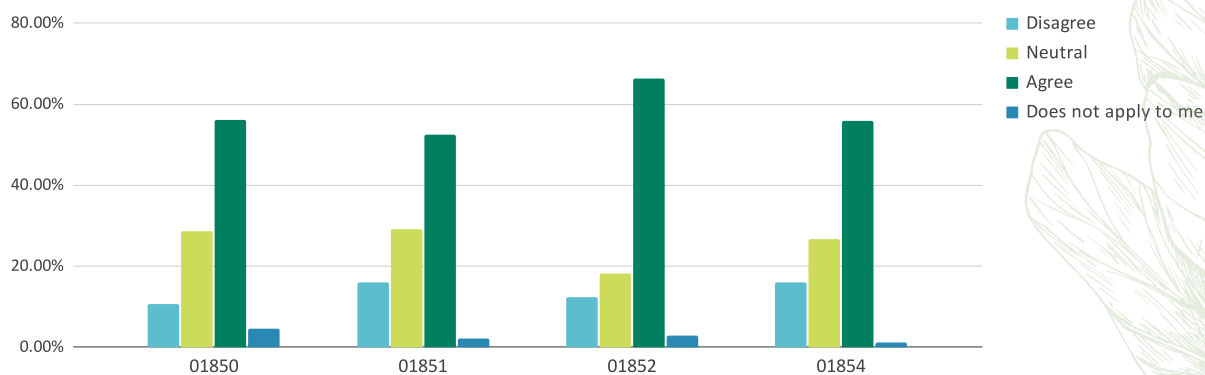


## Question 7c: I could afford the food I like to eat in my culture/tradition

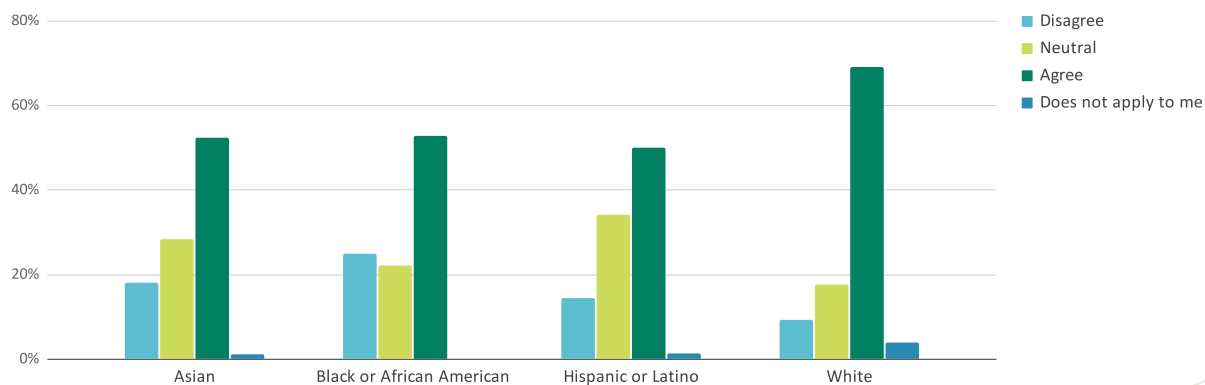
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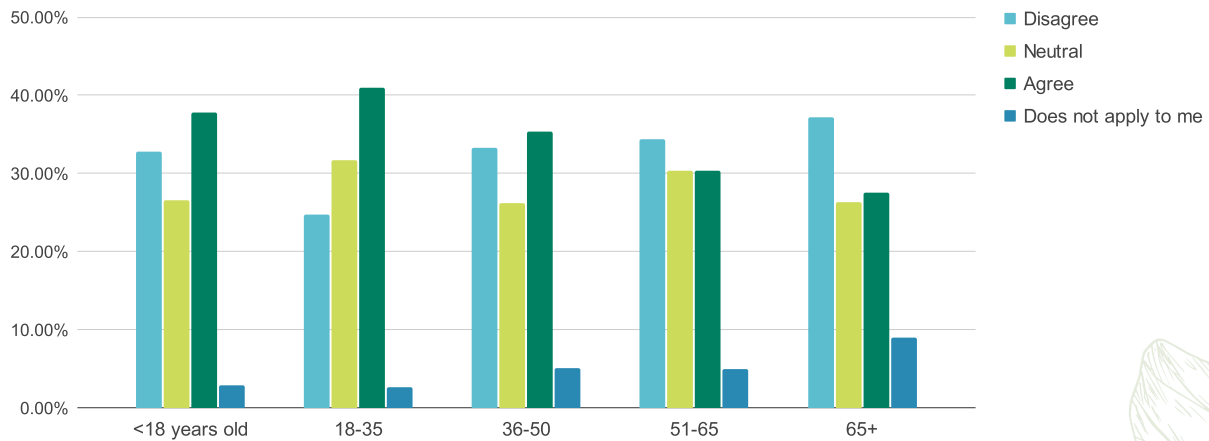


I could afford the food I like to eat in my culture/tradition

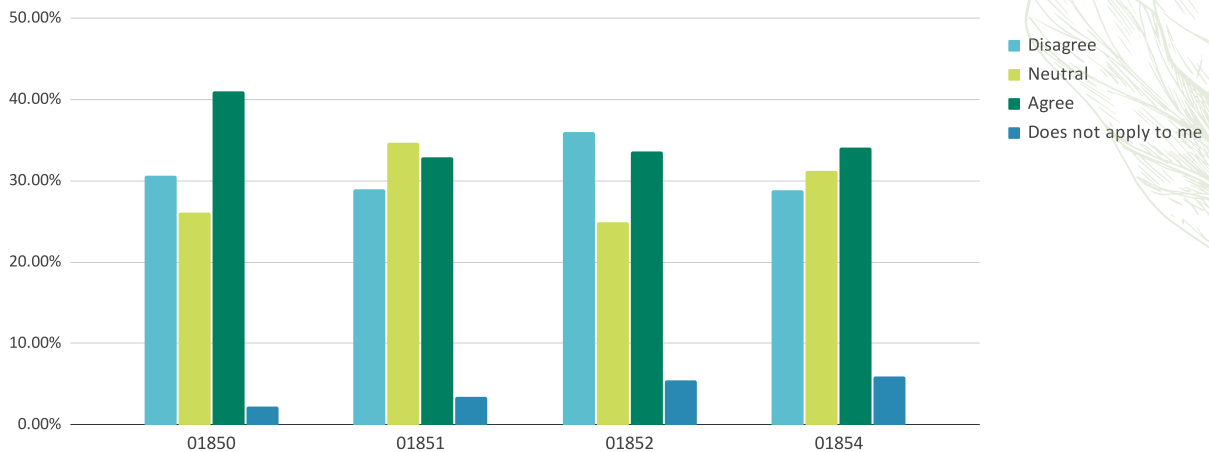


Question 7d: I have had enough food for my household every day, but not the type of food we would like to eat

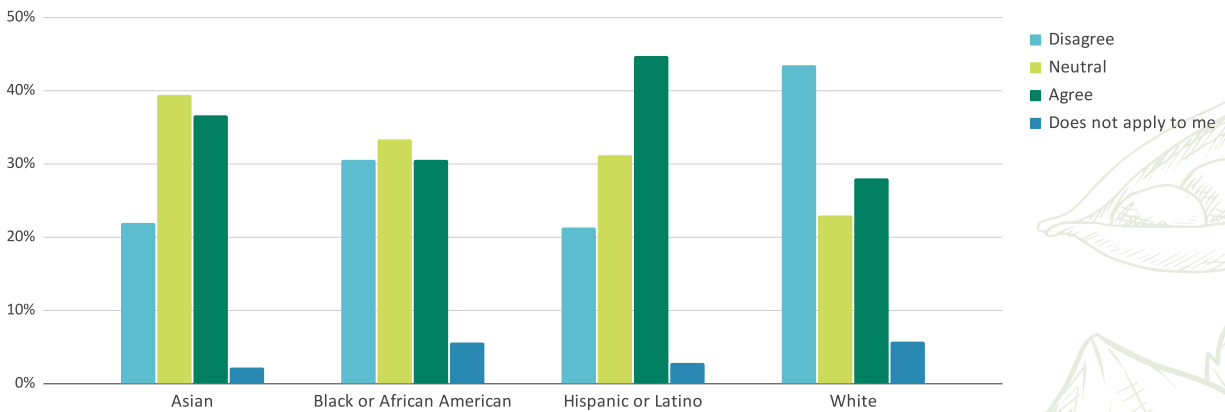
I have had enough food for my household every day, but not the type of food we would like to eat



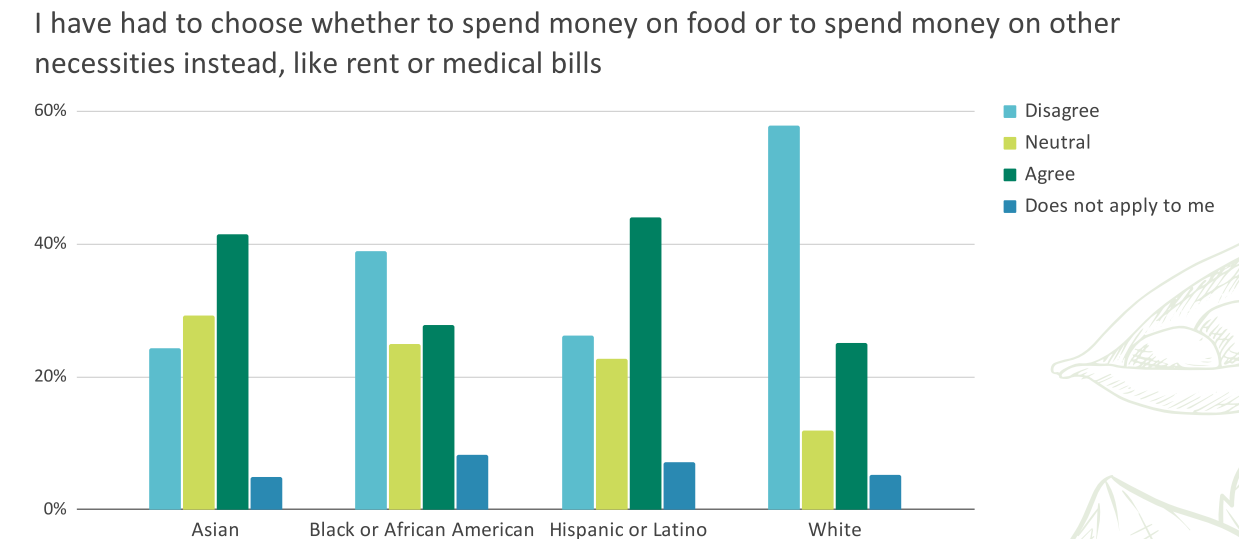
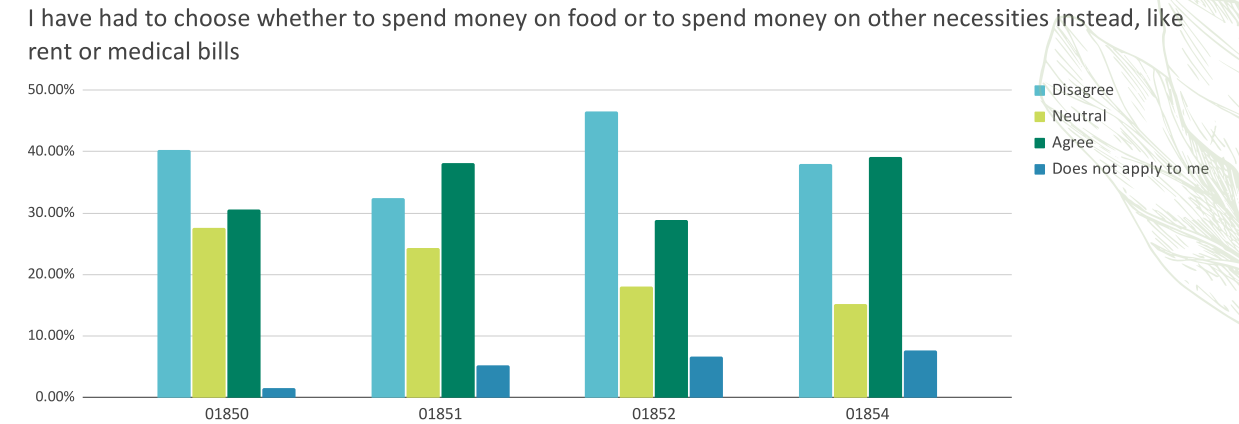
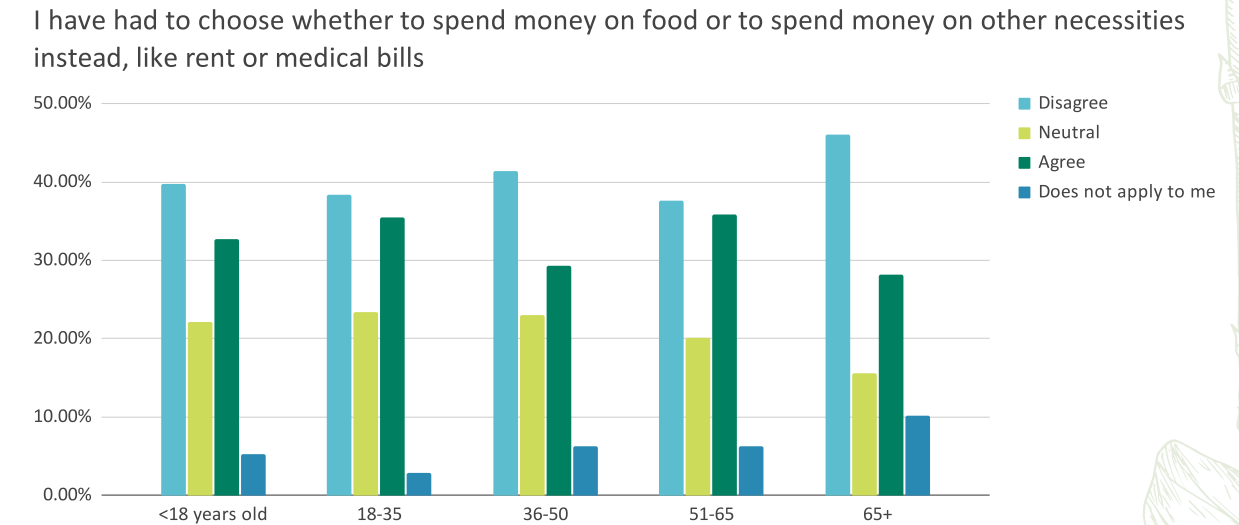
I have had enough food for my household every day, but not the type of food we would like to eat



I have had enough food for my household every day, but not the type of food we would like to eat



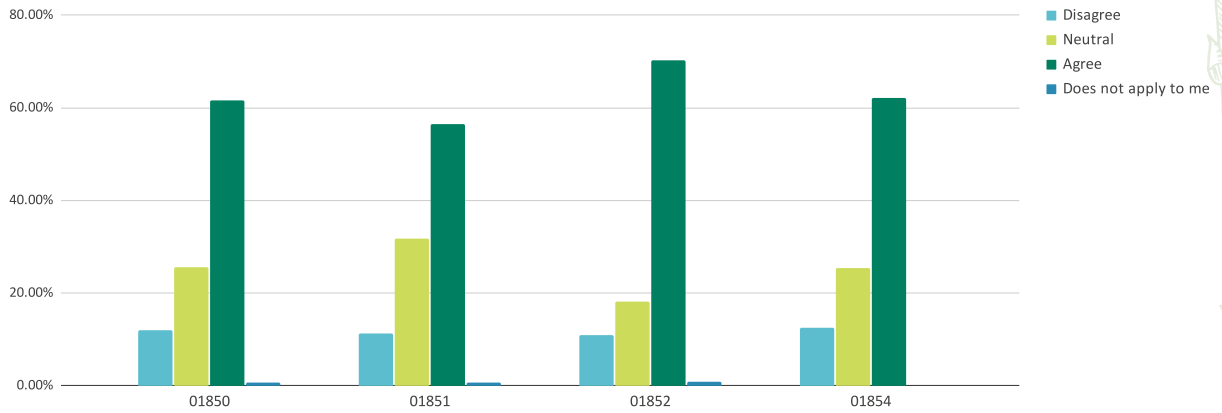
Question 7e: I have had to choose whether to spend money on food or to spend money on other necessities instead, like rent or medical bills



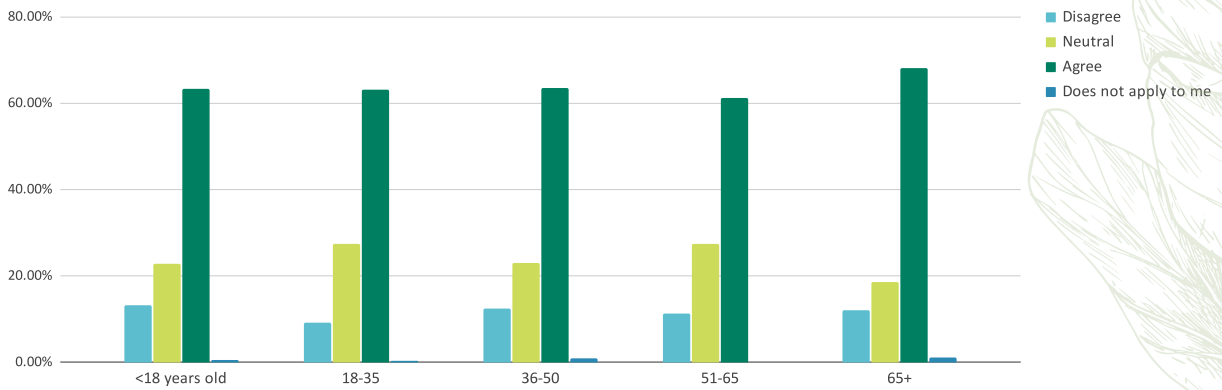


## Question 7f: I have access to and can easily find food that is nutritious and healthy

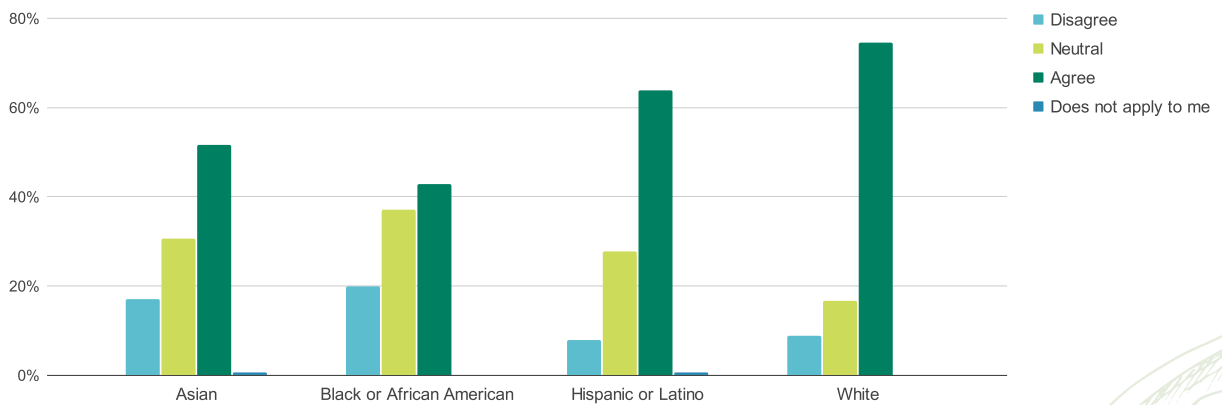
I have access to and can easily find food that is nutritious and healthy



I have access to and can easily find food that is nutritious and healthy

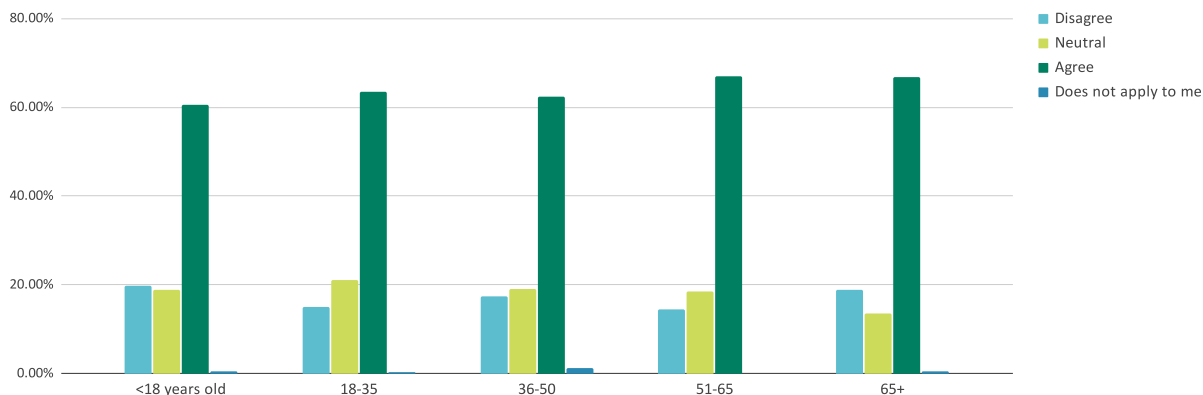


I have access to and can easily find food that is nutritious and healthy

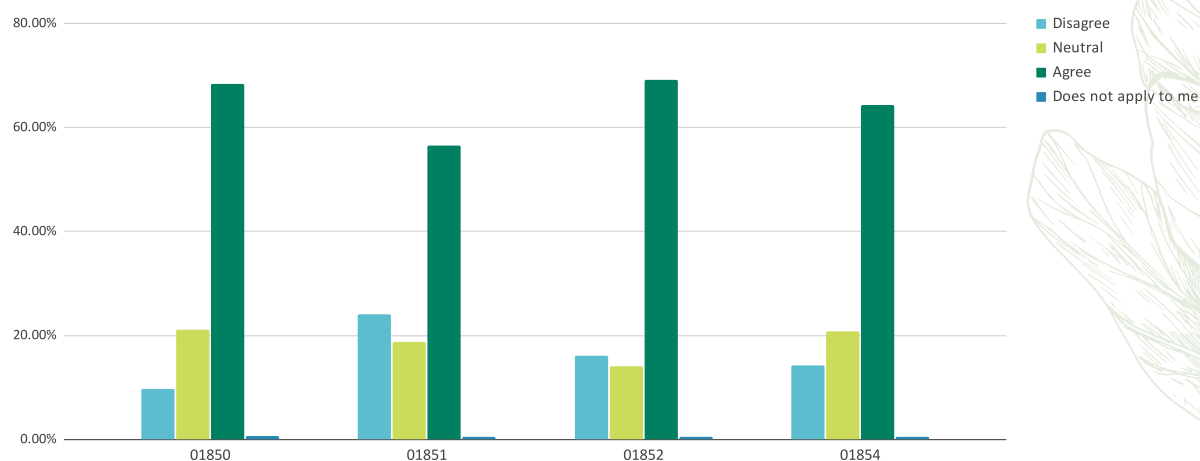


## Question 7g: I have enough storage for my food, including refrigerator, freezer, and shelf storage

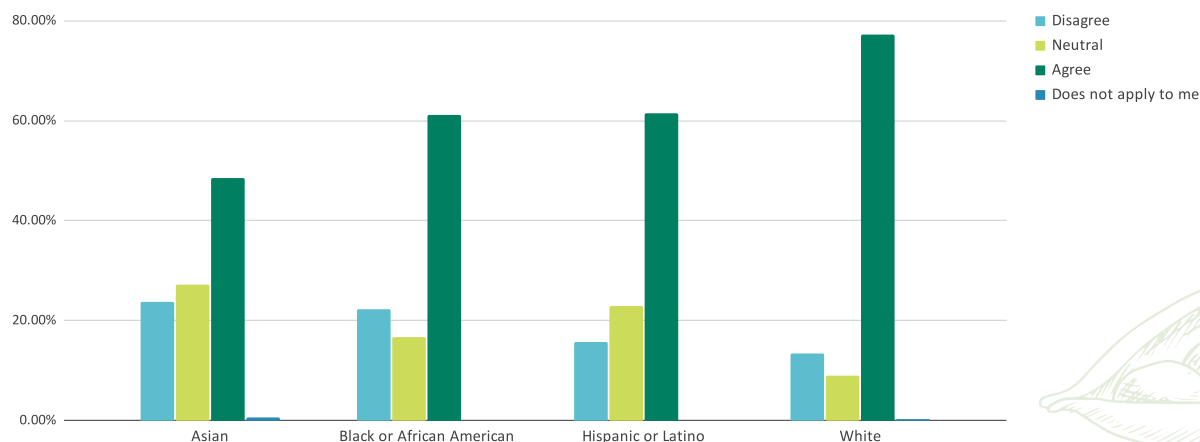
I have enough storage for my food, including refrigerator, freezer, and shelf storage



