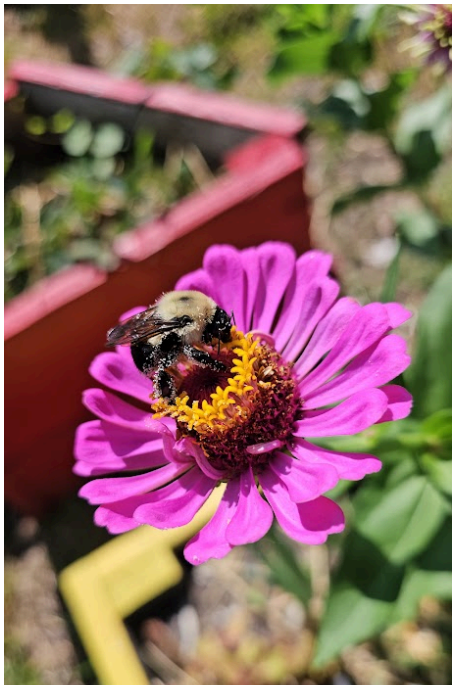
Swette Center for Sustainable Food Systems
Arizona State University

# The Impact of Culturally Affirming Community Gardens on Dietary habits and Food Security in Low-Income Food Deserts



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# Executive Summary

Food insecurity remains a critical global issue, driven by complex causes and producing wide-ranging consequences. In Newark, New Jersey, an urban community classified as a food desert, residents face persistent barriers to accessing fresh, affordable, and culturally affirming foods. Known as “Brick City”, Newark is home to 311,459[1] residents with a median age of 34.9 and a median household income of $53,818. The city’s five largest ethnic groups include Black or African American residents, 45.5% of the population, the highest ethnic group, followed by White (Non-Hispanic), 9.32%, and Hispanics or Latino residents 17.9% (DataUSA, 2023).

While urban agriculture in Newark has emerged as a strategy to improve local food security and availability, questions remain about how to access local, affordable produce that reflects the traditions, preferences, and heritage of the communities they serve, and whether such efforts influence dietary habits and food security outcomes. Many neighborhoods in Newark are home to community gardens that offer a dual benefit. These gardens intentionally produce nutritious fruits, vegetables, and herbs while reinforcing a person’s cultural identity and promoting a sense of belonging.

This research surveyed (N=35) community garden participants across multiple wards in Newark to examine the impact of culturally affirming community gardens on dietary habits and food security outcomes. It explores how gardening practices that reflect cultural traditions and preferences contribute to increased food access, healthier eating habits, and community resilience. In addition, 6 Adopt-a-Lot garden operators were interviewed to examine their roles and to understand whether their gardens primarily function as spaces for food production, social cohesion, or community-based education, and how these factors contribute to food accessibility and healthier eating.

This report presents an in-depth analysis of existing literature reviews and data collection from participant surveys and operator interviews, as well as recommendations for community-driven strategies that improve local food availability while honoring cultural identity. Findings reveal common themes centered on the importance of social, emotional, and cultural garden-based workshops, diverse farm-to-fork education, opportunities for social engagement, and the foods that validate a person’s culture.

[1]United States Census Bureau, https://data.census.gov/profile/Newark_city,_New_Jersey

# Introduction

Urban agriculture has emerged as a significant source of local food production in New Jersey, playing a vital role in addressing community food needs while fostering economic and social benefits (**Figure 1)**. According to the Rutgers Office of Urban Extension & Engagement, urban agriculture can be defined as growing fruits, herbs, and vegetables, and raising animals in cities, a process that is accompanied by many other complementary activities such as processing and distributing food, collecting and reusing food waste and rainwater, and educating, organizing, and employing residents (Rutgers Office of Urban Extension & Engagement, 2022)). In New Jersey's densely populated urban areas, i.e., Jersey City, Paterson, and Newark, the top three, these practices not only increase access to fresh and nutritious foods but are also the closest points of access to people with the greatest need.

Urban agriculture encompasses a variety of models, with community gardens serving as one of the most accessible and community-driven forms. These parcels of land, cultivated by groups of unrelated residents, transform underutilized urban spaces into productive green areas where individuals can grow food for personal use, share harvests, and build social connections. A unifying purpose of community gardens is their role in facilitating community development, sustainability, and food security (Bowersox, 2014).

Historically, community gardens emerged in the 1890s in response to environmental degradation, economic instability, immigration, and urban congestion, providing communities with a reliable source of food (Draper & Freedman, 2010). Today, they continue to serve as grassroots responses to the social, environmental, and economic challenges faced by low-income populations. In Newark, community gardens offer residents an affordable source of fresh produce while fostering skills in gardening, nutrition, and sustainability. Beyond improving access to healthy food, these spaces also function as cultural and social hubs where traditions are shared, culinary heritage is preserved, and community identity is strengthened.