I have enough storage for my food, including refrigerator, freezer, and shelf storage

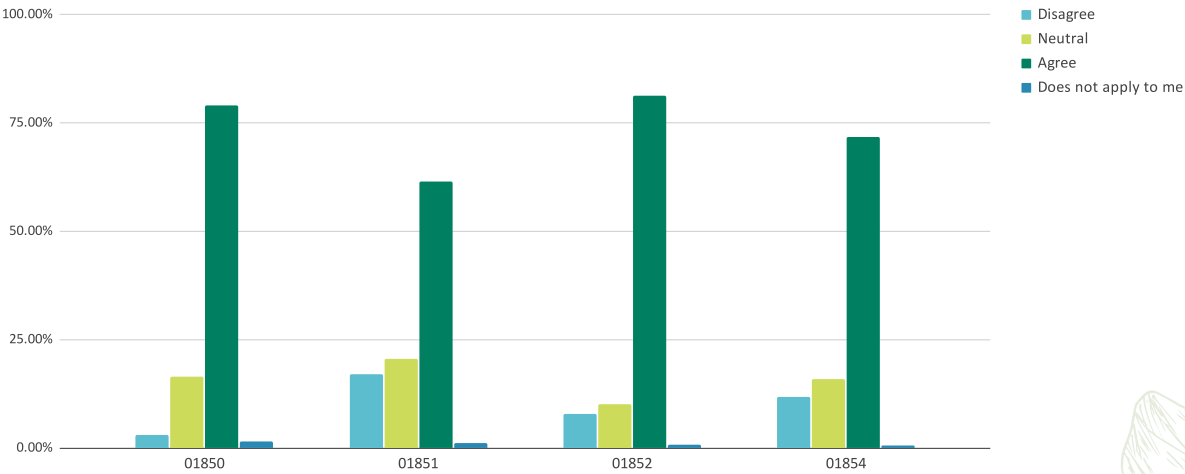


I have enough storage for my food, including refrigerator, freezer, and shelf storage

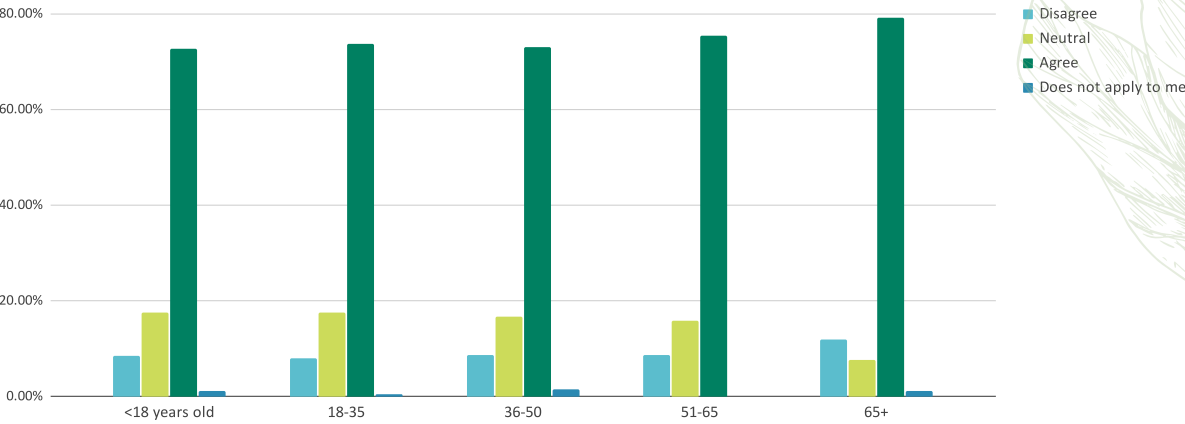


Question 7h: I have enough space and equipment to cook food, including oven, stovetop, counters, pots, pans and other tools

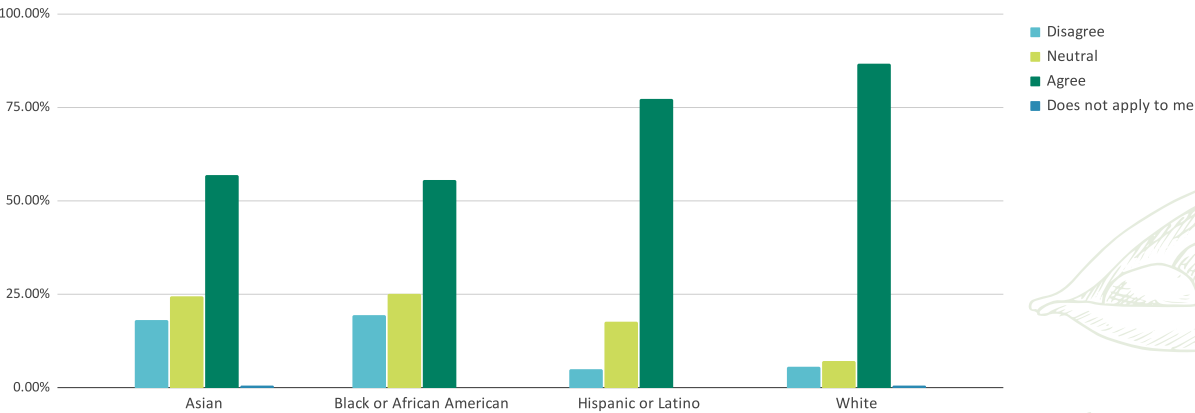
I have enough space and equipment to cook food, including oven, stovetop, counters, pots, pans and other tools



I have enough space and equipment to cook food, including oven, stovetop, counters, pots, pans and other tools

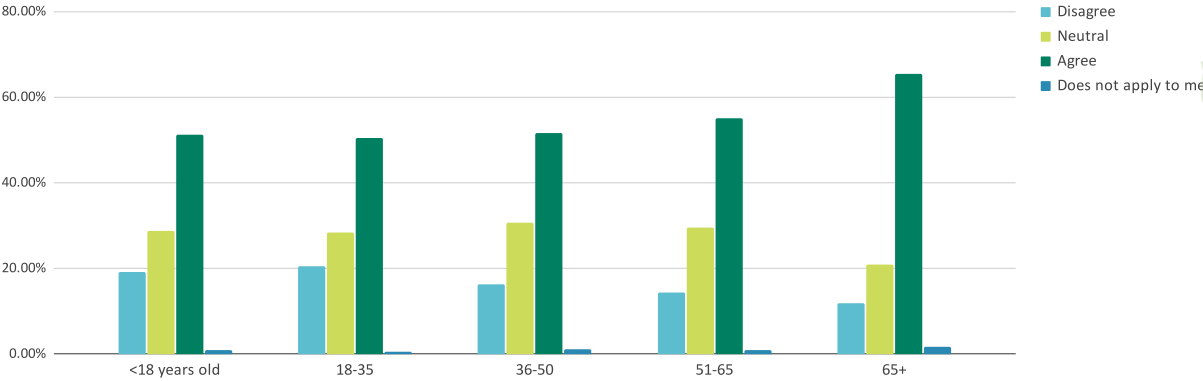


I have enough space and equipment to cook food, including oven, stovetop, counters, pots, pans and other tools

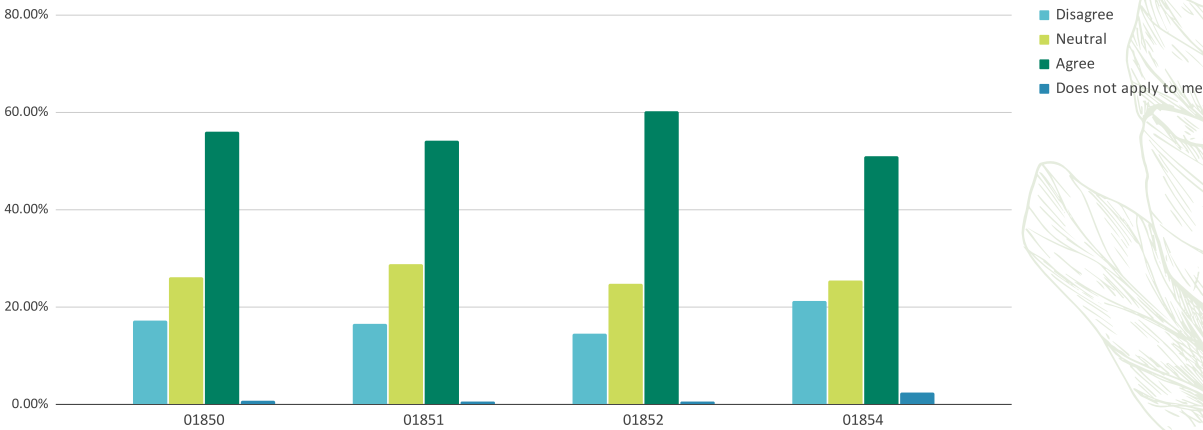


Question 7i: I have enough time to cook food for myself and/or my family

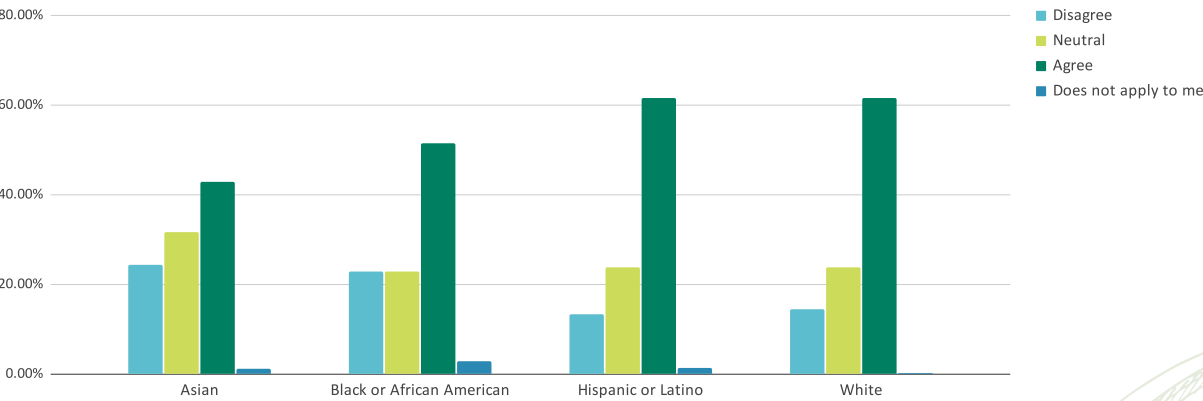
I have enough time to cook food for myself and/or my family



I have enough time to cook food for myself and/or my family

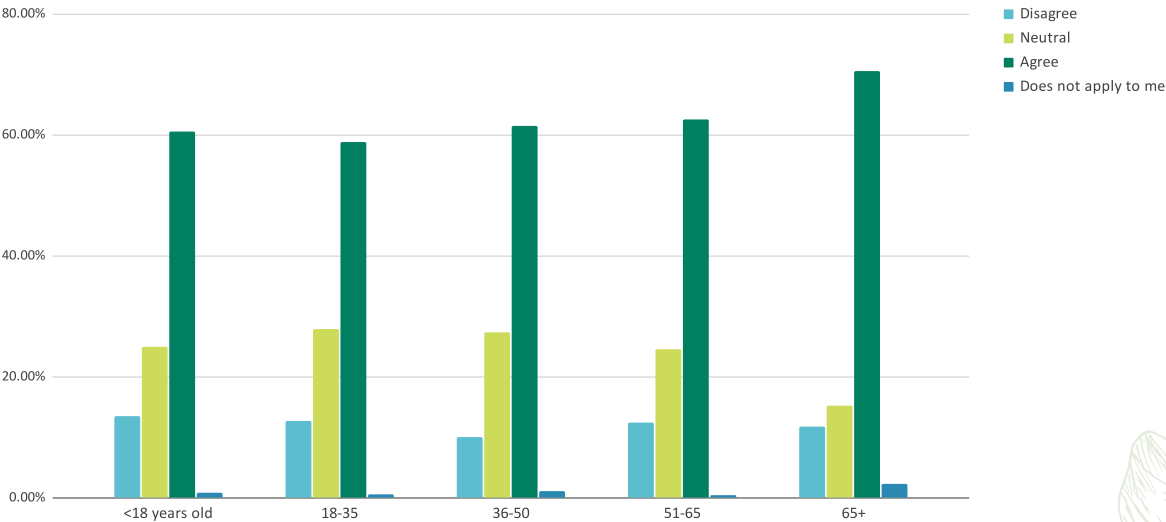


I have enough time to cook food for myself and/or my family

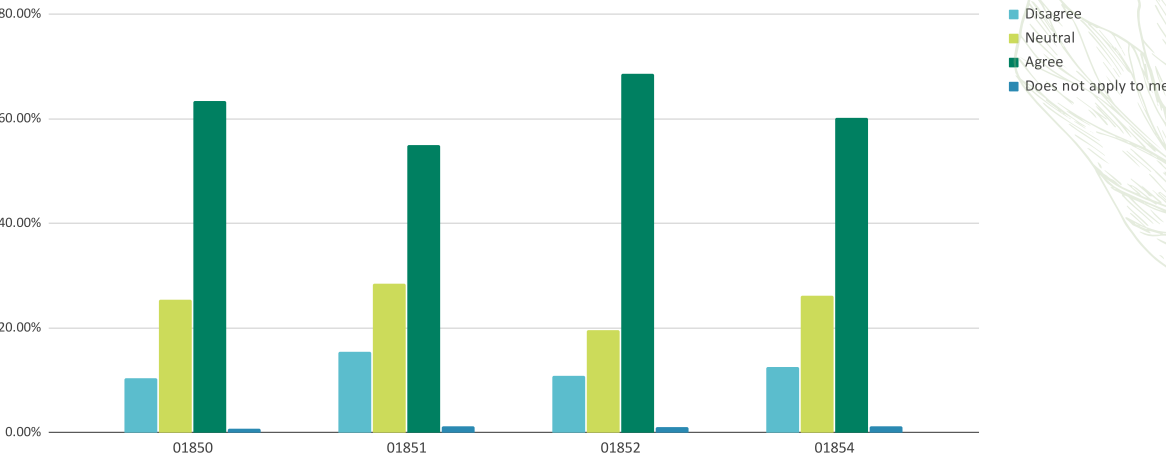


Question 7j: I have enough time to get enough food for myself and/or my family

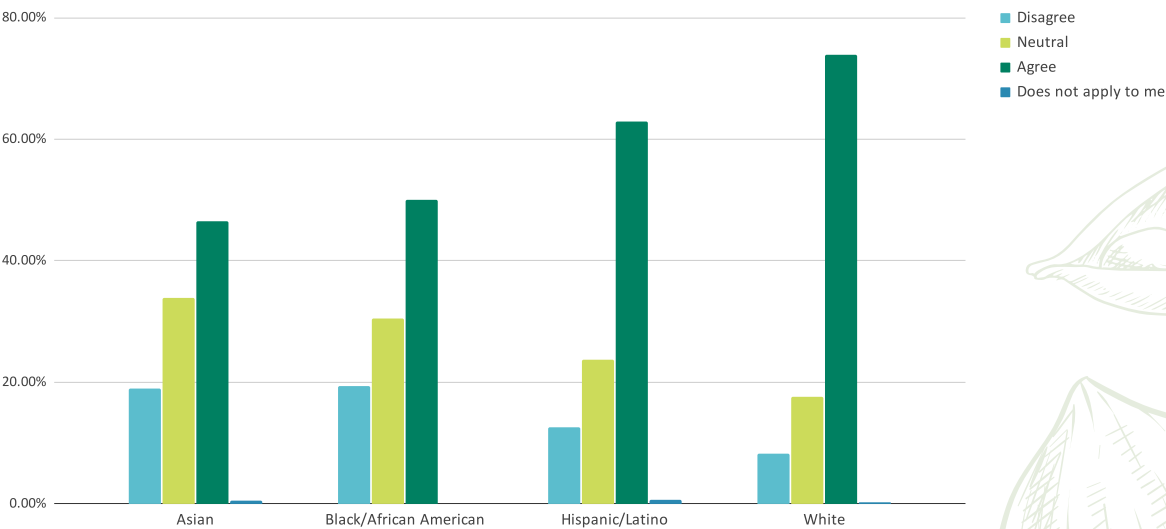
I have enough time to get enough food for myself and/or my family



I have enough time to get enough food for myself and/or my family



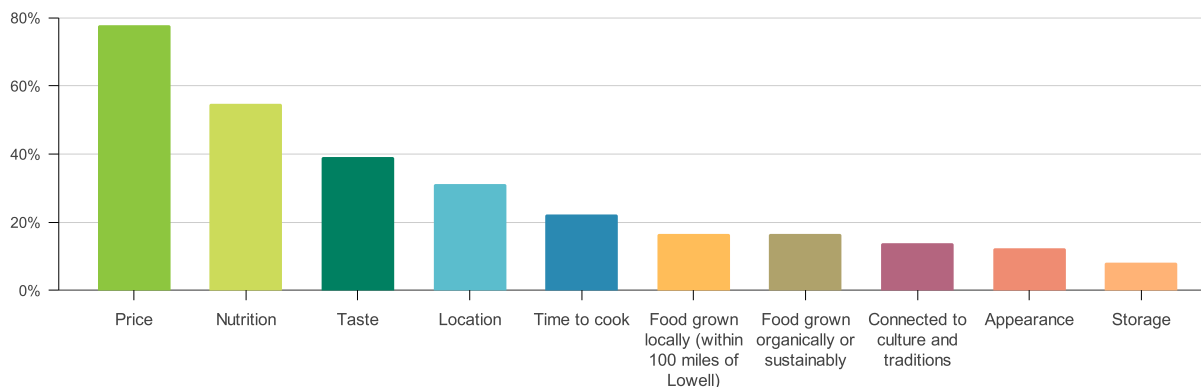
I have enough time to get enough food for myself and/or my family



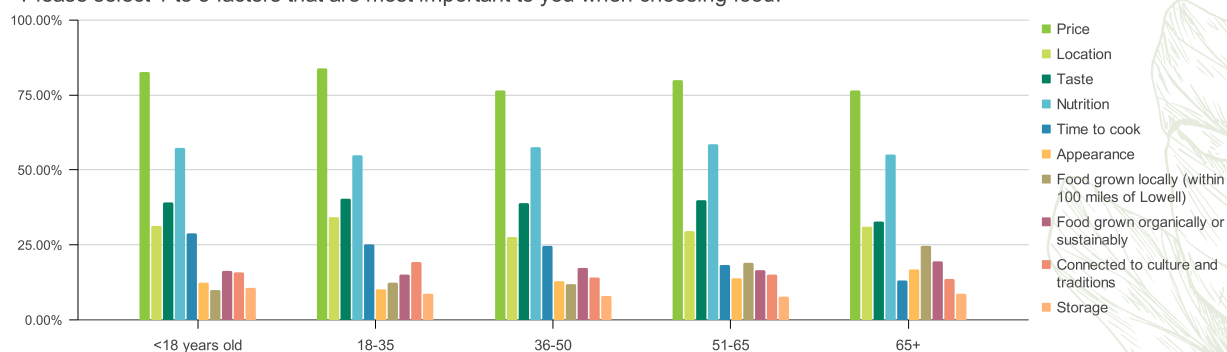


## Question 8: Please select 1 to 3 factors that are most important to you when choosing food

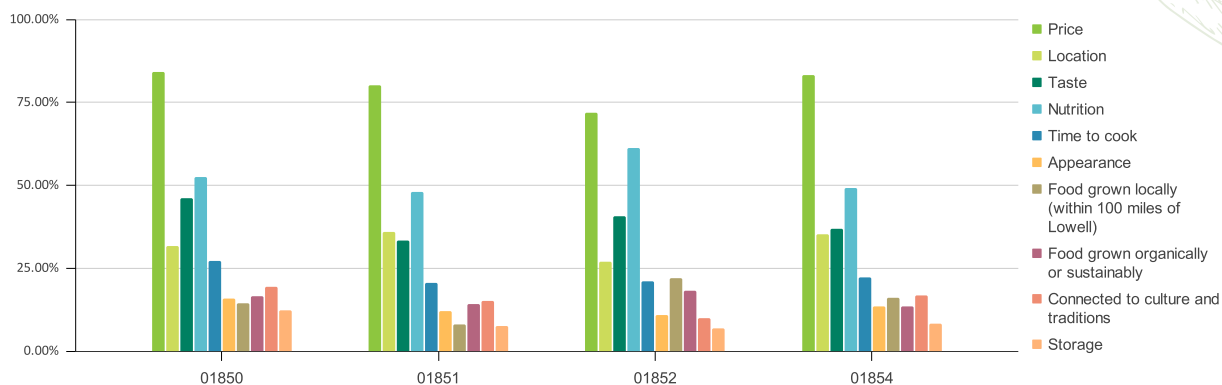
Please select 1 to 3 factors that are most important to you when choosing food.



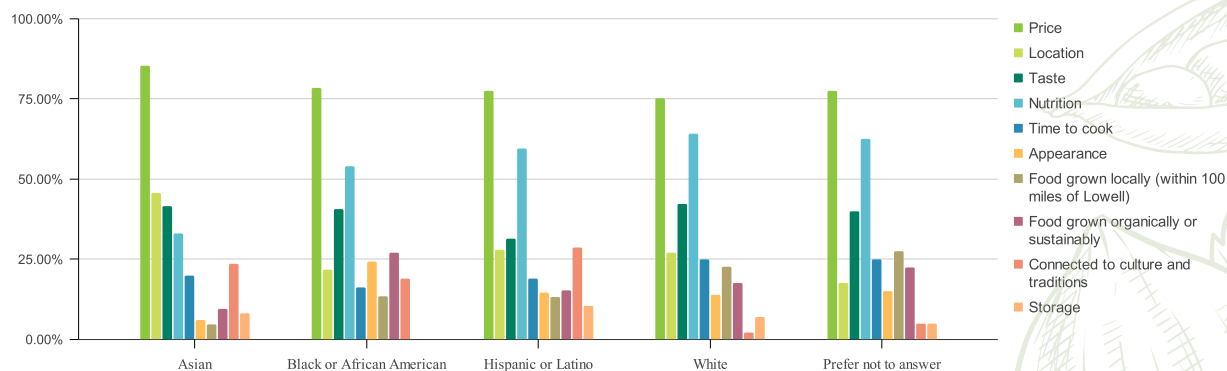
Please select 1 to 3 factors that are most important to you when choosing food.



Please select 1 to 3 factors that are most important to you when choosing food.

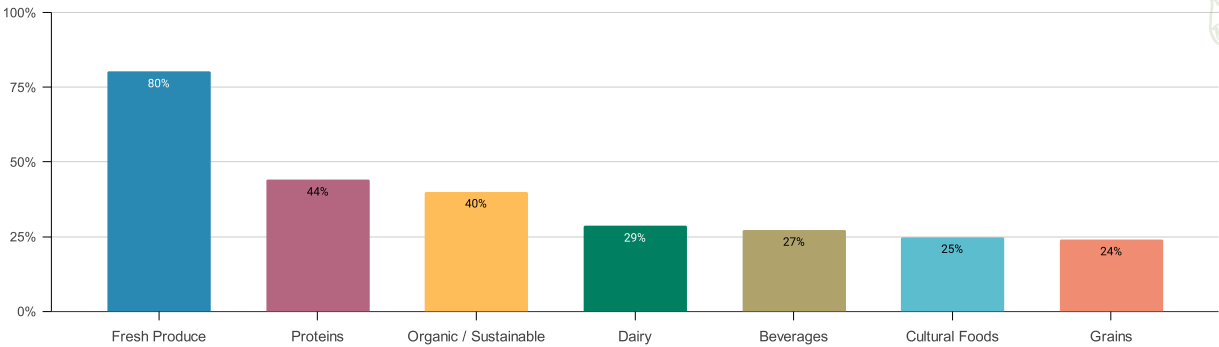


Please select 1 to 3 factors that are most important to you when choosing food.

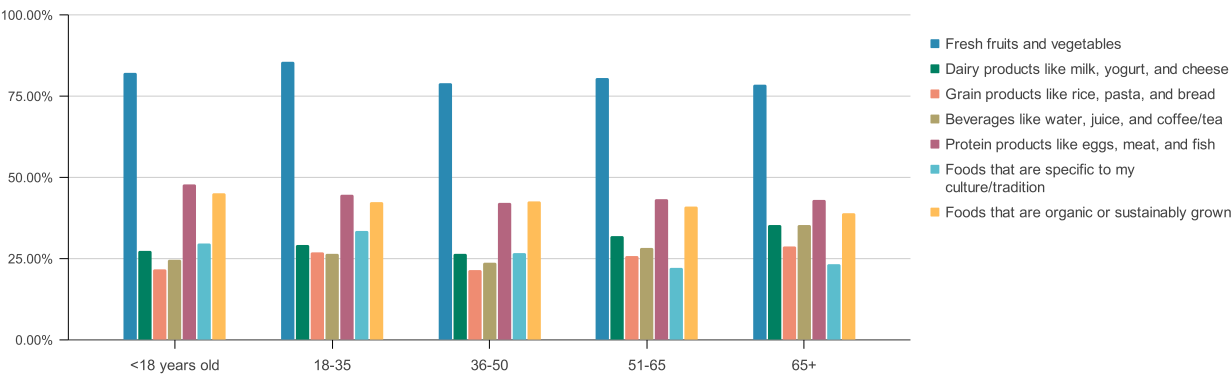


Question 9: Are there any types of foods you would like to eat or have more of in your household? Select all that apply.

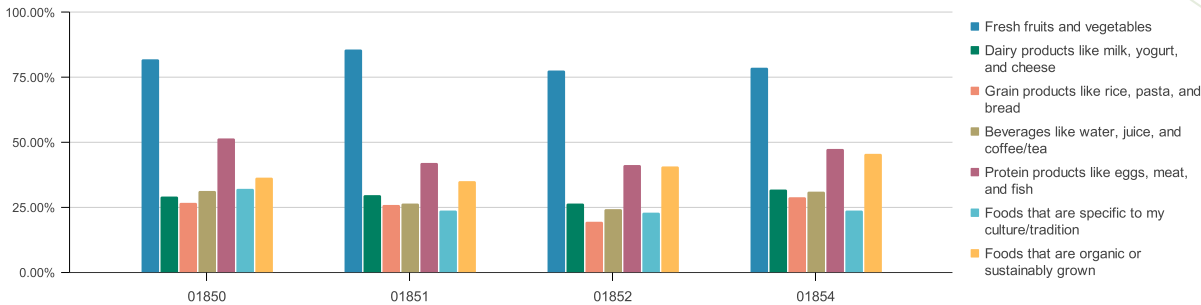
Are there any types of foods you would like to eat or have more of in your household? Select all that apply.



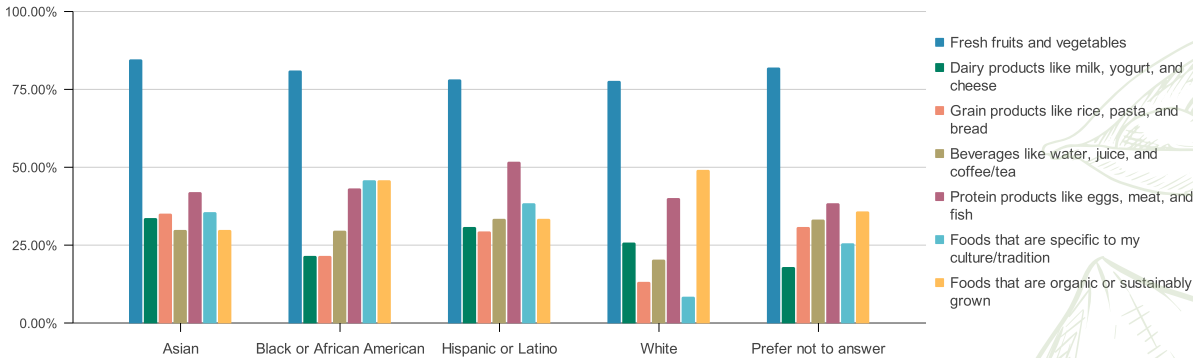
Are there any types of foods you would like to eat or have more of in your household? Select all that apply.



Are there any types of foods you would like to eat or have more of in your household? Select all that apply.

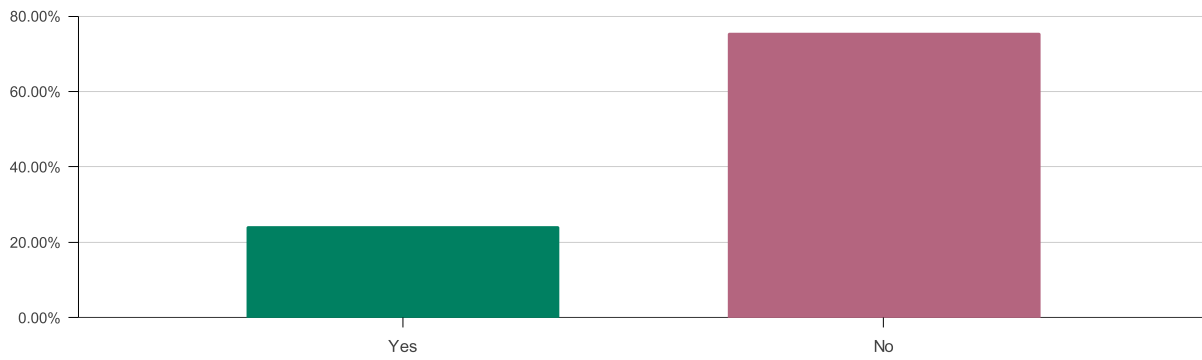


Are there any types of foods you would like to eat or have more of in your household? Select all that apply.

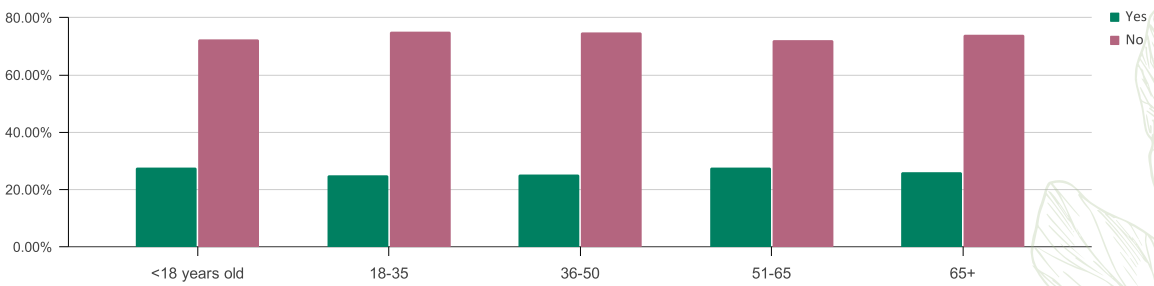


## Question 10: Do you grow your own food?

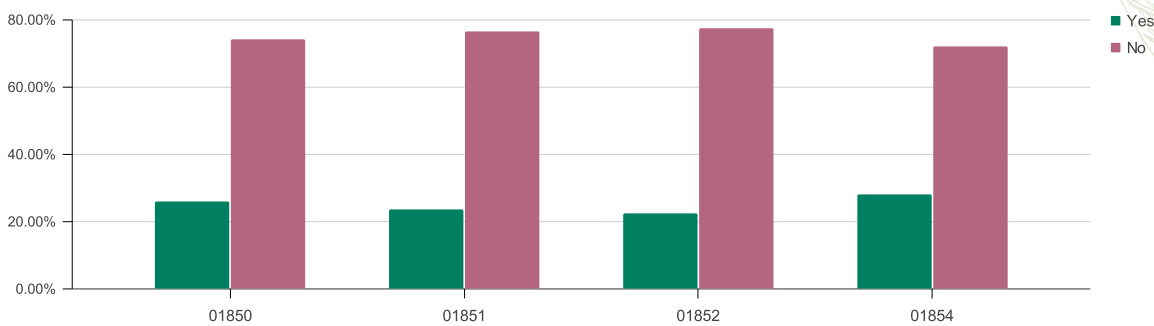
Do you grow your own food?



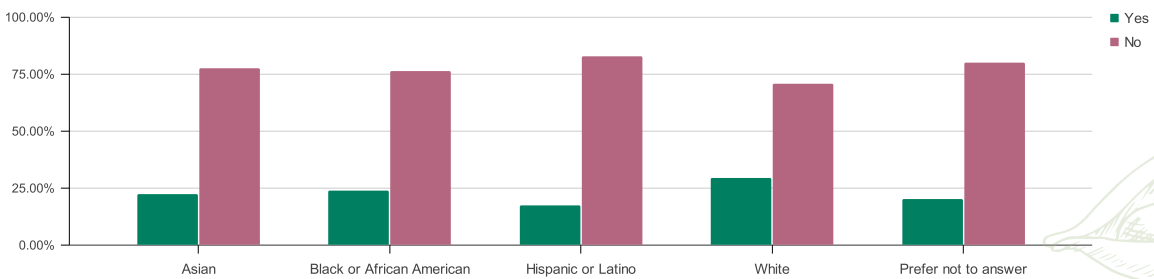
Do you grow your own food?



Do you grow your own food?

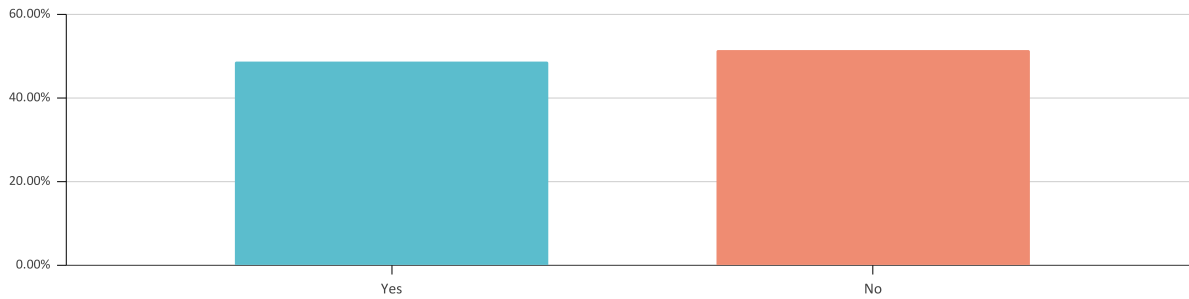


Do you grow your own food?

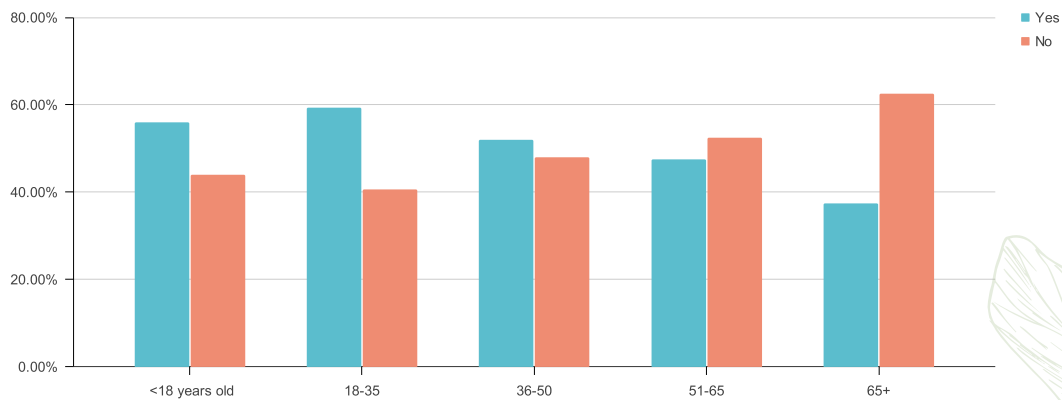


## Question 11: If you answered “no” to question #10, would you be interested in learning how to grow your own food?

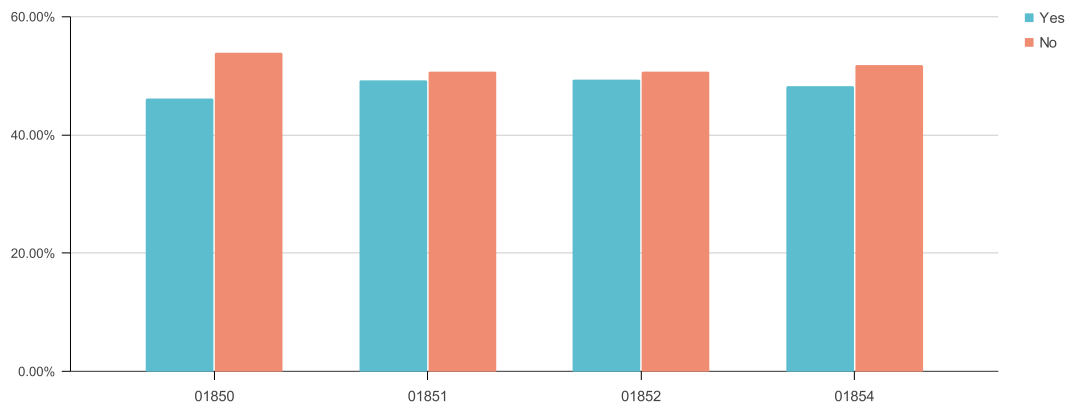
If you answered “no” to the previous question, would you be interested in learning how to grow your own food?



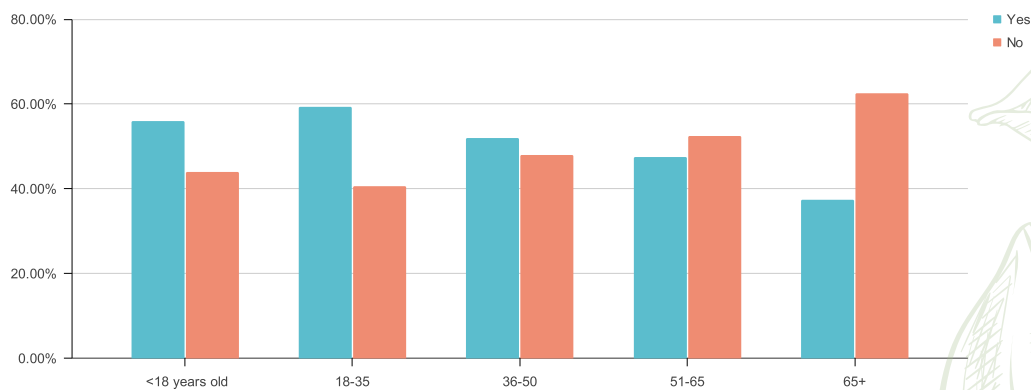
If you answered “no” to the previous question, would you be interested in learning how to grow your own food?



If you answered “no” to the previous question, would you be interested in learning how to grow your own food?

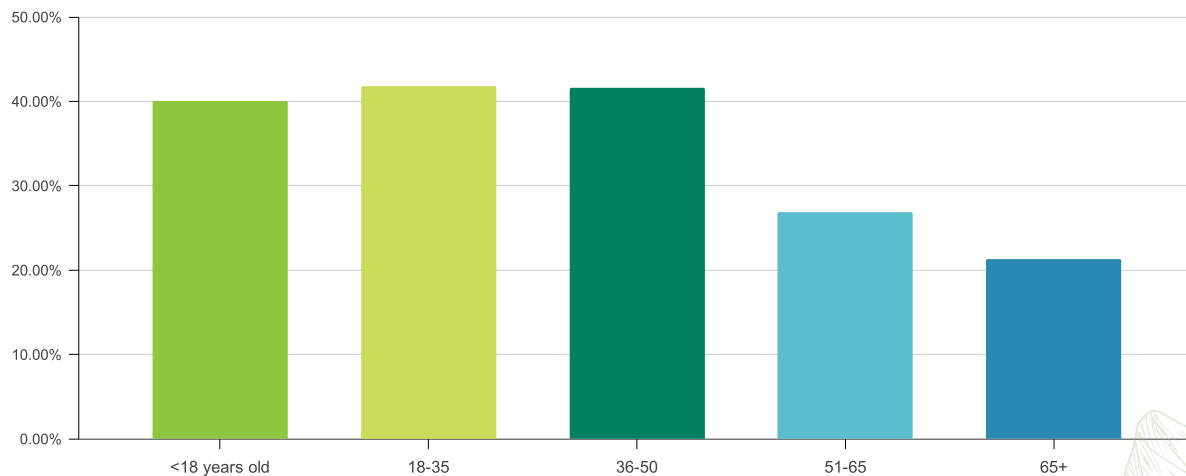


If you answered “no” to the previous question, would you be interested in learning how to grow your own food?

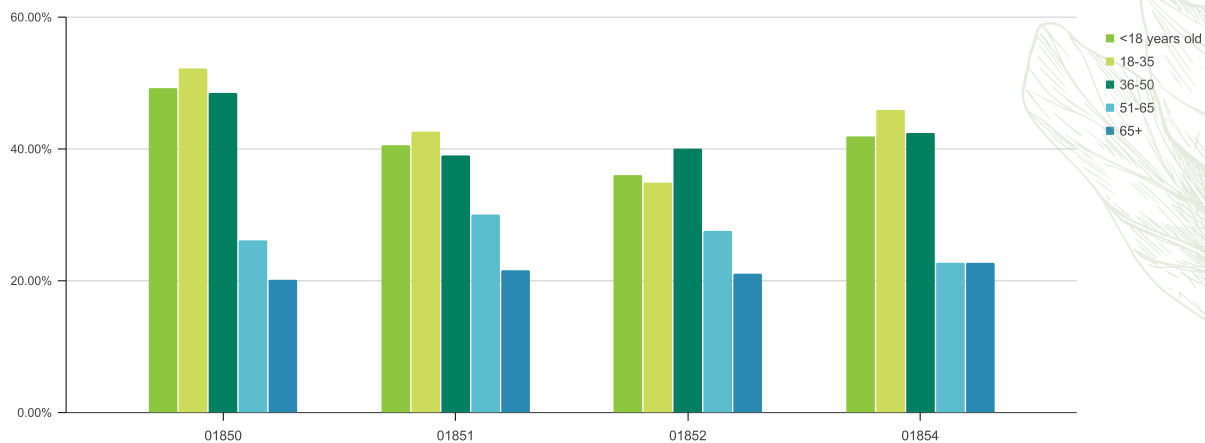


## Question 12: Are there people from any of these age groups currently living in your household?

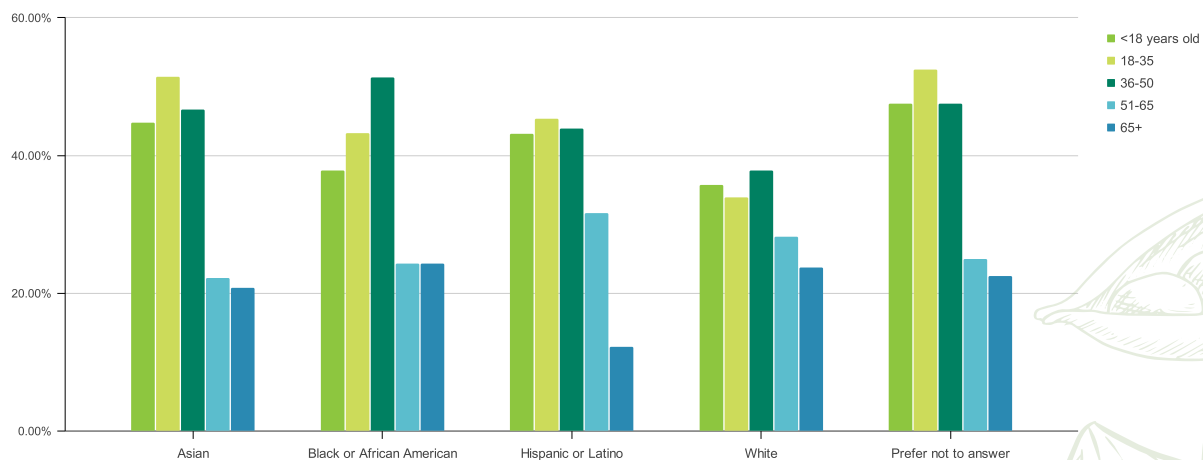
Are there people from any of these age groups currently living in your household? Please include yourself and select all that apply.