Although community gardens are on the rise and producing much more than food to promote health, food insecurity remains a persistent challenge in Newark, an urban community classified as a food desert, where residents face limited access to fresh, affordable, and culturally relevant foods. According to Map the Meal Gap 2025, food insecurity averages approximately (14%) across counties and districts, a figure consistent with the USDA's 2023 estimate that (14.3%) of individuals reside in food-insecure households. These statistics highlight the widespread and systemic

nature of food insecurity, underscoring the urgency of interventions that address both nutritional access and cultural relevance (Dewey et al., 2025). While community gardens are recognized for their potential to increase food availability, limited research has examined whether these growing spaces shapes sovereign foodways, creates space for placemaking and autonomous identity shaping (Zail, 2023).

Culturally affirming community gardens may offer a dual benefit: improving nutritional access while honoring cultural identity in marginalized urban areas. Understanding this relationship is critical for developing sustainable, community-driven strategies that address nutritional needs while reinforcing cultural connections to food.

This study employs a mixed-methods approach, combining qualitative interviews with community gardeners who manage or own lots in Newark and a supplemental survey of garden participants. Data collection focuses on measuring the impact of culturally affirming community gardens on dietary habits and food security among low-income residents in Newark, New Jersey. The goal is to identify effective practices in culturally responsive food justice work and to generate insights that can guide future community-based initiatives and inform policy recommendations.

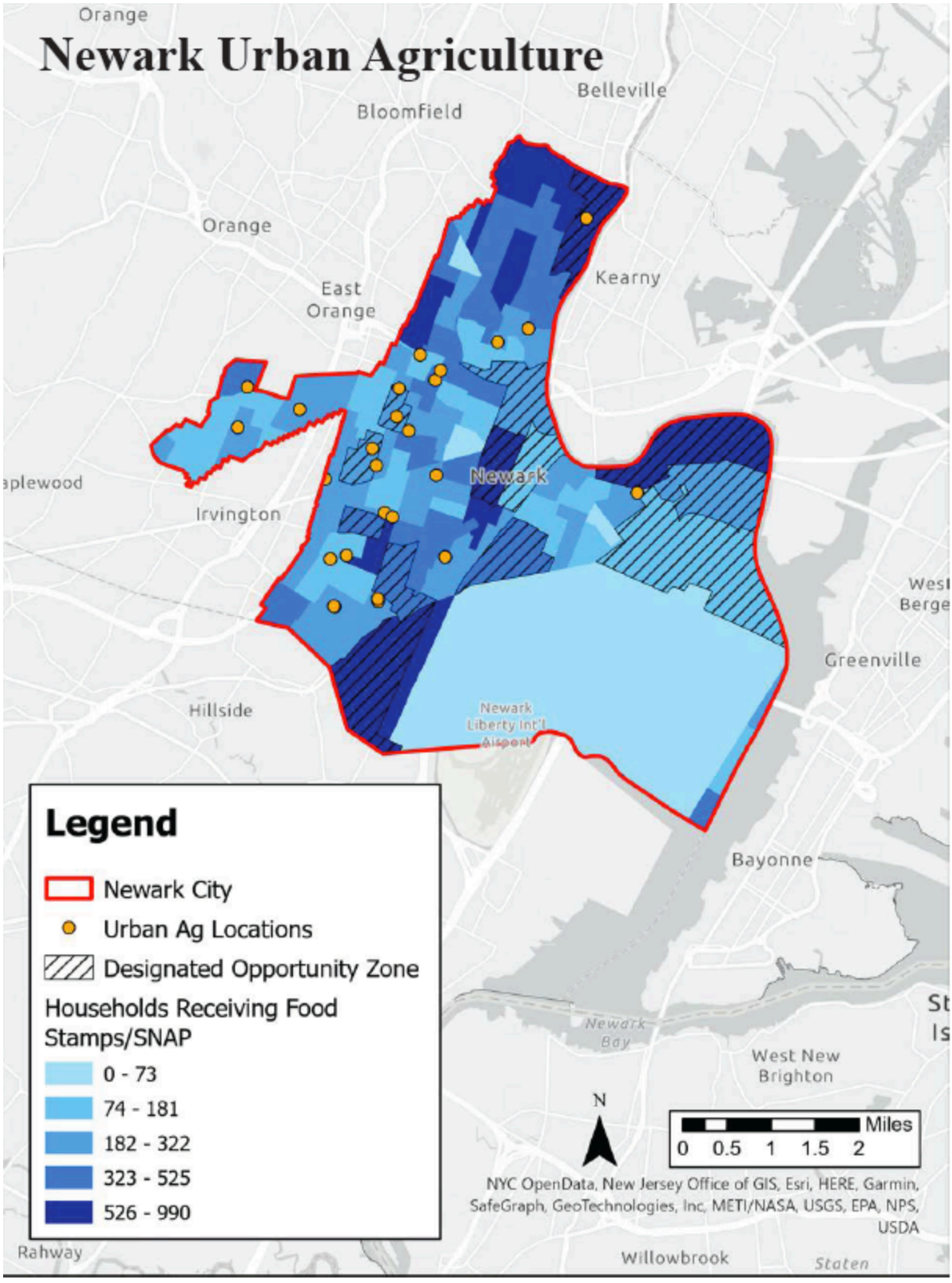


**Figure 1:** Agriculture locations in Newark in relation to Designated Opportunity Zones and households receiving SNAP.

# Literature Review: The Impact of Culturally Affirming Community Gardens on Dietary Habits and Food Security in Low-Income Food Deserts