Are there people from any of these age groups currently living in your household? Please include yourself and select all that apply.



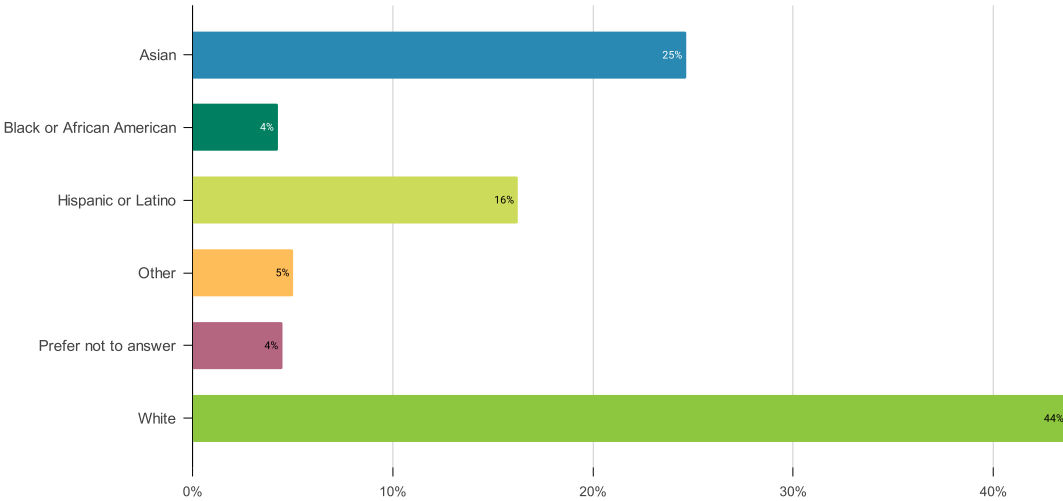
Are there people from any of these age groups currently living in your household? Please include yourself and select all that apply.



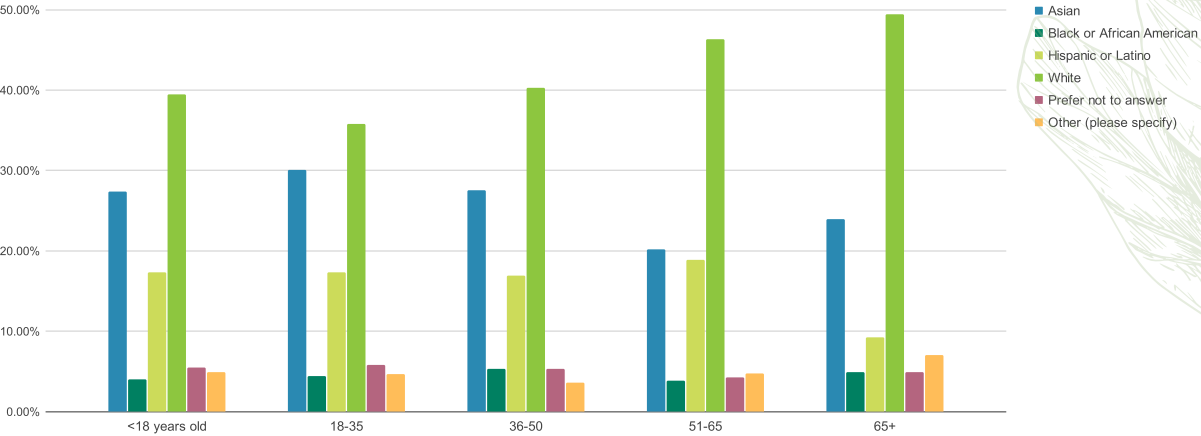


Question 14: What is your race/ethnicity?

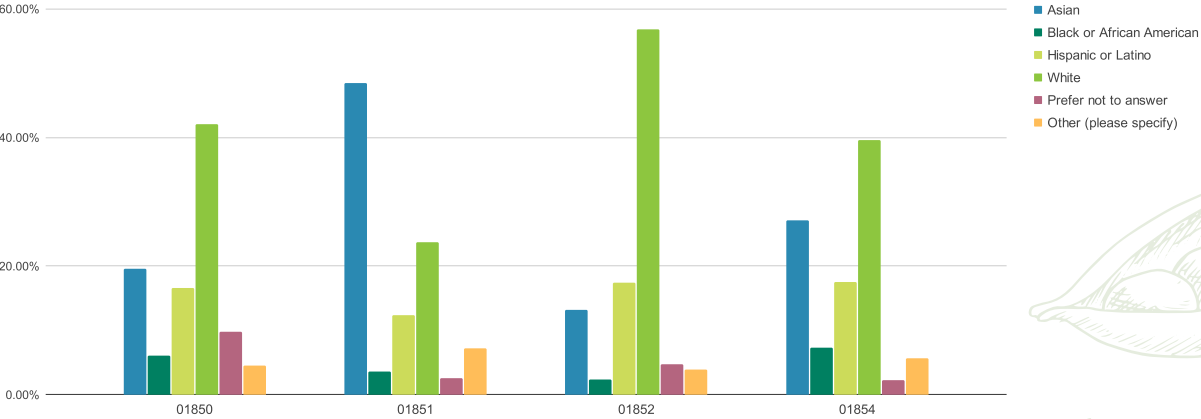
What is your race/ethnicity?



What is your race/ethnicity?



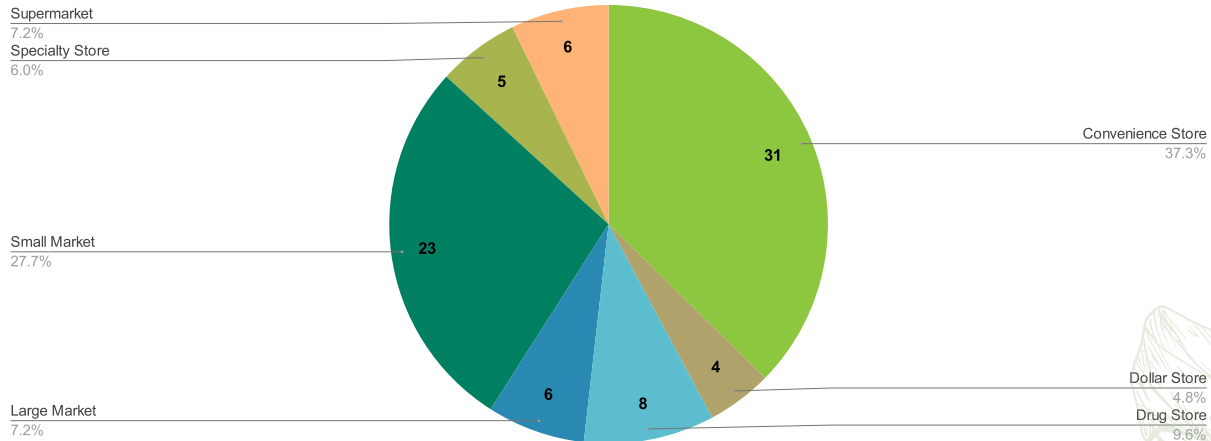
What is your race/ethnicity?



# Appendix B: Retailer Survey

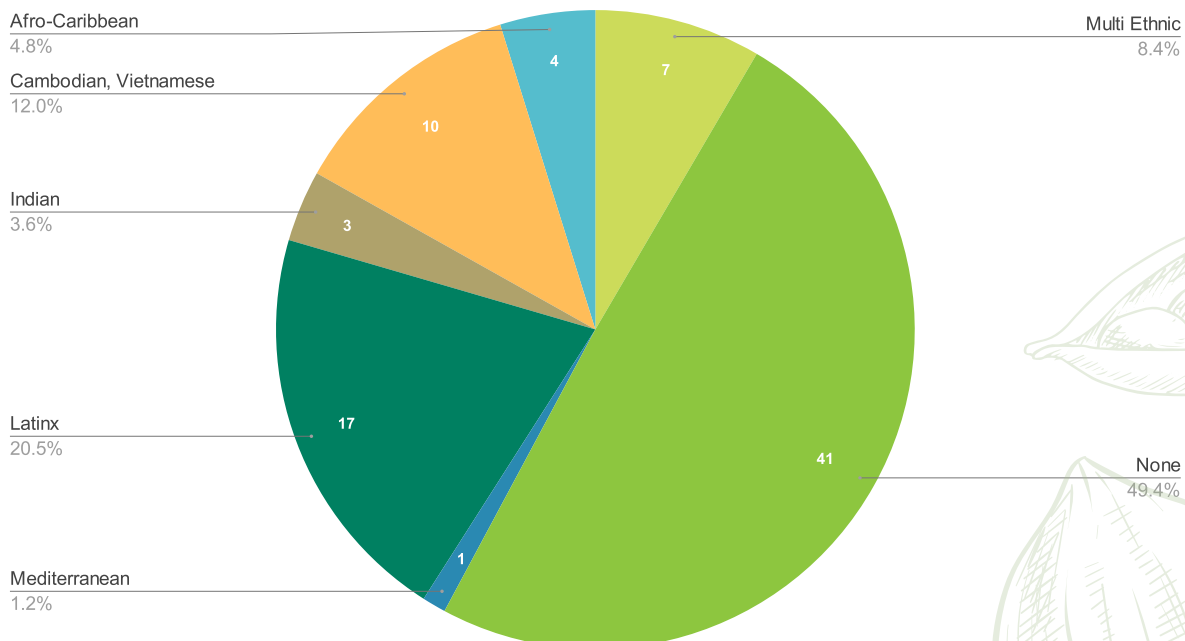
## Raw Data

### Types of Food Retail



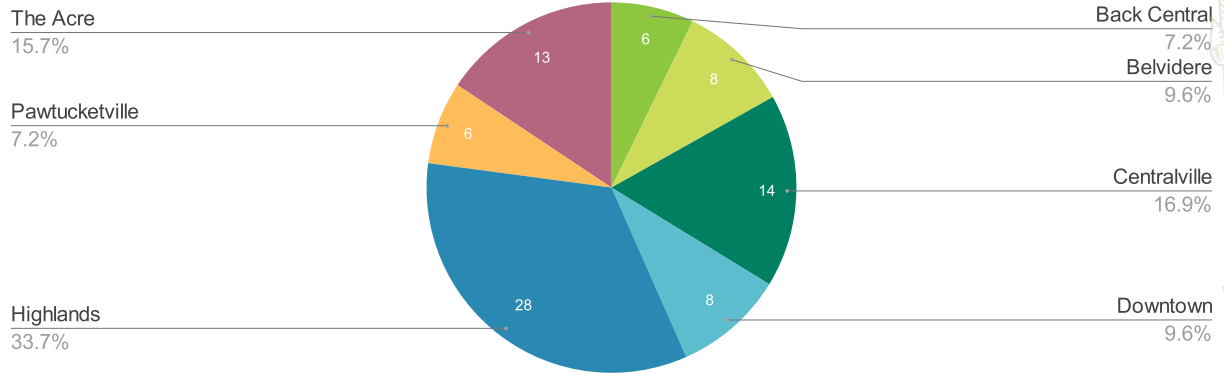
Small Market	Smaller selection but may have some meats and produce available
Convenience Store	Cumberland Farms, 7-eleven, Gas Station stores
Large Market	Good quantity of produce/fresh meats
Drug Store	CVS, Walgreens, Riteaid, Local Drugstores
Supermarket	Market Basket, Hannafords, Stop & Shop etc.
Specialty Store	Bakery, Coffee shop, Butcher, seafood market, usually focuses on a specific product
Dollar Store	Dollar General, Dollar Tree, Family Dollar

### Food Retailers Offering Cultural Foods

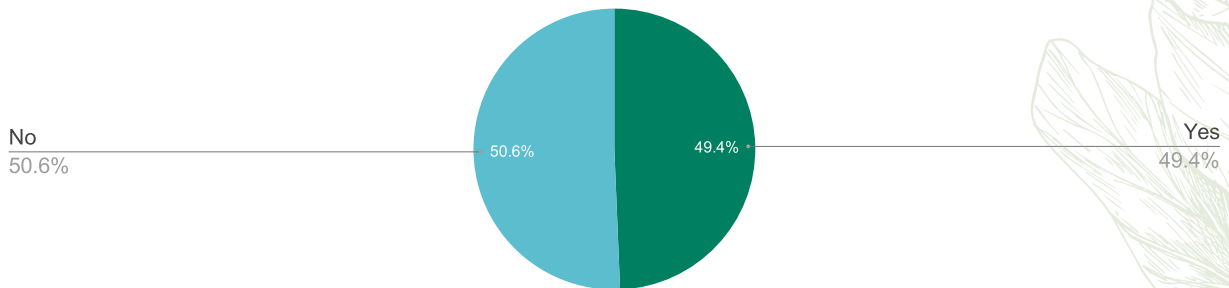


## Raw Data

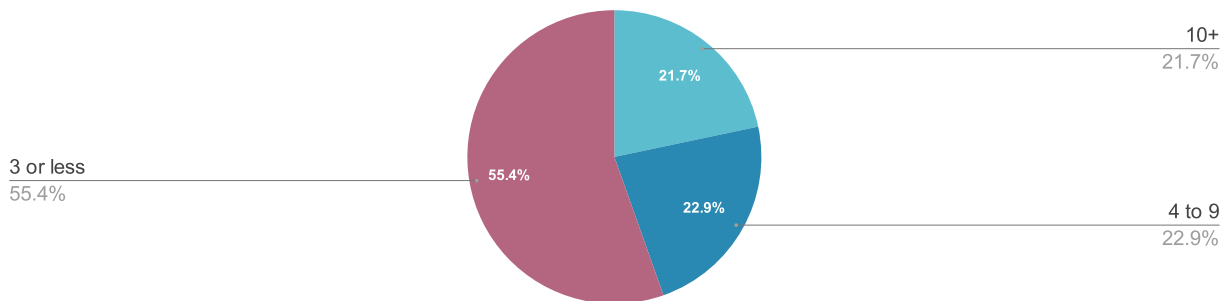
### 83 Food Retailers Surveyed



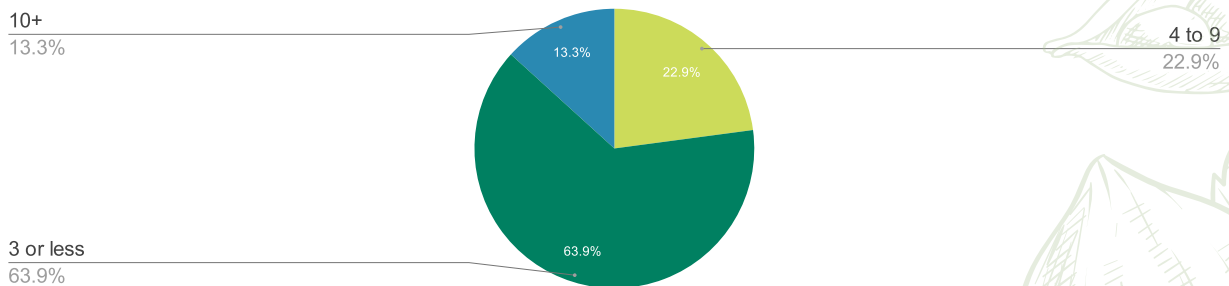
### Count of Meats available?