Newark, NJ, is located in the northeastern part of the United States. Geographically, it is situated in Essex County and is approximately 8 miles west of Manhattan, New York City[2]. Newark's location places it at the intersection of urban, suburban, and industrial landscapes, with a rich history tied to immigration, industrial growth, and its ongoing efforts to revitalize urban areas (Geisheimer, 1998).

The urban city known as Brick City is home to 307k people with a median age of 34.8 and a median household income of $48,416.00[3] compared to the NJ's median Income level $85,245. The city has the five largest ethnic groups in its growing population, with Black or African American residents making up 45.5% of the population, the highest ethnic group, followed by White (Non-Hispanic) at 9.32%, and Hispanics at 17.9% (DataUSA, 2023). They are the 3rd largest city with a higher population density compared to New Jersey (Rutgers Office of Urban Extension & Engagement, 2022).

Newark faces significant economic challenges that directly contribute to high rates of food insecurity. According to a 2023 report, approximately 24.7% of its population lives below the poverty line, the highest compared to the state of NJ (DataUSA, 2023). This elevated poverty rate is a major barrier to food access, as many residents struggle to afford nutritious food. Underlying structural inequalities, such as chronic "unemployment" and systemic disadvantages rooted in structural racism, are recognized as key drivers of food insecurity (Engelhard & Hake, 2020). The New Jersey Office of the Food Security Advocate reported in 2023, more than 214,000 New Jersey residents (4.4%) experienced unemployment in an average month[4] further limiting household purchasing power.

Economic constraints are compounded by rising food prices and the increasing cost of other essentials such as housing, utilities, and health care. When household budgets are strained, food expenditures are often among the first to be reduced (Loopstra & Tarasuk, 2013). A 2023 analysis of the national food budget survey found that

[2] Old Newark, https://oldnewark.com/mainindex.php
[3] DataUSA, https://datausa.io/profile/geo/newark-nj
[4] NJ Office of the Food Security Advocate https://www.nj.gov/foodsecurity/food-security/about/

food-insecure households require an additional $22.37 per person per week to meet their food needs. With 47.4 million individuals living in food-insecure households and experiencing food insecurity for approximately seven out of twelve months, this shortfall amounts to an annual national gap of $32.2 billion[5]. The expiration of pandemic-related safety net programs has further intensified these challenges, making it more difficult for families to meet their nutritional needs.

In response, Newark has participated in a range of collaborative, community-driven initiatives to address food insecurity and improve dietary health. Many of these efforts build on previous healthy and sustainable community strategies, emphasizing local priorities and leveraging grassroots leadership focused on the “revival of communities and the creation of sustainable livelihoods” (Gottlieb & Joshi, 2010). Such initiatives aim to address the compounding challenges of low income, poverty, and limited access to fresh food and full-service supermarkets by fostering systems that promote equitable access to healthy, affordable, and culturally relevant foods.

## Urban Agriculture as a Response to Food Insecurity

Urban agriculture has emerged as a practical and community-centered strategy for addressing food insecurity in densely populated cities such as Newark. Many urban non-profits, e.g., Greater Newark Conservancy, Urban Agriculture Cooperative, and Clinton Hill Community Action, provide direct support to community gardens and their agricultural activities (Rutgers, 2022). Newark city programs such as the “Adopt-a-Lot” initiative illustrate how municipal policy can support community-led food production, enabling residents to transform vacant properties into productive and socially vibrant spaces[6]. In doing so, urban agriculture addresses both the immediate need for fresh, affordable food and the long-term goal of creating resilient, culturally affirming food systems in underserved neighborhoods.

Since its inception, Newark’s Adopt-a-Lot program has become a cornerstone of the city’s urban agriculture strategy. In 2007, there were only 11 adopted lots, but by 2013, the program had expanded to 98 lots, covering nearly 9.5 acres of land (Sustainable Newark NJ, 2014). This rapid growth illustrates the city’s commitment to transforming vacant parcels into productive spaces that support food access, environmental health, and neighborhood revitalization.