### How many varieties of vegetables were present?

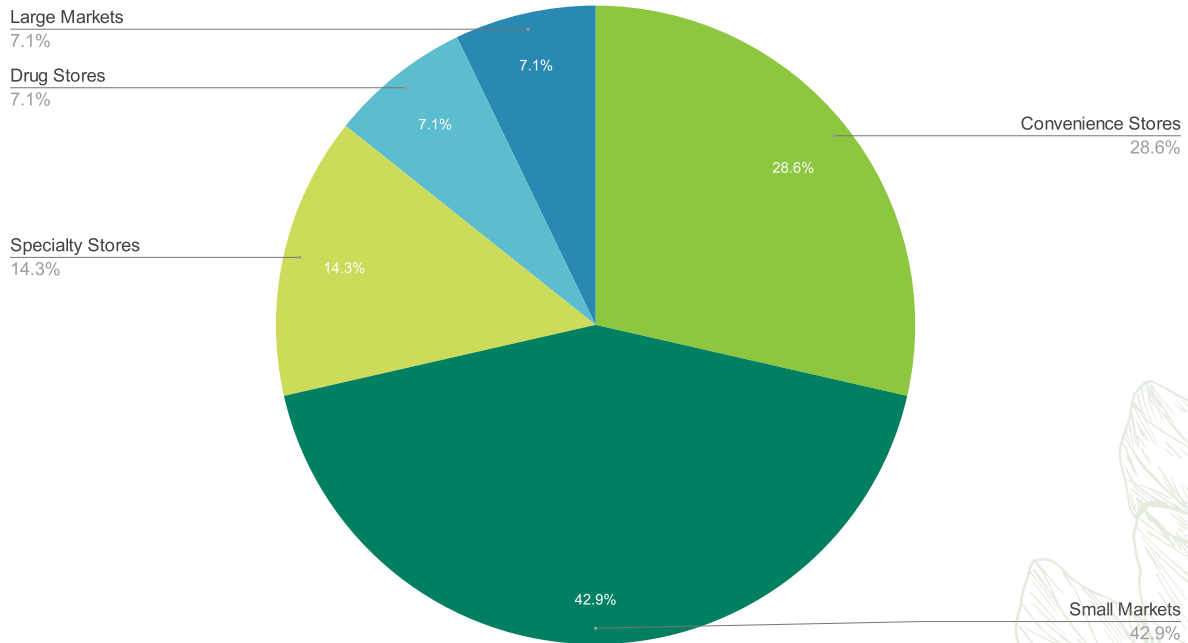


### How many varieties of fruit were present?

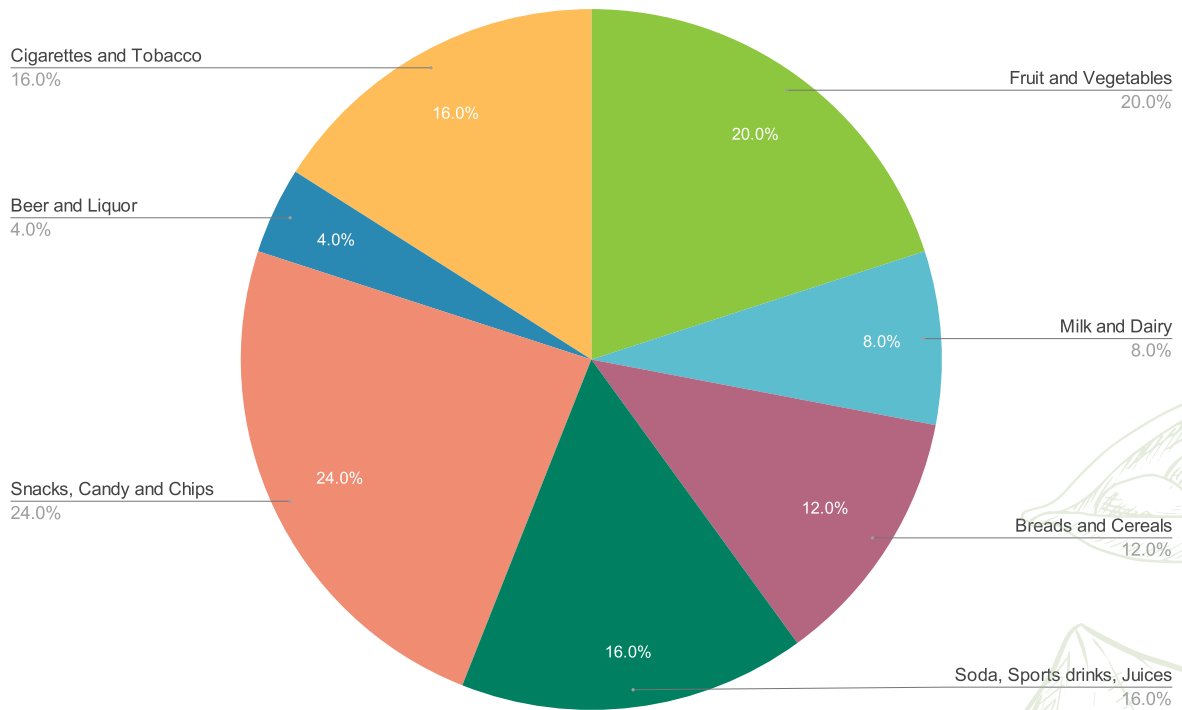


## Centralville

Retail Types - Centralville

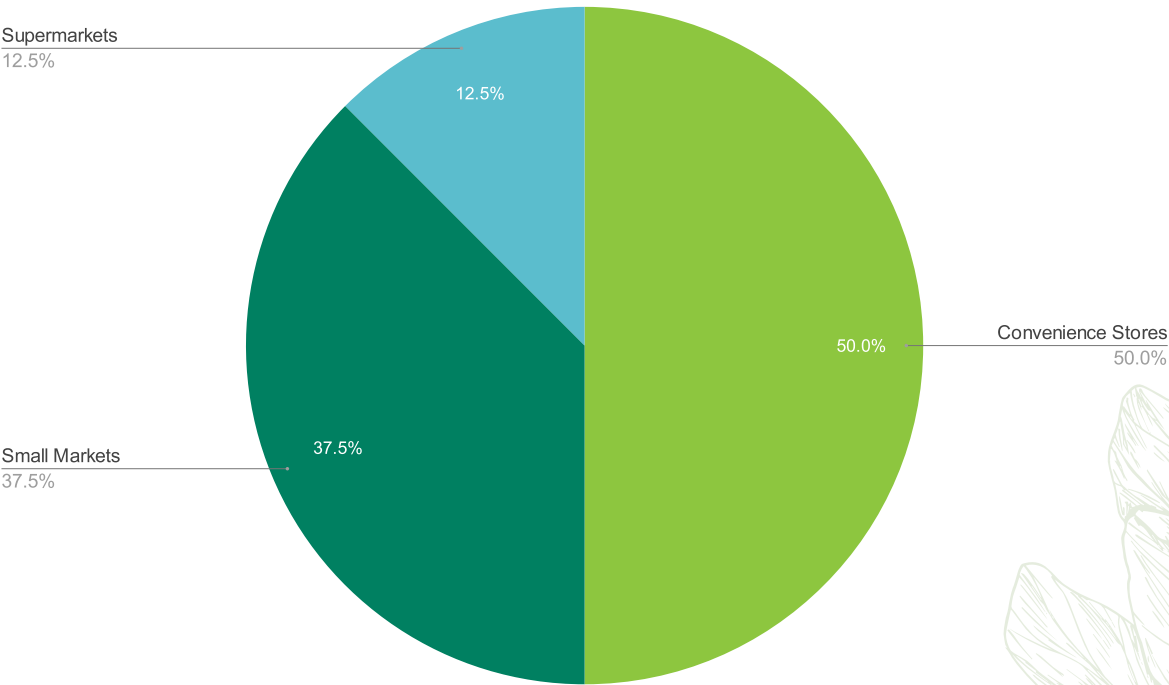


Most Prominent Products : Centralville

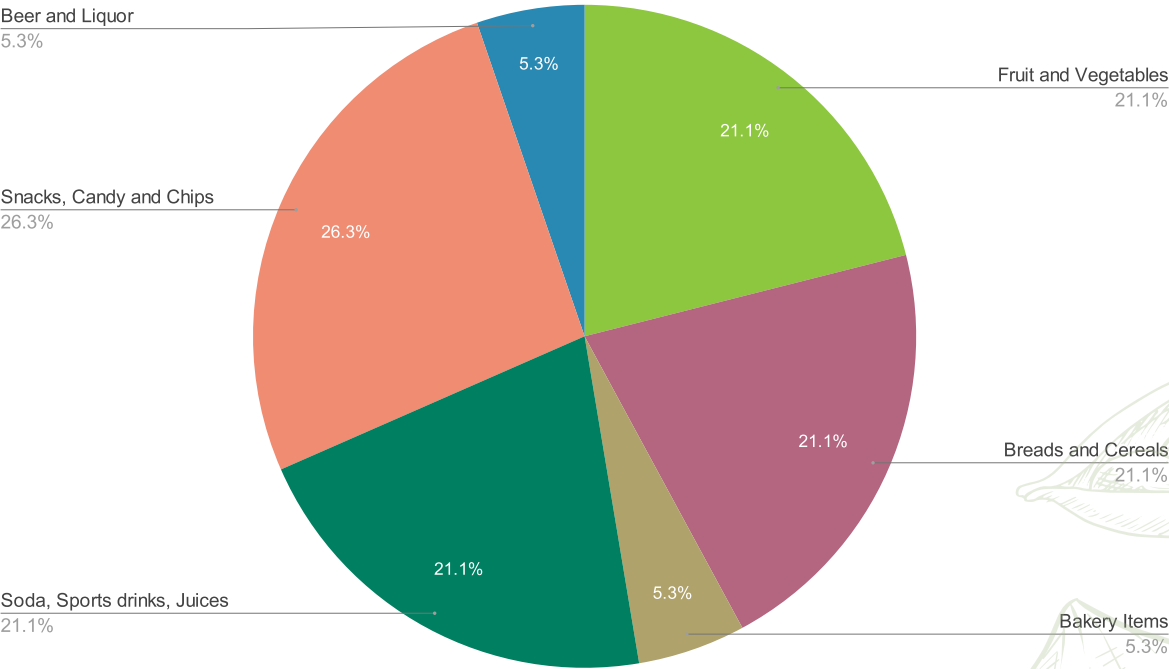


Belvidere

Retail Types - Belvidere



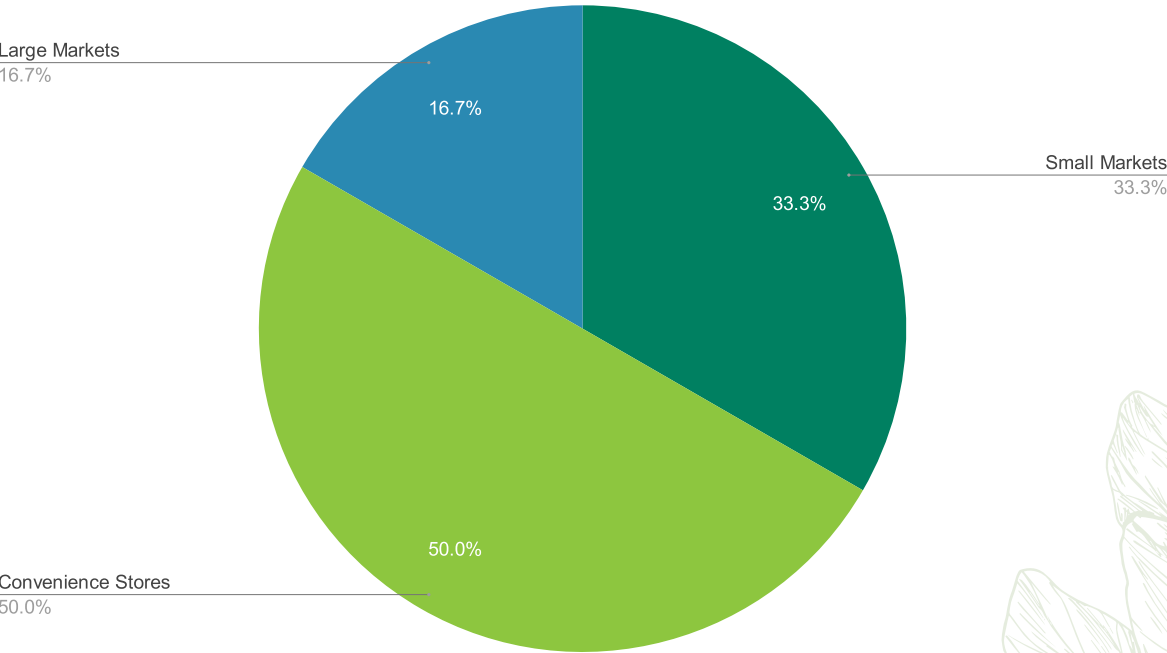
Most Prominent Products: Belvidere



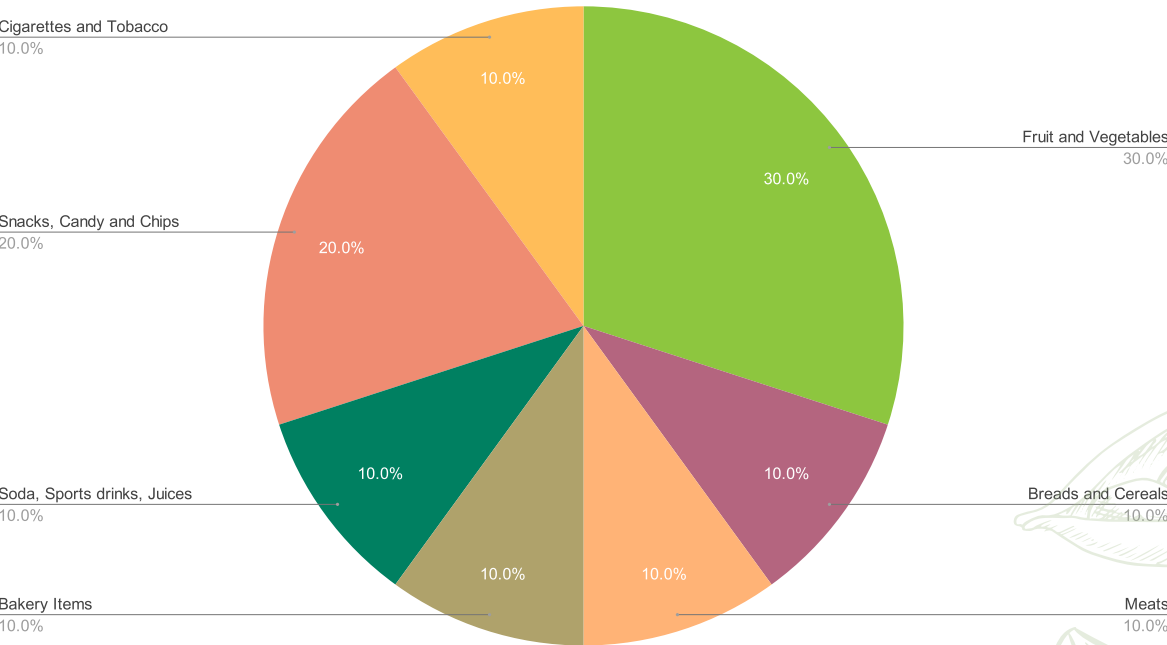


Back Central

Retail Types - Back Central

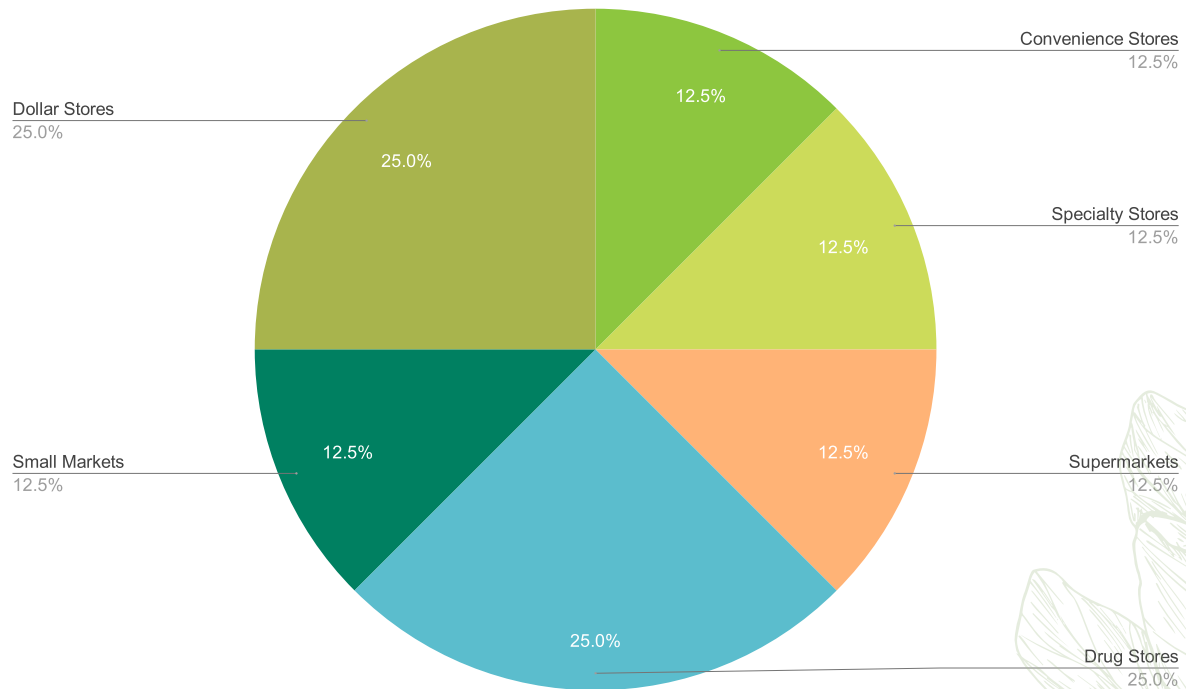


Most Prominent Products : Back Central

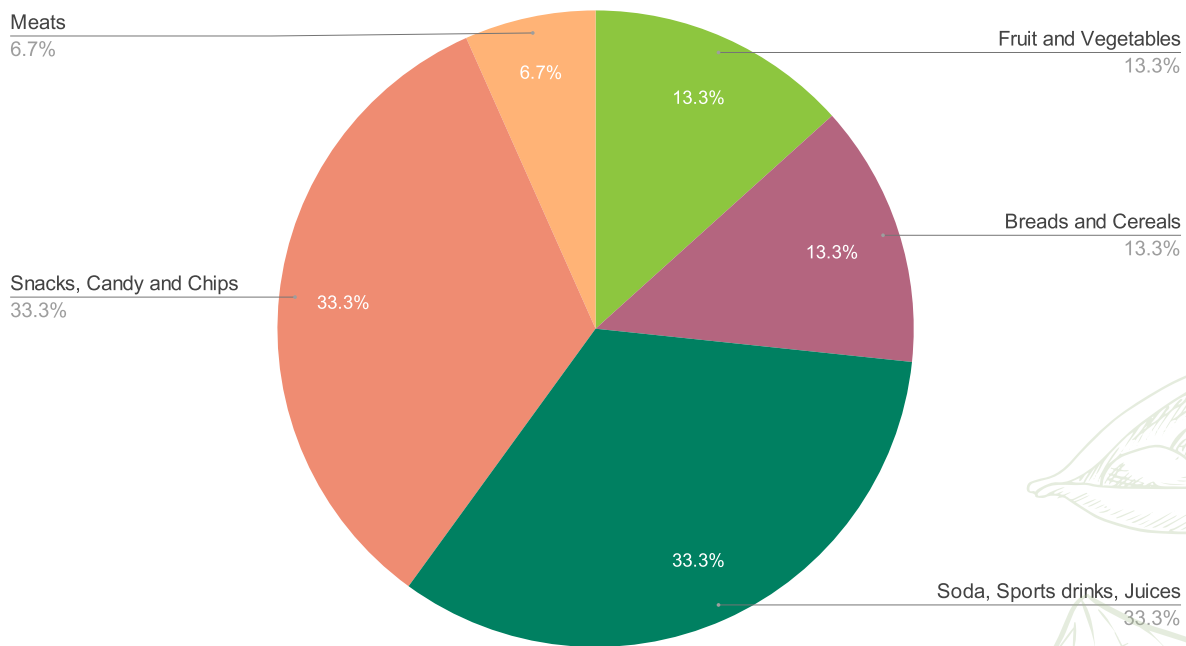


## Downtown

Retail Types - Downtown

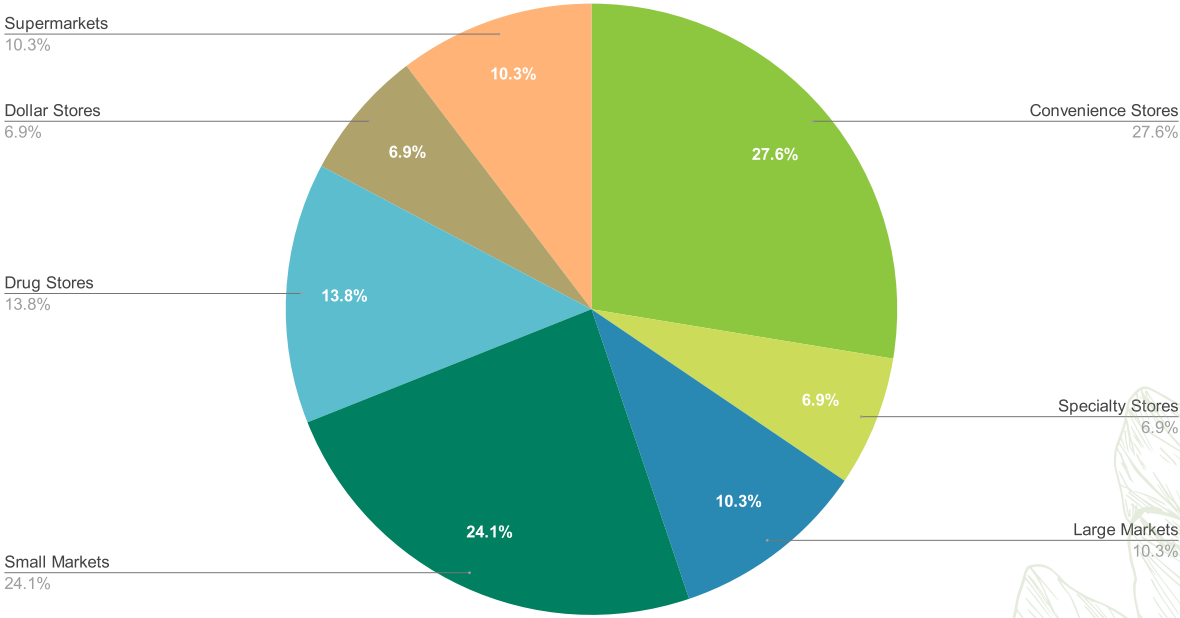


Most Prominent Products : Downtown

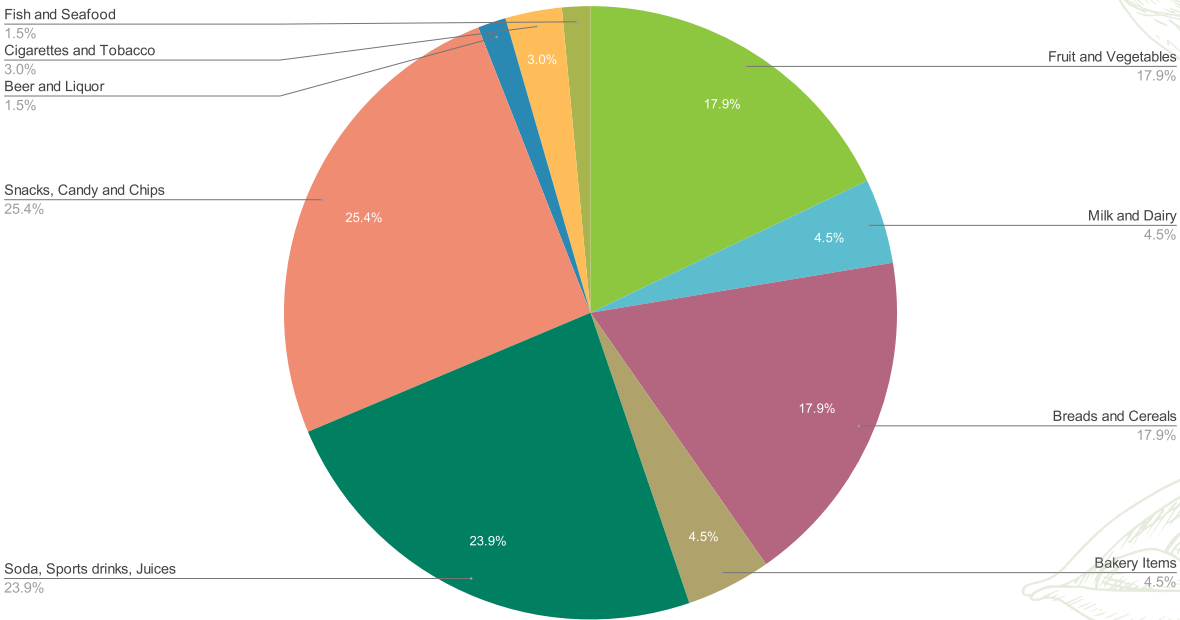


Highlands

Retail Types - Highlands



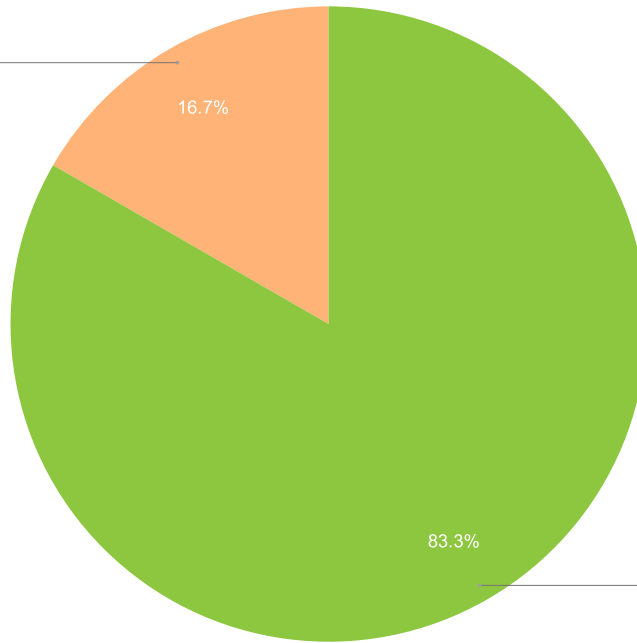
Most Prominent Products: Highlands



## Pawtucketville

### Retail Types - Pawtucketville

Supermarkets  
16.7%

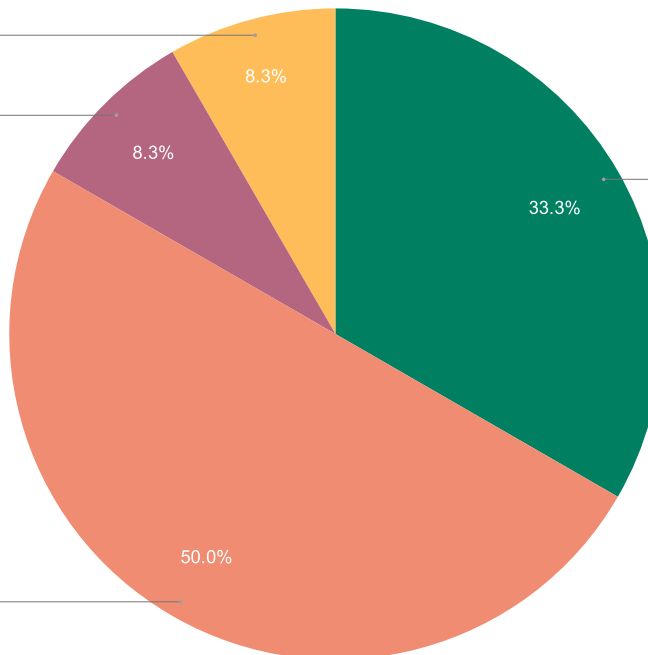


Convenience Stores  
83.3%

### Most Prominent Products: Pawtucketville

Cigarettes and Tobacco  
8.3%