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[5] Therefore, we calculate the national annual aggregate shortfall as follows: $22.37 per person per week x 47,389,000 individuals in food-insecure households x 52 weeks per year x 7/12 months. Map the Meal Gap, 2025 “Feeding America” https://map.feedingamerica.org/

[6] City of Newark office of Sustainability
https://sustainablenewarknj.wordpress.com/2014/11/12/2014-adopt-a-lot-season/

## Community Gardens

According to Draper and Freedman (2010), the term ‘community’ in community gardening reflects the collective effort of individuals who come together in diverse settings such as schools, neighborhoods, faith organizations, and healthcare or correctional institutions, to grow food and other plants. These gardens benefit people of all ages, races, ethnicities, socioeconomic backgrounds, and abilities.

A notable example is Al-Munir’s urban agriculture model, which leases city land for just $1 per year and now provides culturally relevant food to more than 40 families in the North and South Wards[7]. On its 6,500 square feet of reclaimed land (two parcels), Al-Munir cultivates okra, tomatoes, collard greens, melons, and herbs, distributing food and value-added products through Clinton Hill Community Action, local businesses, farm-to-table events, and community apothecaries. By combining food production with cultural preservation and community empowerment, farms such as Jannah on Grafton and Eden’s Farm exemplify how Adopt-a-Lot can advance food justice and community resilience in Newark, while also growing crops that hold significance for diverse cultures and ethnic groups.

In New Jersey, a statewide Urban Agriculture Survey conducted by Rutgers highlights the importance of community gardens as a food security strategy. Over half (52%) of 115 respondents identified as backyard, home, or community gardeners, while 8% identified as urban farmers, and the remainder as hobbyists, small growers, educators, or non-profits. Nearly two-thirds (66%) reported more than five years of growing experience, with neighborhood and community gardens serving as the most common sites for food production, particularly in urban areas where they are often the only available open spaces (Rutgers Office of Urban Extension & Engagement, 2022). More than half of respondents ranked providing food for their families, increasing food access, and advancing environmental sustainability among their top three reasons for participation[8].

These local findings are consistent with research in other states, where community gardens have also shown measurable dietary and policy impacts. In Loma, California, the Department of Health Services established a community garden with 52 plots serving over 40 ethnically diverse gardeners. Among participants, 35% reported an

[7]In Newark, NJ, Residents Nurture Health From the Ground Up https://stateofchildhoodobesity.org/bilal-walker/

[8]Rutgers Cooperative Extension, Office of Urban Extension and Engagement. 2022. Urban Agriculture Strategies for the State of New Jersey. Presented to the State of New Jersey, Department of Agriculture. New Brunswick, NJ: Rutgers, The State University of New Jersey.

increase in fruit and vegetable consumption, rising from an average of 3.0 to 3.71 servings per day. Similarly, the California Nutrition Network for Healthy Active Families supported two gardens with 218 plots involving 600 gardeners, opened a greenhouse to extend year-round production, and advanced local policies such as the “Adopt-a-Lot” program to encourage interim use of vacant land and a no-cost water policy for gardens on city property (Twiss et al., 2003). These examples illustrate how community gardening initiatives can improve dietary intake, strengthen food access, and influence municipal support for urban agriculture as a sustainable food system strategy.

Community garden research has consistently demonstrated positive associations with dietary intake and food access. Alaimo et al. (2008), in a study of Flint, Michigan, found similar results to Loma, California, with increased fruit and vegetable consumption when participating in a community garden, underscoring the role of gardens as direct interventions for healthier eating. Similarly, Hill (2020) highlighted the cultural and food security functions of gardens for New American communities, noting that they enabled immigrant and refugee participants to grow culturally significant crops, reduce food costs, and preserve heritage foodways.

While these studies provide critical insights into the nutritional and cultural dimensions of gardening, they examine these outcomes separately, focusing either on intake or cultural preservation. The present research in Newark bridges this gap by integrating both perspectives, employing a mixed-methods design to simultaneously assess dietary outcomes, food security, and cultural affirmation across diverse low-income populations. By demonstrating that culturally affirming community gardens not only increase access to fresh produce but also preserve cultural identity and foster community resilience, this study contributes to a more holistic understanding of how urban agriculture can function as a dual strategy for both food justice and cultural sustainability.

By integrating food production with cultural preservation and community empowerment, these community gardens have become cornerstones of sustainable development in densely populated cities like Newark, demonstrating the capacity of urban agriculture to advance food justice, environmental health, and community resilience.

## Research Gap and Purpose of Study

While extensive research has documented the role of urban agriculture and community gardens in addressing food insecurity, much of the scholarship has focused broadly on improving access to food and nutrition. This study aims to examine the cultural dimensions of urban food production, particularly how community gardens can

intentionally affirm cultural identities through the cultivation of heritage crops and traditional food practices. This gap is especially significant in densely populated, immigrant-rich, ethnically diverse cities like Newark, where food traditions and cultural identity play a critical role in shaping dietary behaviors and food choices.

The purpose of this study is to examine how culturally affirming community gardens influence dietary habits and food security outcomes in Newark, New Jersey. Using a mixed-methods approach, which includes surveys of garden participants and interviews with Adopt-a-Lot garden operators, this research aims to identify effective practices in culturally responsive food production. The findings are intended to guide urban agriculture policies, and contribute to the broader discussion on how culturally affirming practices can help preserve culinary traditions, strengthen cultural identity, and promote intergenerational knowledge sharing about food preparation and agricultural practices. By supporting culturally relevant food production, community gardens contribute to dietary diversity, promote healthier eating habits, and foster a sense of belonging among residents from varied backgrounds.

# Research Methodology and Data Collection

## Introduction to Methodology

The purpose of this study is to examine the impact of culturally affirming community gardens on dietary habits and food security among low-income residents in Newark, New Jersey. Little research has investigated how intentional efforts to grow culturally relevant foods that affirm one's heritage and identity influence eating behaviors and food access in low-income populations. To address this gap, a mixed-methods approach was employed to capture both the measurable outcomes of community garden participation and the lived experiences of those engaged in these spaces. The study was conducted in collaboration with community gardeners, volunteers, and participants across Newark, alongside interviews with garden operators managing Adopt-a-Lot sites that have been converted into productive gardens to expand local food access in low-income neighborhoods.

This study was reviewed and approved by Arizona State University's Institutional Review Board (IRB) to ensure compliance with ethical standards for research involving human participants. Informed consent was obtained from all participants before data collection. Survey participants accessed a pre-screening digital consent form via QR code before beginning the survey, while interview participants received written consent forms via email in advance of scheduling the interview. Participation was voluntary, limited to adults 18 years or older, and participants were free to withdraw at any time without consequence.

## Participants

Two groups of participants were engaged in the research. First, a survey was administered to (N=35) community garden participants across Newark's wards to assess dietary habits, food security status, and experiences with culturally relevant crops. Second, a total of 6 Adopt-a-Lot garden operators were interviewed, who provided insights about crop production, garden management, and the role of culturally affirming practices in serving residents' needs.

# Data Collection: Surveys

Potential participants were recruited by garden operators who displayed announcements at community garden sites and shared information during garden-hosted community events. They were also contacted directly through email invitations distributed to community garden subscriber lists. Recruitment materials included a QR code linking to the prescreening description and consent form, which participants completed before accessing the survey.

Inclusion criteria required participants to (1) be 18 years of age or older, (2) reside in Newark, and (3) either participate in or have involvement with a community garden. Recruitment was conducted in collaboration with garden operators, and participants were informed that Community Supported Agriculture (CSA) boxes or crop bundles from garden harvests would be distributed equitably as an incentive for their participation, in coordination with garden coordinators.

## Quantitative Analysis

The survey consisted of 35 questions and took approximately 15 minutes to complete over a 4-week timeframe (see Appendix). Survey data were analyzed online using the cloud-based platform Qualtrics. Descriptive statistics were used to summarize demographic characteristics, household food security levels, and dietary habits of participants. Frequencies and percentages were calculated for categorical variables such as food security status, while means and standard deviations were reported for continuous measures such as servings of fruits and vegetables consumed per day. Scale-based items, including the USDA Household Food Security Measurement Scale (HFSSM) the most widely used scale for measuring household food security and household members' hunger (Keenan et al, 2001). The *Starting the Conversation* (Paxton et al, 2011) tool captures dietary patterns and healthy eating behaviors. Cross-tabulations were conducted to examine relationships between community garden participation, cultural affirmation responses, and household food security outcomes.

# Data Collection: Interviews

Semi-structured interviews were conducted with 6 Adopt-a-Lot garden operators who manage community gardens throughout Newark. Eligible participants were identified by the Science and Sustainability Urban Agriculture directory and contacted directly by the researcher. Those who expressed interest were sent an interview consent form in advance. Interviews lasted between 45 minutes to one hour over a 4-week timeframe and were conducted via Microsoft Teams or Google Meet. With participant consent, interviews were both recorded and transcribed for later analysis. The interview protocol

followed the approved IRB script (**see Appendix**) and focused on the role and purpose of community gardens, crop production, culturally affirming practices, and the broader impact of gardens on food access and community well-being. Participation was voluntary, and only consenting adults 18 years or older were included.

## Qualitative Data Analysis

Interview transcripts were analyzed using a thematic coding approach. Transcripts were first reviewed for accuracy and then imported into Word. Initial open coding was conducted to identify recurring concepts related to culturally affirming practices, food access, and community engagement. Codes were then grouped into broader categories, which were refined into themes through iterative analysis. Key themes included the role of cultural identity in crop selection, community resilience, social cohesion, and challenges associated with sustaining urban agriculture in Newark. To strengthen validity, themes were compared across interviews, and supporting quotations were extracted to illustrate participant perspectives.