Bread and Cereals  
8.3%

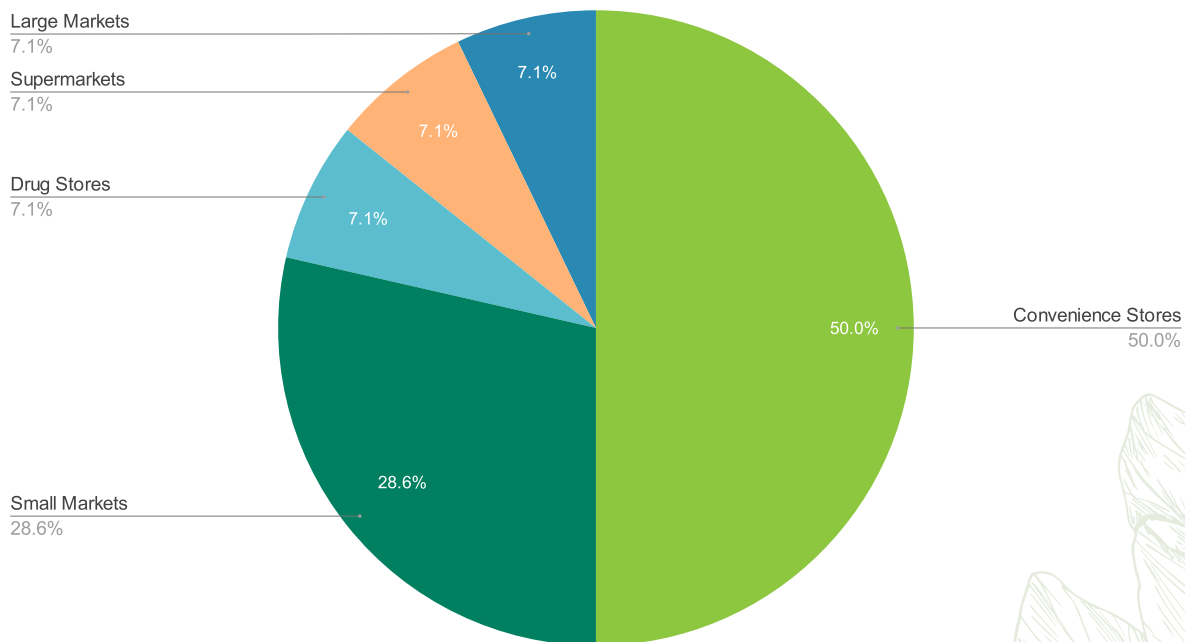


Soda, Sports drinks  
33.3%

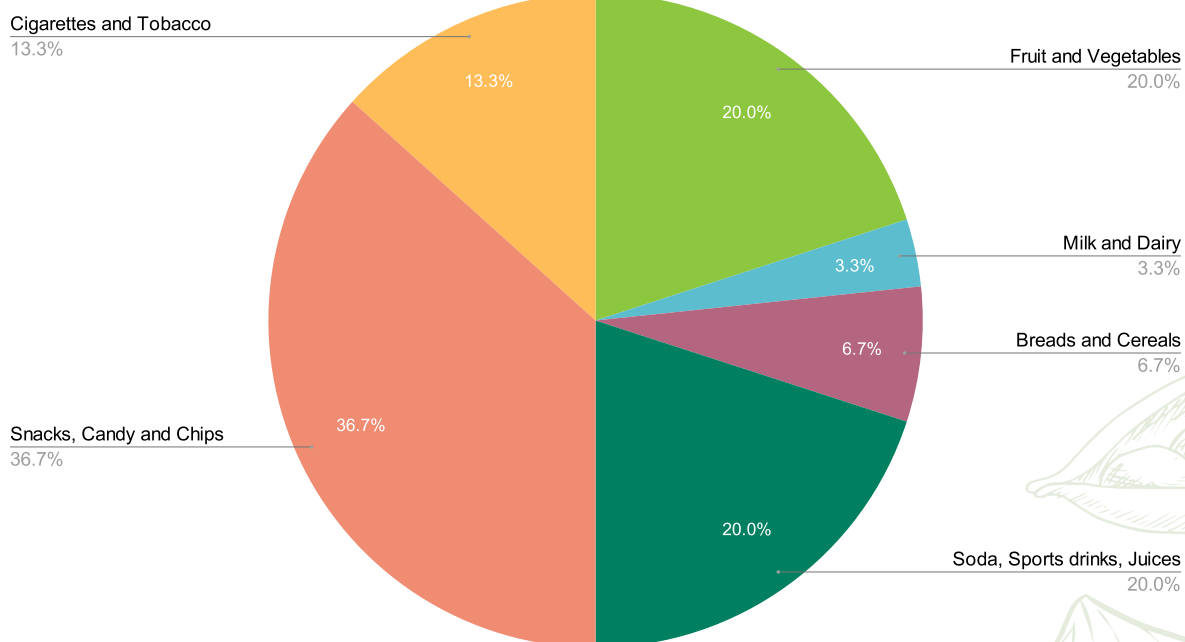
Snacks candy and Chips  
50.0%

## The Acre

### Retail Types - The Acre



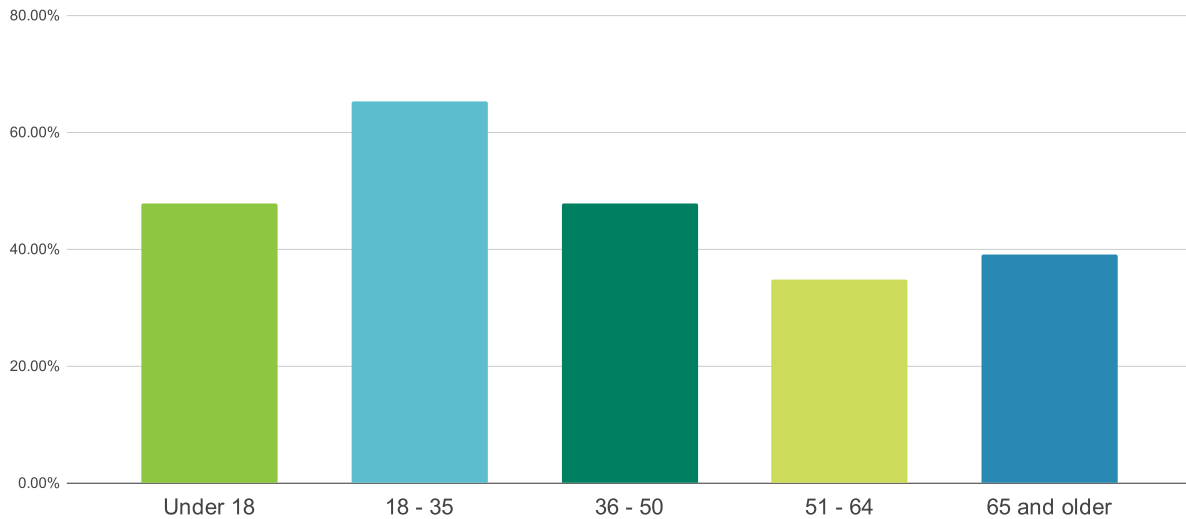
### Most Prominently Displayed Products: The Acre



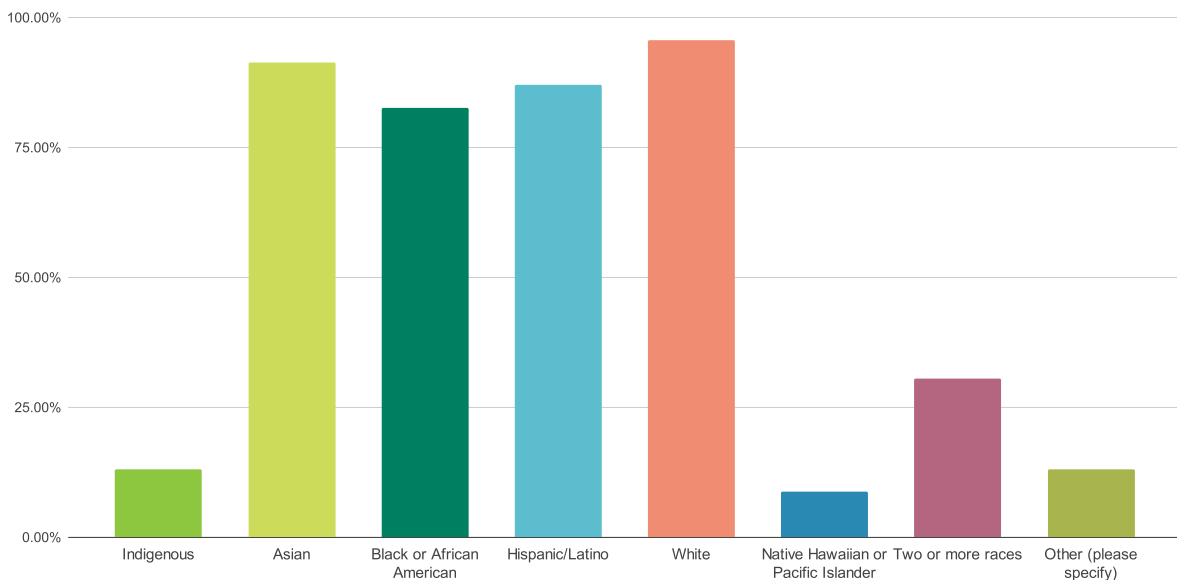


# Appendix C: Emergency Food Provider Survey

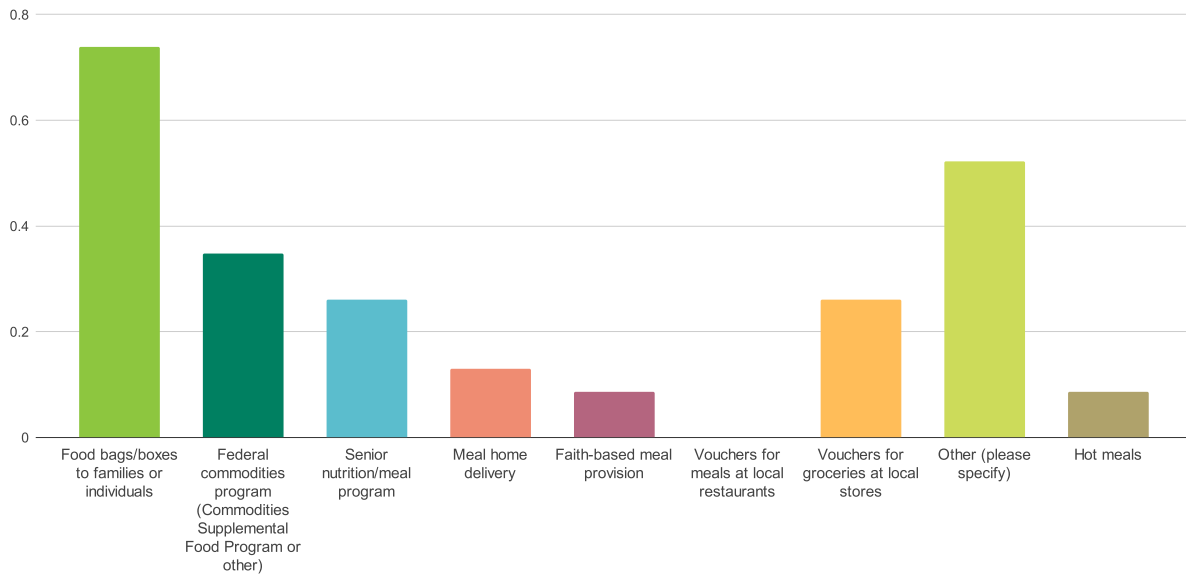
Please select 1 to 3 age groups most frequently served by your organization.



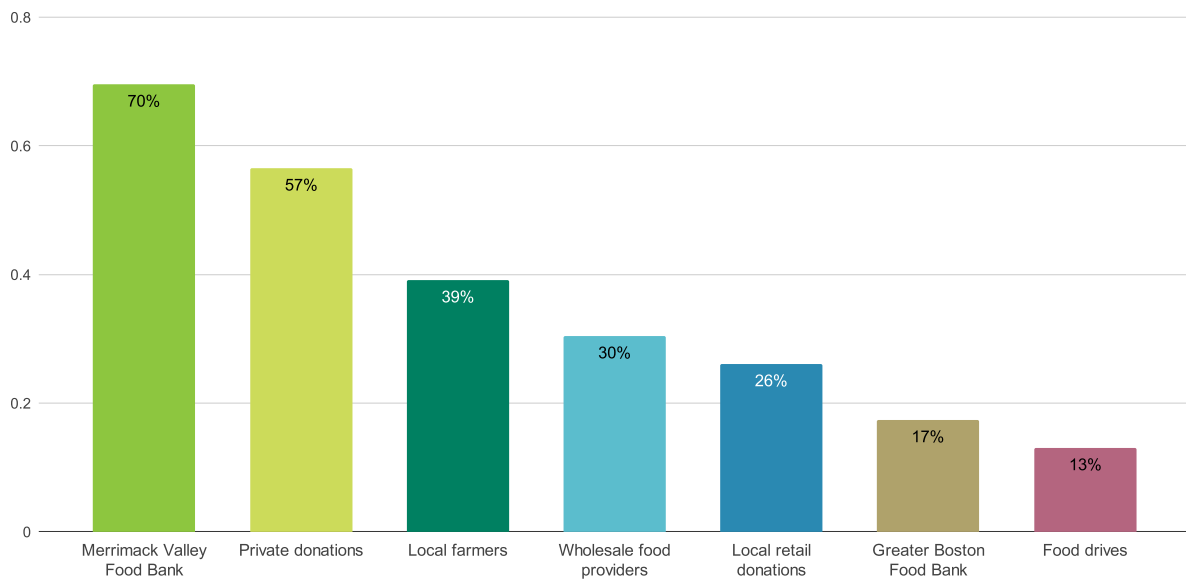
Please select 1 to 5 race/ethnicity categories most frequently served by your organization.



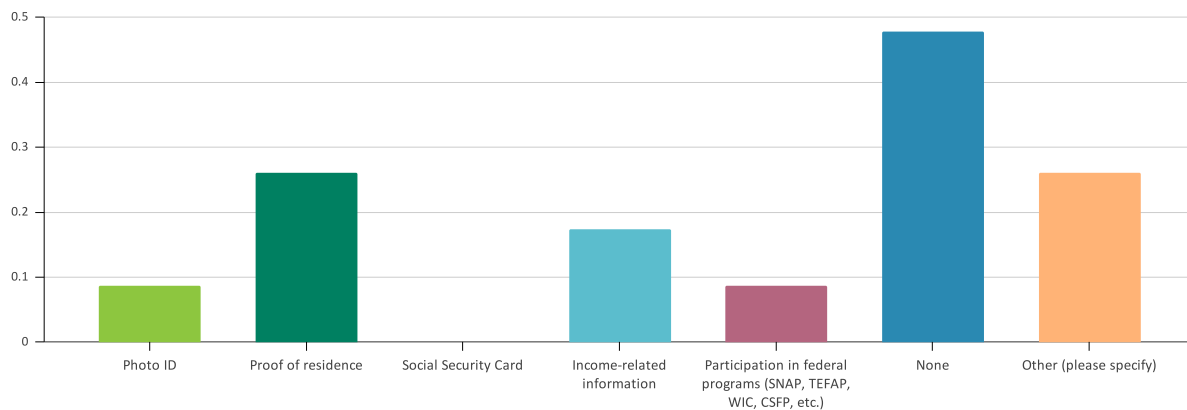
What type of emergency food does your agency provide? Select all that apply.



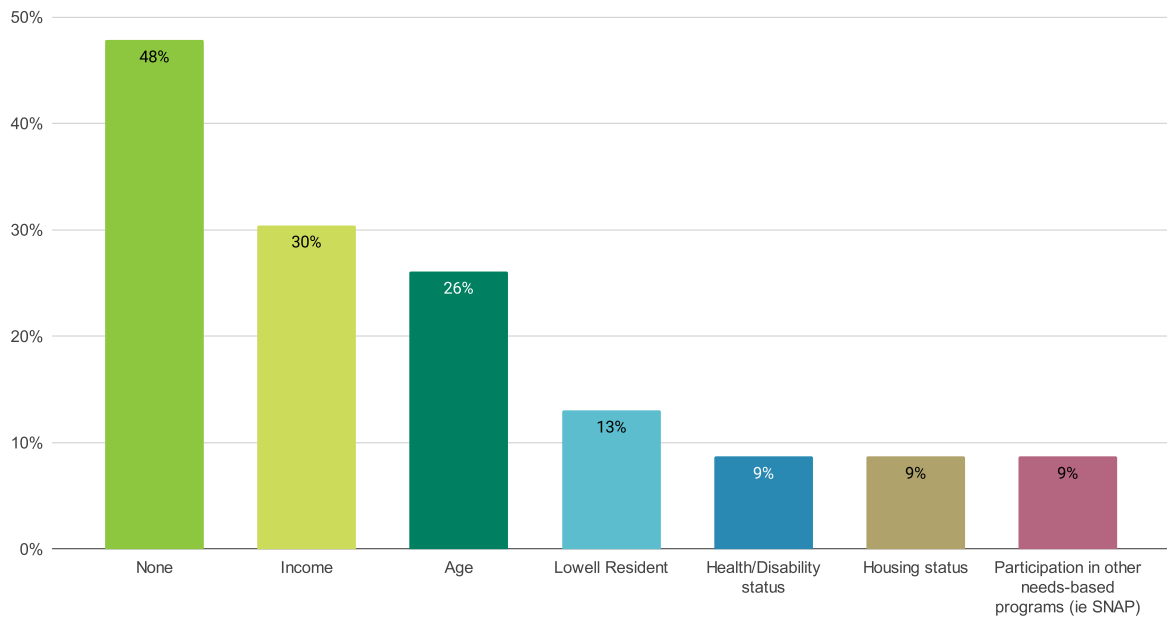
Please select the food providers that serve your agency. Select all that apply.



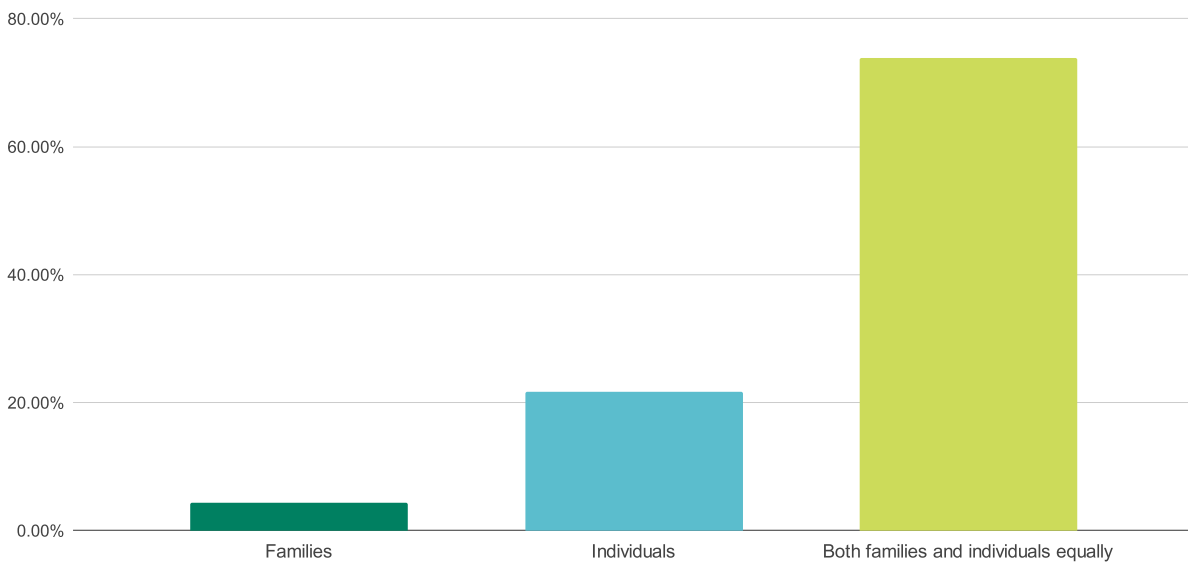
What documentation must your clients provide in order to receive food, if any? Select all that apply.



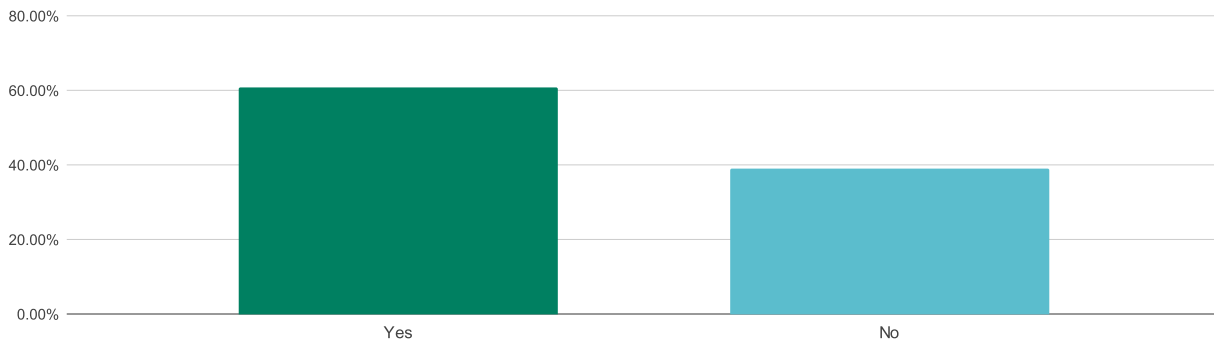
### What requirements and/or qualifications must your clients meet in order to receive food?