# Results

## Data Analysis - Demographics

The demographic profile of survey respondents reflected the diversity of Newark's community garden participants **(Table 1)**. Of the 35 participants 78% identified as female, 19% male, and Black/African American, with representation also from Hispanic/Latino, Asian, White, and other racial and ethnic groups. They represented a wide range of ages, with one-fifth between 18-29 years old, one-quarter ages 30-44, and nearly one-third ages 45-59, and about one-quarter aged 60 or older. Newark's community gardeners range from young adults to seniors, making them intergenerational spaces for cultural exchange. Nearly equal proportions holding a high school diploma, some college, or a bachelor's degree or higher. Household incomes varied considerably, though a substantial share reported annual incomes below $35,000 **(Figure 2)**, underscoring the economic challenges faced by many residents. Respondents were distributed across multiple wards in Newark, including the North, South, West, Central, and Vailsburg neighborhoods. This diverse demographic composition provides important context for interpreting how culturally affirming community gardens impact dietary habits and food security outcomes.

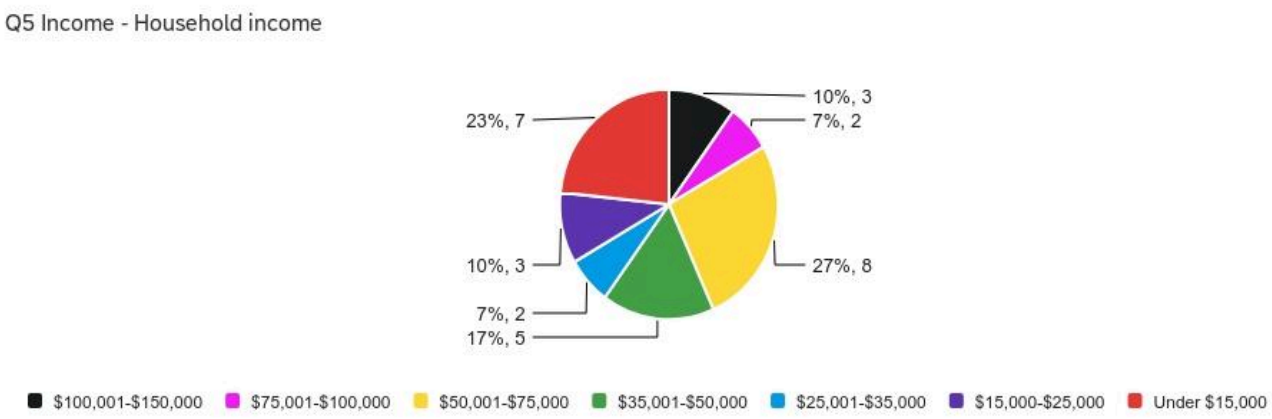


**Figure 2:** Household income

Building on this demographic profile, the following results examine key outcomes related to food security, dietary intake, and the role of culturally affirming practices within Newark's community gardens.

| Demographics | Unit | Unit | |
|---|---|---|---|
| **Participation in a community garden** | N=35, 97.22% | N=1, 2.78% | |
| **Gender** | | | |
| **Male:** | N=7, 21% | | |
| **Female:** | N=25, 76% | | |
| **Other:** | N=1, 3% | | |
| **Education** | | | |
| **High school** | 7 - 21% | | |
| **Bachelors Degree** | 9 - 27% | | |
| **Master's Degree or above** | 7 - 21% | | |
| **Some College** | 10 - 30% | | |
| **Race** | | | |
| **Black/African American** | 78% | | |
| **Something else, please specify** | 15% | | |
| **White/Caucasian, Anglo, European American, not Hispanic** | 6% | | |
| **Fruit and vegetable intake consumption** | | | |
| | 73.33% - Yes | 20% - No | 6.67% - Not sure |

**Table 1:** Fruit and Vegetable Intake, Demographic Information, and Neighborhood Participation by Household Participation in a Community Garden

# Survey Results: Food Security Outcomes (HFSSM)

The USDA Household Food Security Module (HFSSM) results show that while many participants expressed concerns about food insecurity, most did not experience its most severe outcomes. Nearly half 48% reported being worried at least sometimes that food would run out before money was available, and 39% said the food they bought did not last. (**Figure 3**).

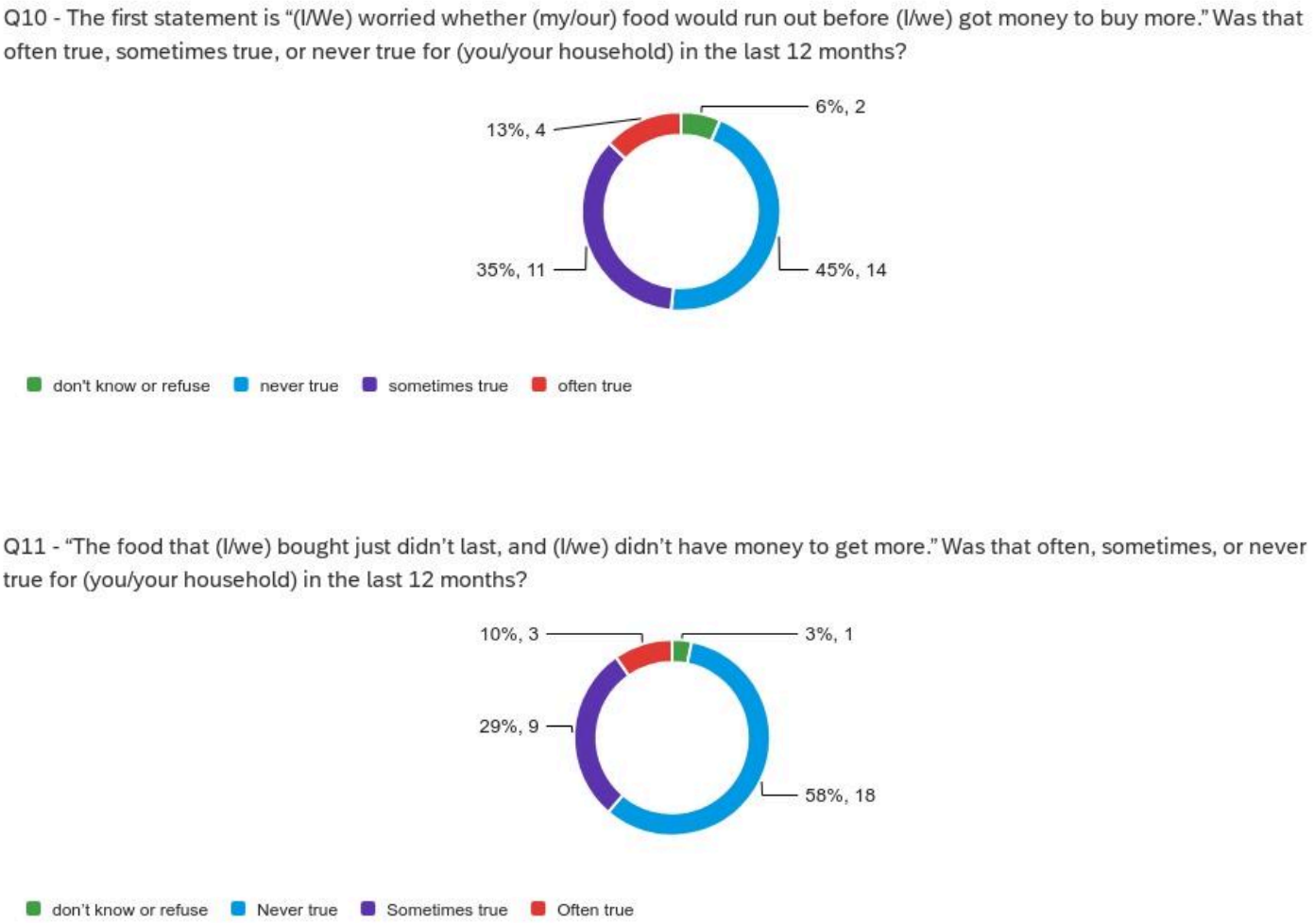


**Figure 3:** Food security outcomes (HFSSM)

However, only 10% reported cutting or skipping meals due to lack of money, and when it occurred, it was sporadic rather than chronic. Similarly, just 10% reported eating less than they felt they should, with one-third indicating “maybe” **(Figure 4)**. The most severe indicators of food insecurity were relatively rare: only 3% **(Figure 5)** reported going hungry due to insufficient resources, and 6% reported weight loss, while the overwhelming majority did not experience these conditions. Taken together, the findings suggest that Newark community garden participants face ongoing concerns about food adequacy, but severe food deprivation was limited to a small subset of respondents.