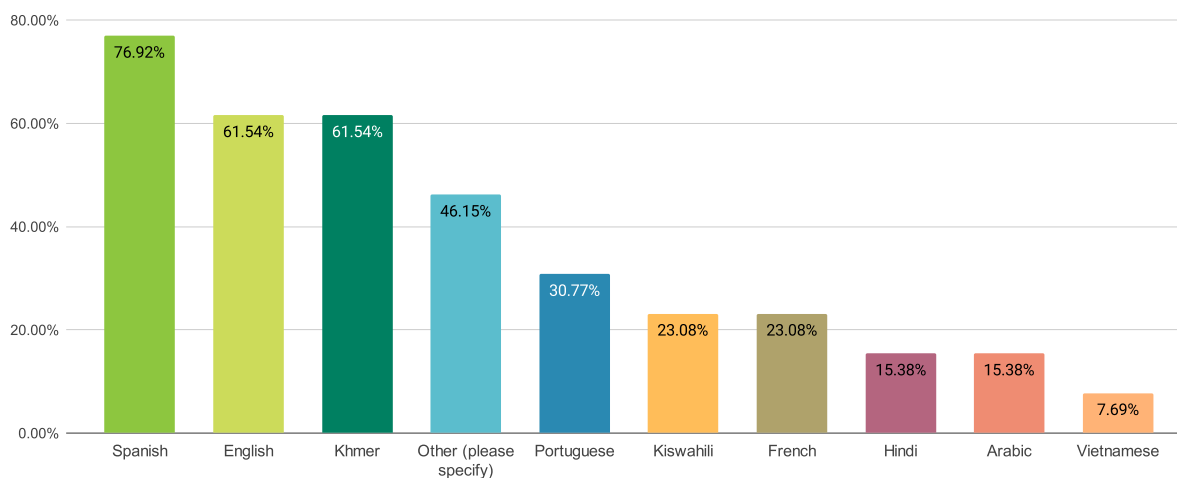
### Does your organization serve mostly families or individuals?



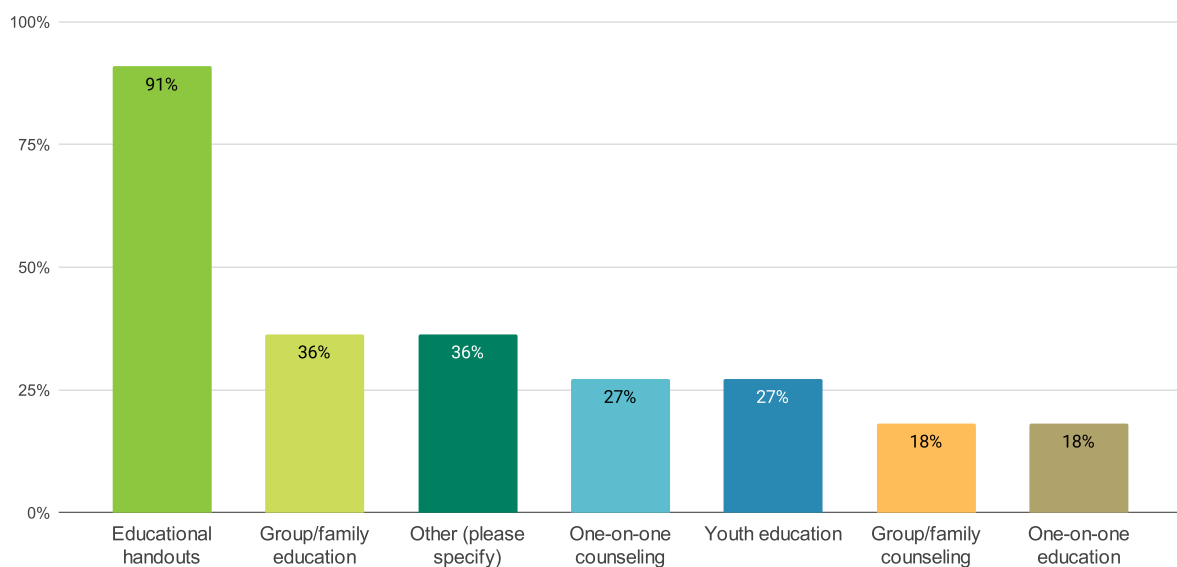
### Does your organization provide interpreters for non-English speakers?



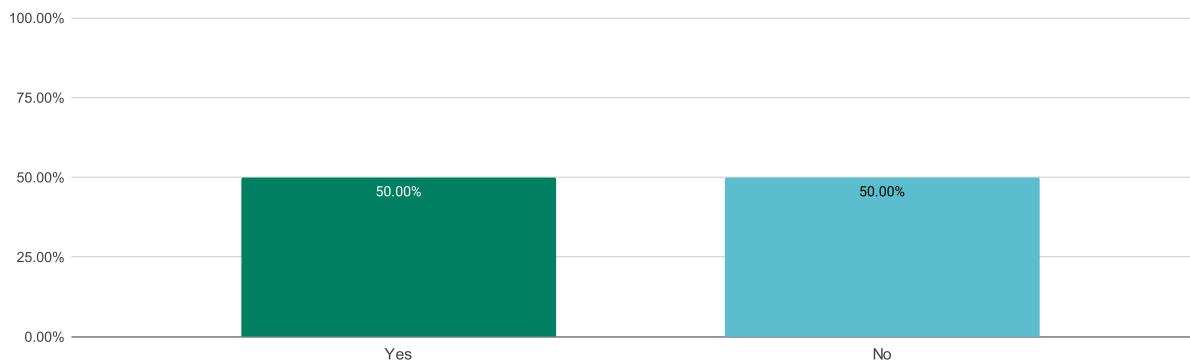
What language(s) is/are available through interpreters? Select all that apply.



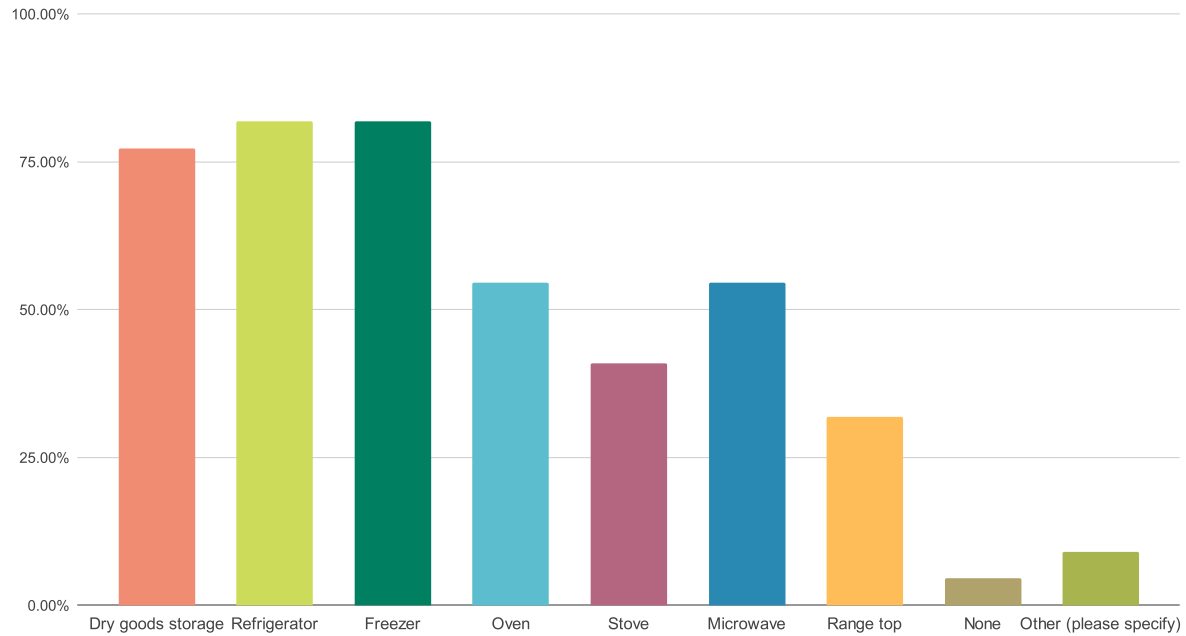
What nutrition education or nutrition-related services does your agency provide? Select all that apply.



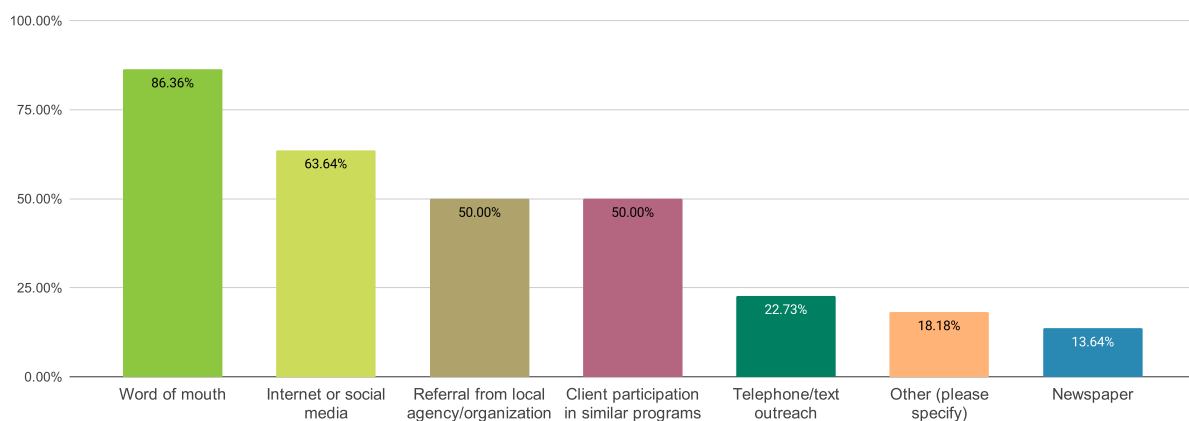
Does your organization provide nutrition education or similar nutrition-related services?



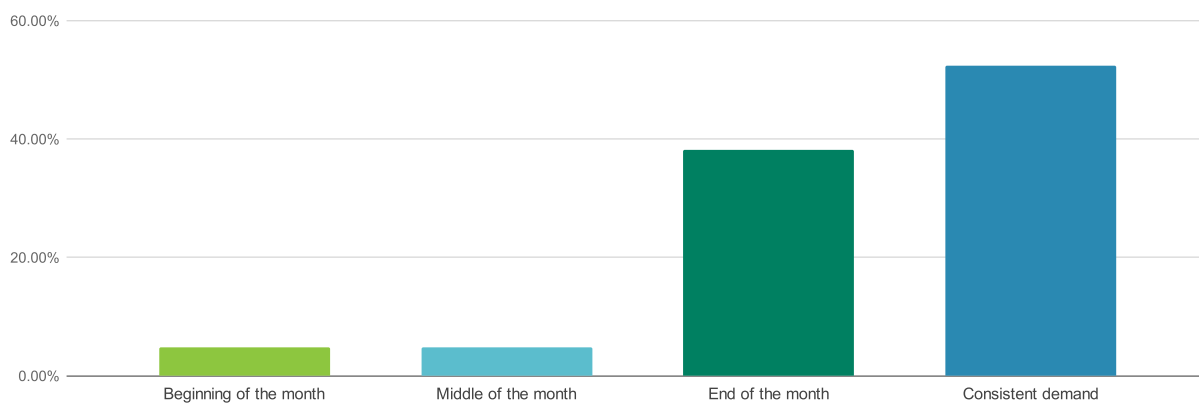
What type of on-site food storage, cooking, and/or preparing facilities does your organization have? Select all that apply.



How do most clients hear about your services? Please select 1 to 3 of the most common outreach methods used by your organization.

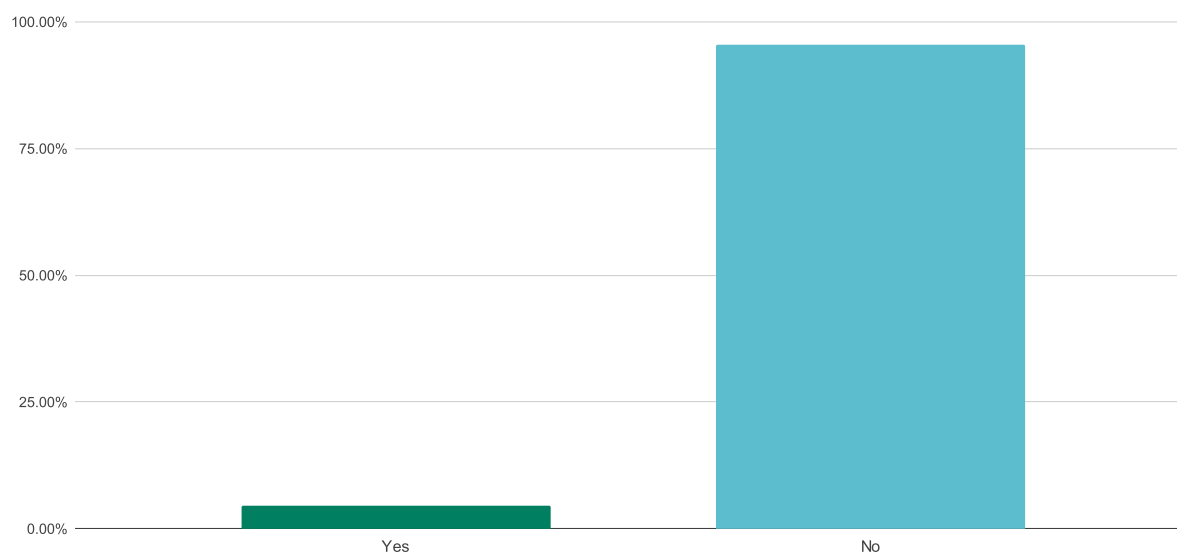


What part of the month does your organization experience the highest demand for food/meals?

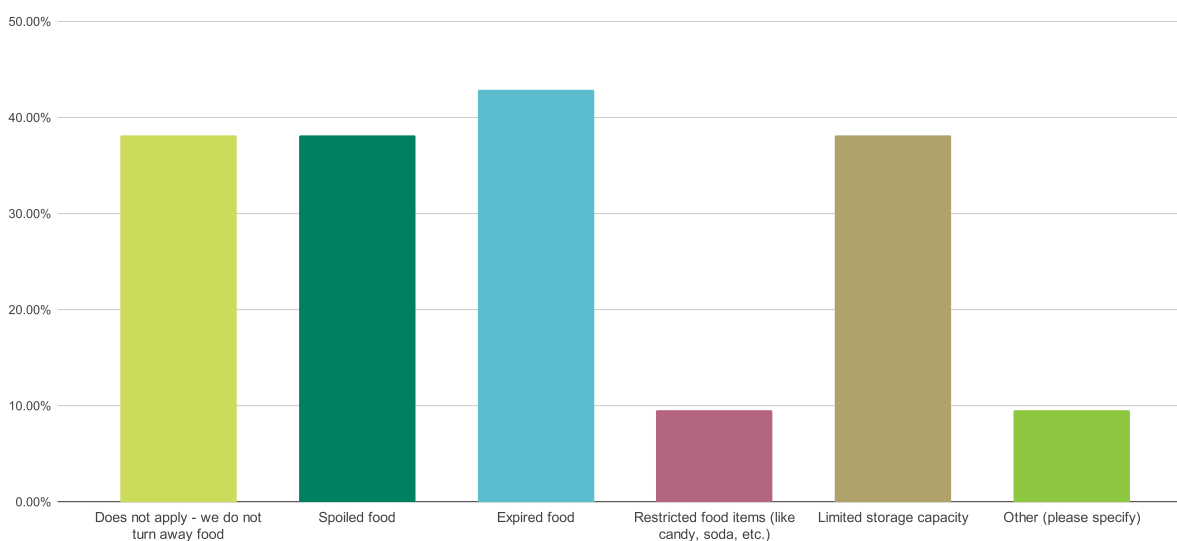




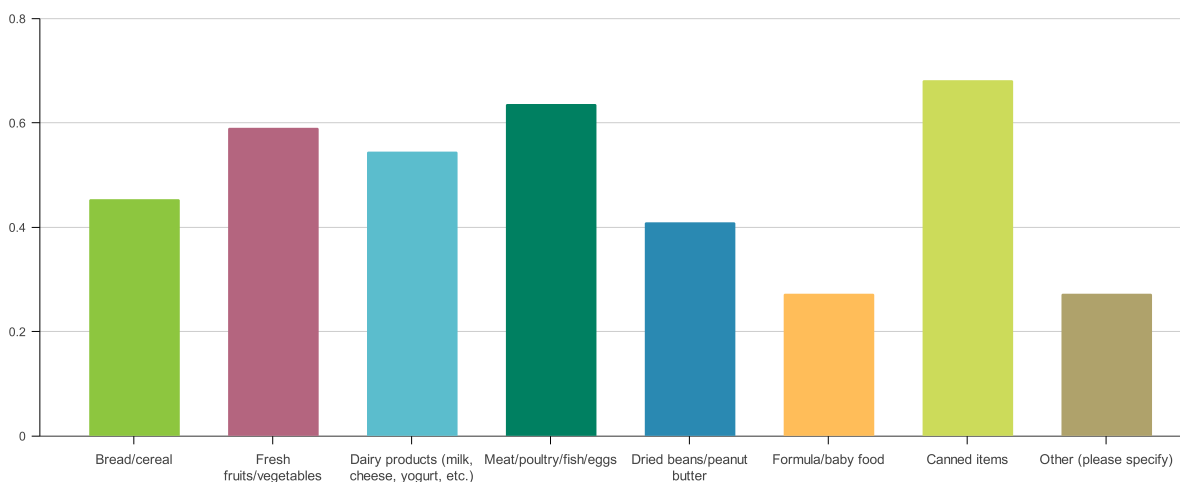
Does your organization ever have to turn clients away without providing them food/meals?



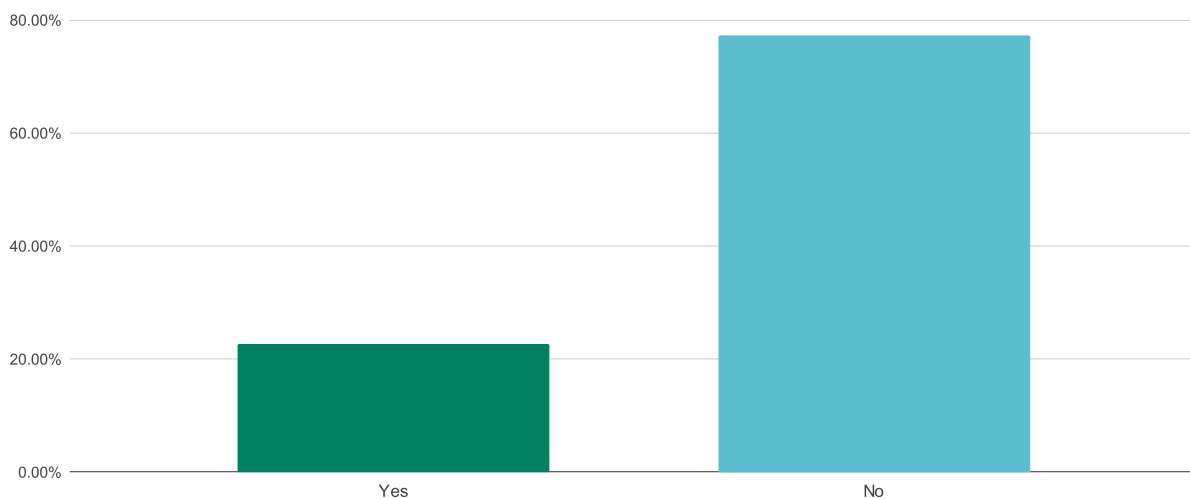
Does your agency ever have to turn food away for any of the following reasons? Select all that apply.



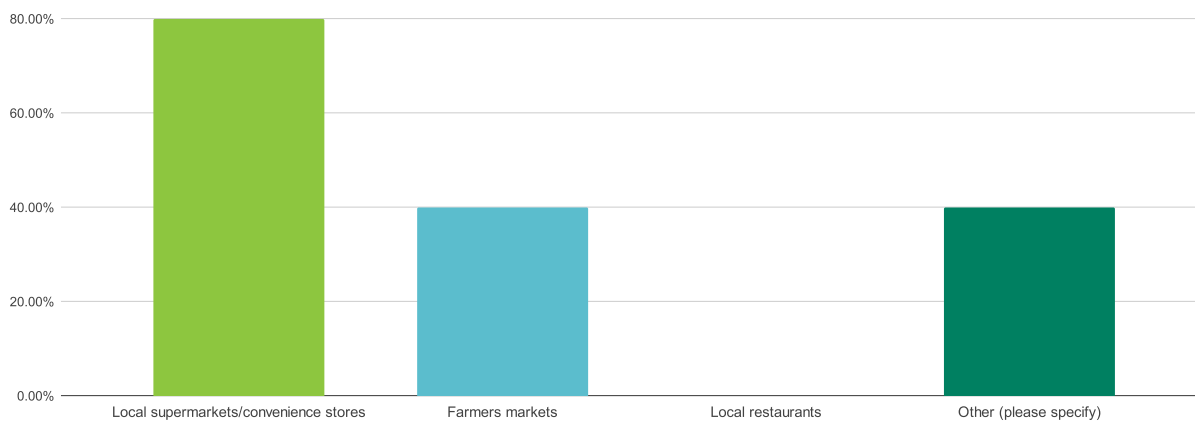
What types of food does your organization provide? Please select 1 to 3 of the most common food types provided by your organization.



### Does your organization provide food vouchers?

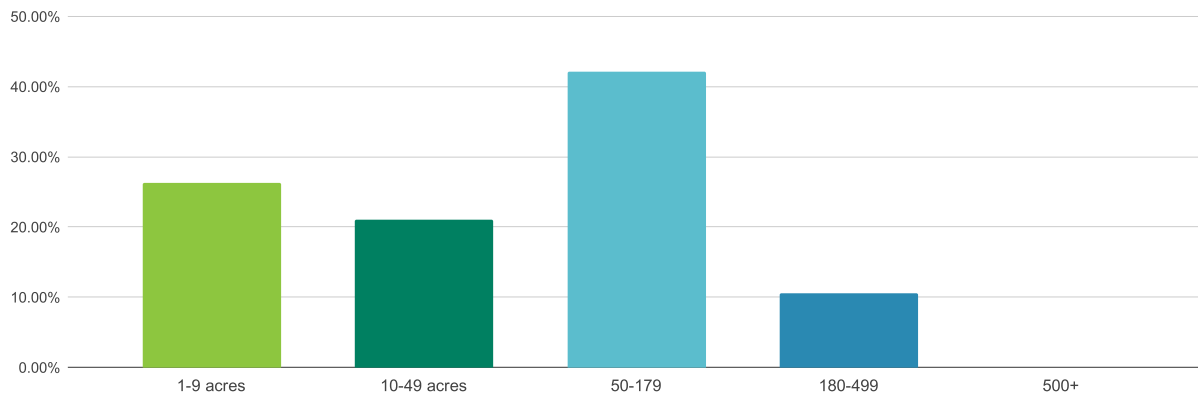


### Where can clients redeem vouchers? Select all that apply.

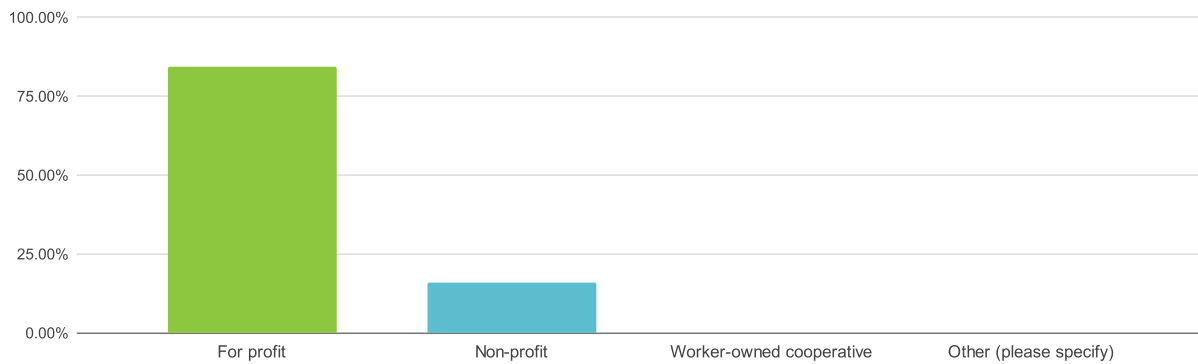


# Appendix D: Farmer Survey

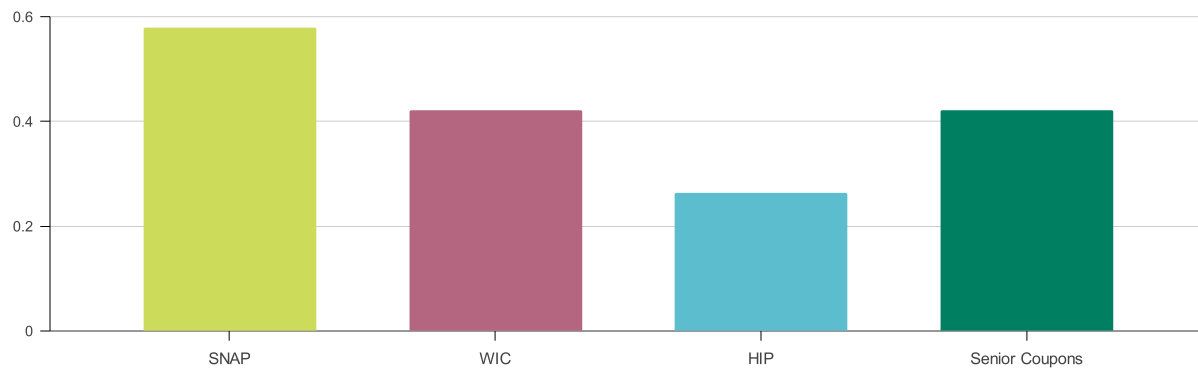
What is the size of your farm?



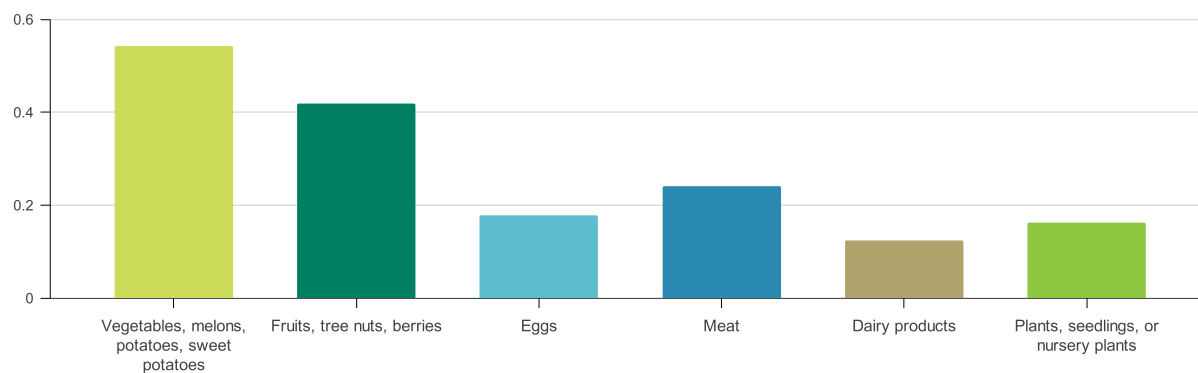
Please describe the business structure of your farm.



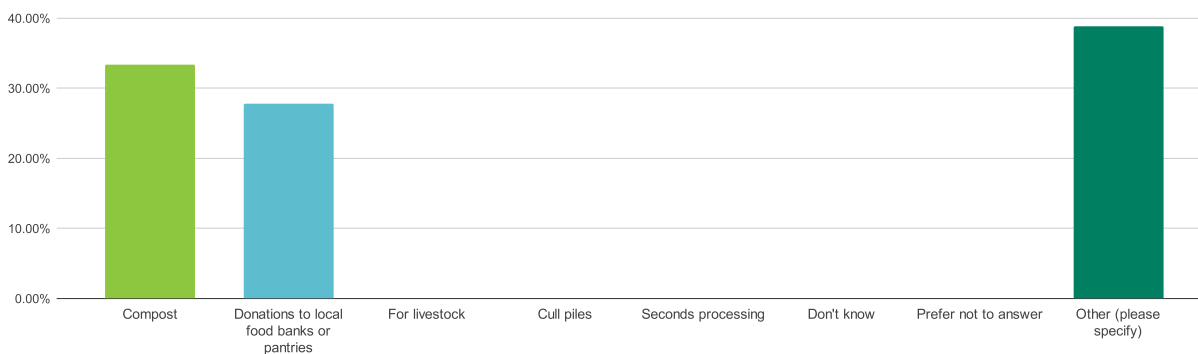
Do you accept payment from the following food assistance or incentive programs? Please select all that apply.



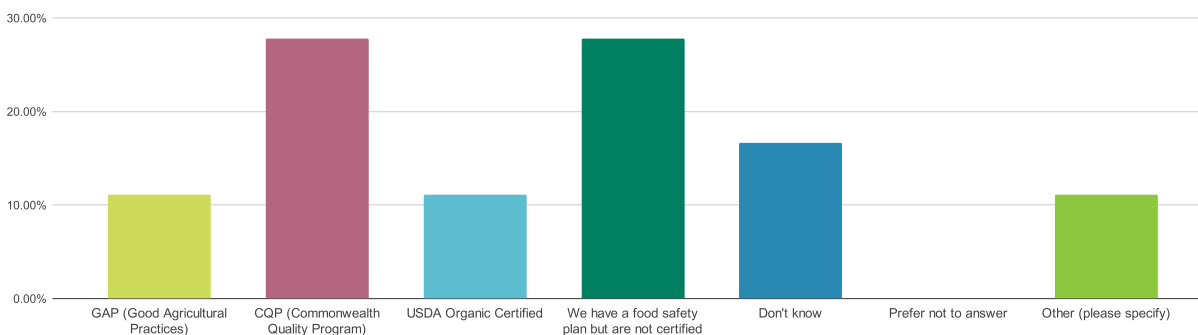
Please select the agricultural products your farm grows and/or raises. Select all that apply.



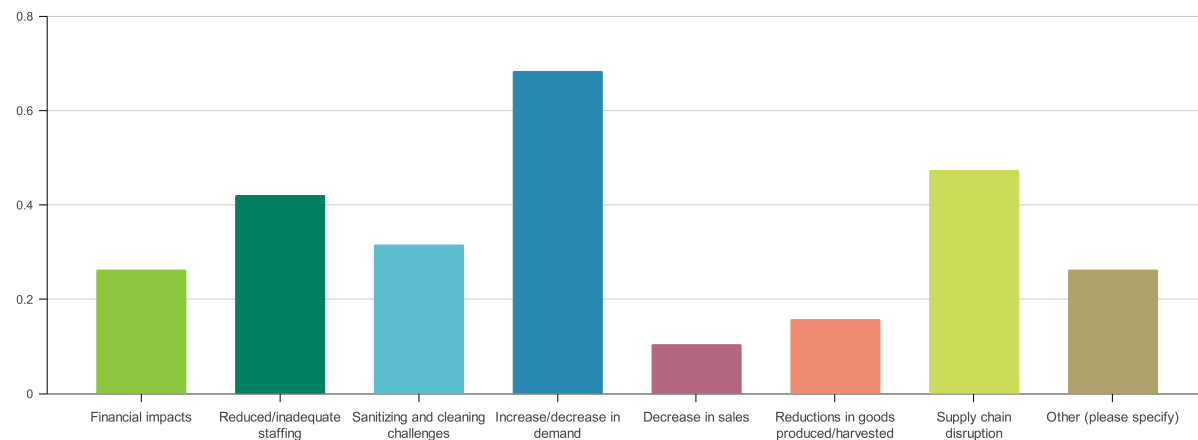
What does your farm do with food waste and/or excess food?



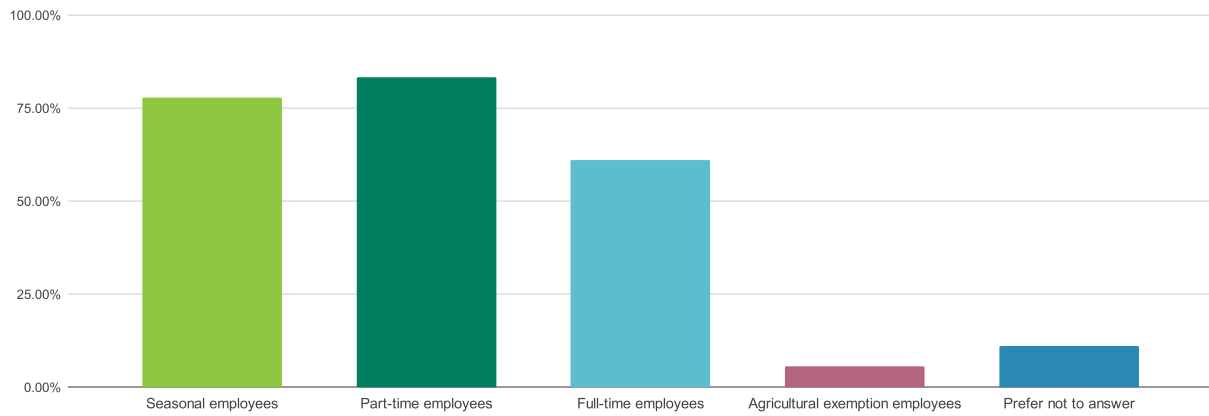
What type of food safety certification does your farm have, if any? Select all that apply.



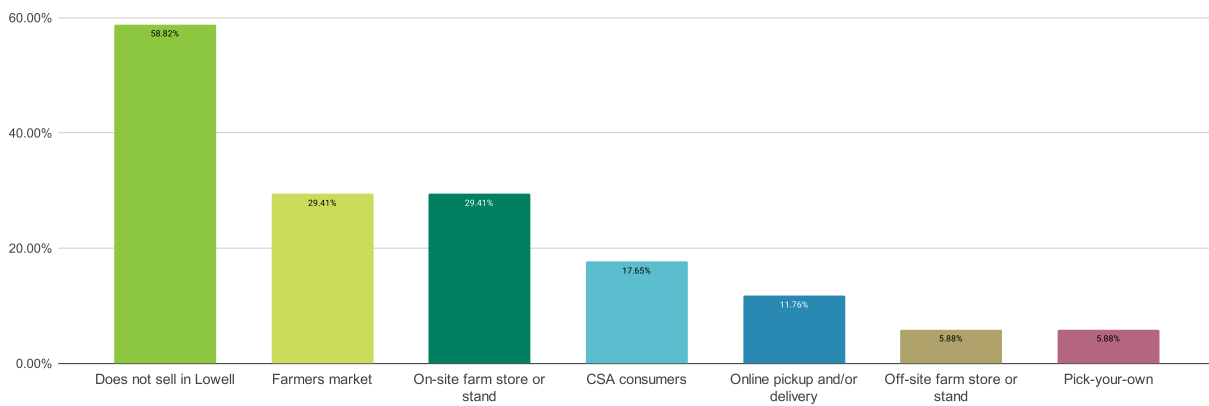
Please briefly describe the impact(s) Covid-19 has had on your operations. Select all that apply.



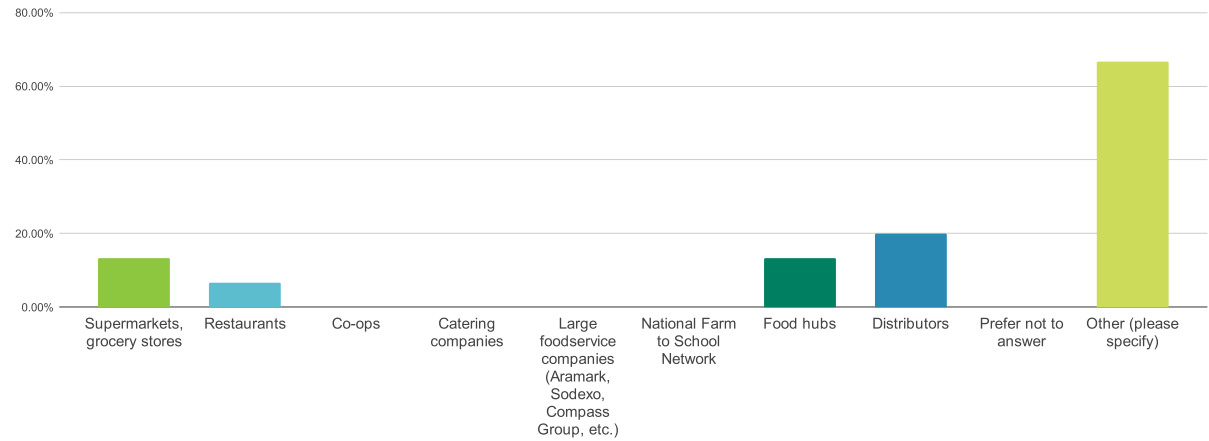
Please select the types of employees employed by your farm/agency. Select all that apply.



Please select the way(s) in which you sell your products directly to consumers in Lowell, if applicable. Select all that apply.

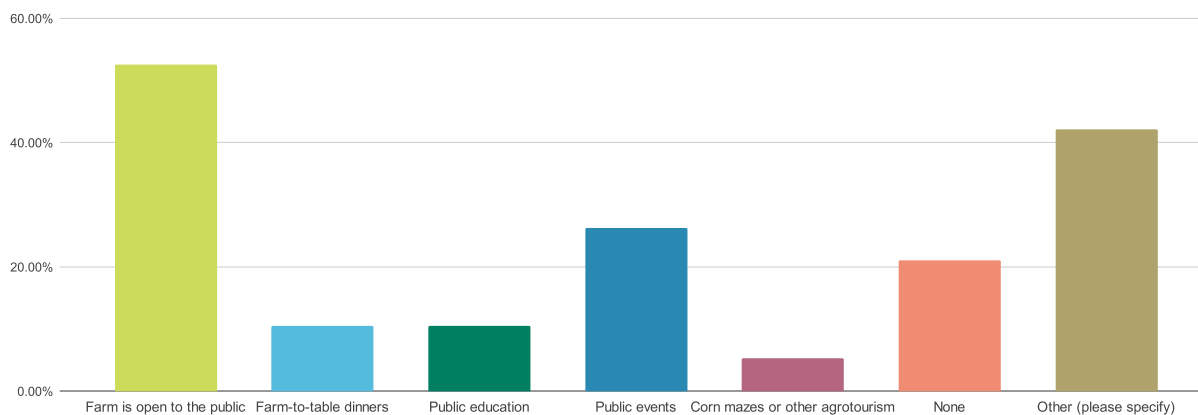


Please select the way(s) in which you sell your goods to retailers and/or institutions in Lowell, if applicable. Select all that apply.

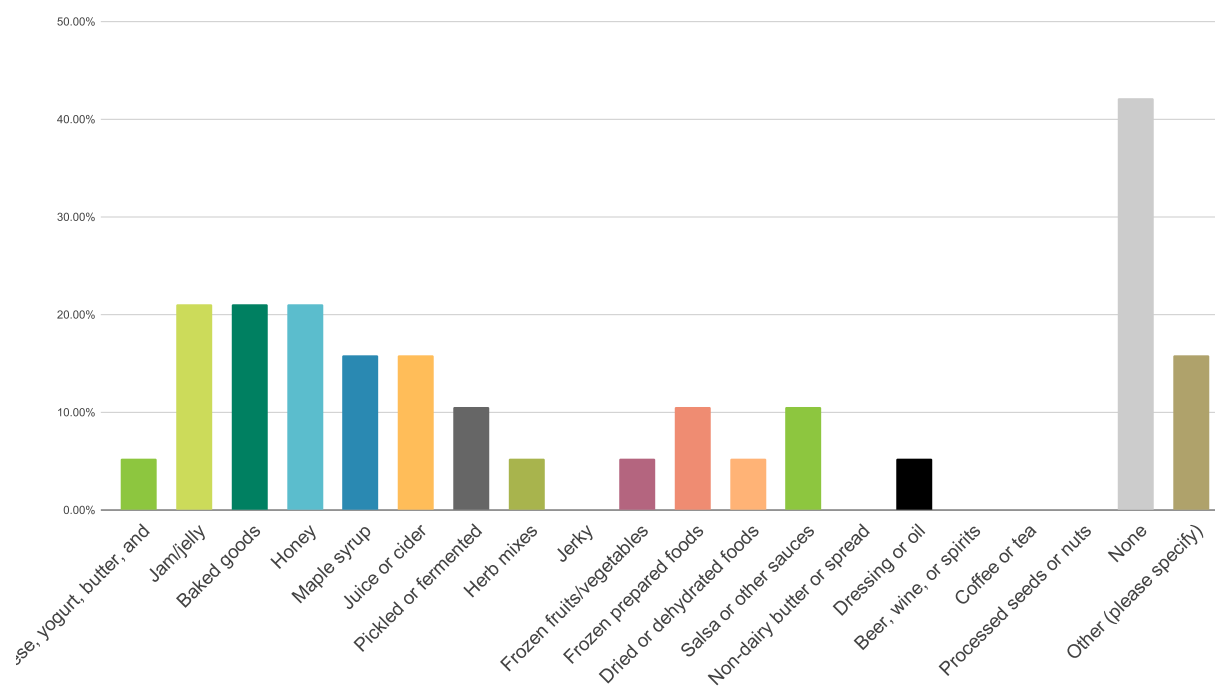




Other than retail, please describe any of the following ways your farm is open to the public or offers community activities, if applicable.



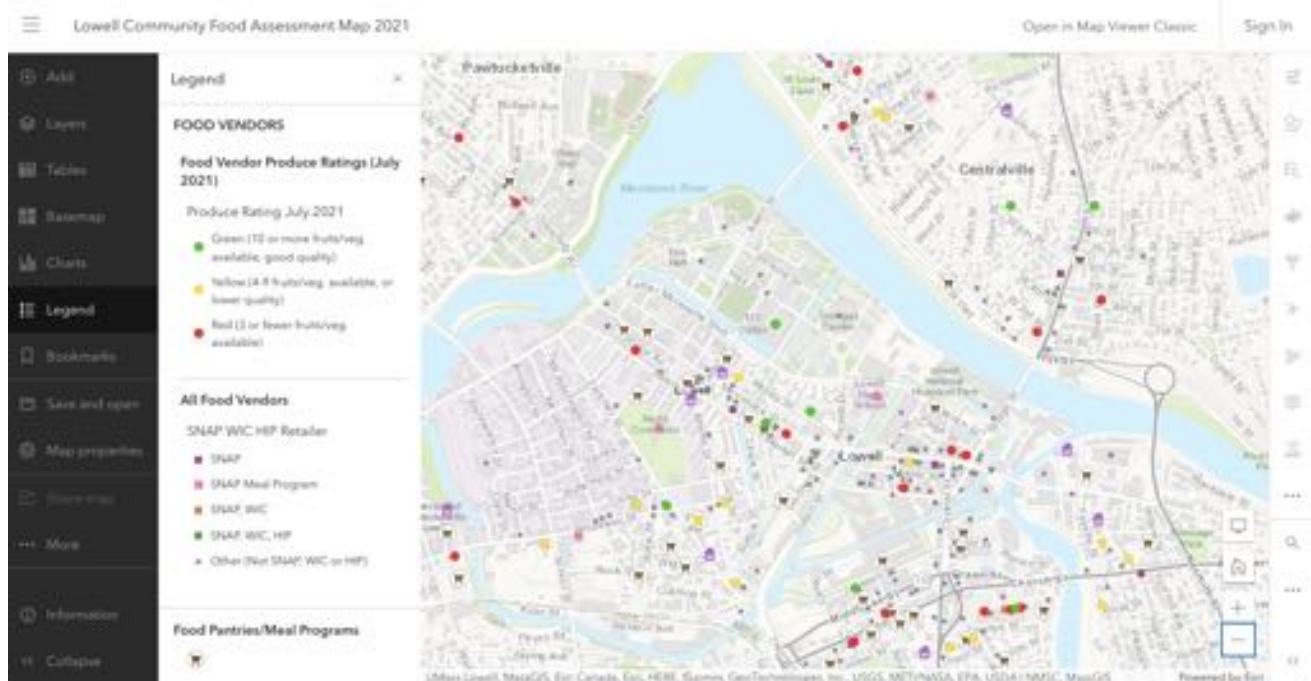
Do you produce any of the following value-added products? Select all that apply.



# Appendix E: Lowell Food System Map

An incredible amount of public and local data were collected throughout the CFA and compiled into this mapping tool. Many thanks to Carlin Andrus of Northern Middlesex Council of Governments for his support in creating this map.

[www.millcitygrows.org/2022cfamap](http://www.millcitygrows.org/2022cfamap)



Included on the map are locations of all food retailers, restaurants, pantries and meal programs. Food retailers have been rated according to a Red - Yellow - Green scale that reflects the variety and quality of fresh produce available. Also, displayed are vendors that accept SNAP/WIC/HIP benefits. Additional map layers can be viewed that show: public transit routes, houses of worship, parks, public housing, as well as an overlay of per capita income for each Lowell census tract.

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