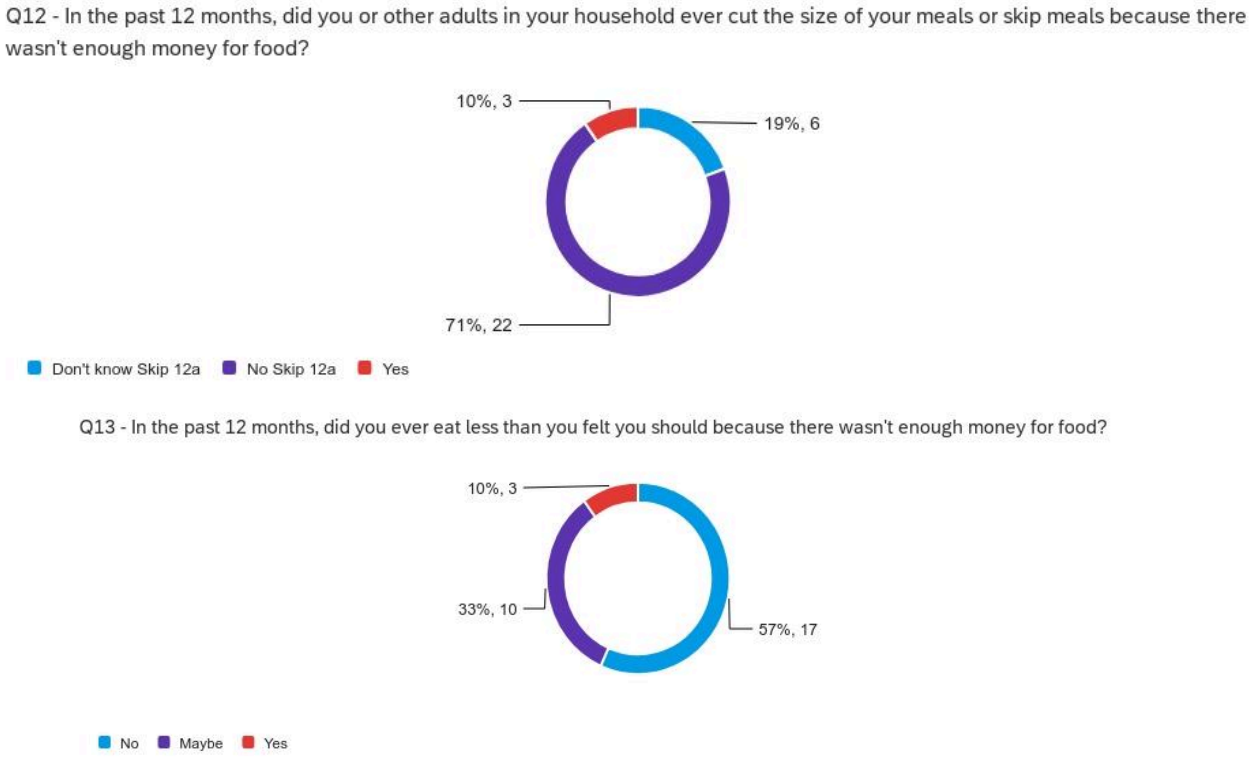


**Figure 4:** Food security outcomes (HFSSM)

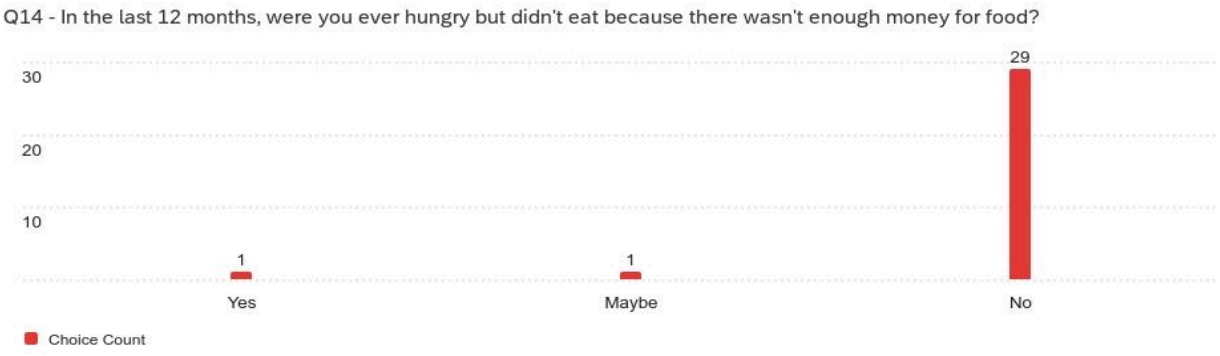


**Figure 5:** Food security outcomes (HFSSM)

## Dietary Habits: Starting the Conversations Diet

The Starting the Conversation (STC) scale results provide insight into participants' dietary behaviors and food choices. The STC dietary results indicate that community garden participants maintain moderate to healthy eating patterns, with strengths in fruit (43 %) 3-4 servings and vegetable (67%) 3-4 servings consumed daily relative to the broader food-insecure population (Appendix). For instance, many reported consuming fruits and vegetables daily, though frequency varied. In addition, the majority (57%) less than once a week eaten, reported that these fast and processed foods were not a dominant part of their diet.

At the same time, the reliance on fast food among some participants (30%) (**Figure 6**) reflects ongoing barriers to achieving optimal dietary quality. This may reflect challenges in affordability and accessibility in Newark's food environment. Taken together, the findings suggest that participation in culturally affirming gardens may encourage greater intake of fresh produce while reducing dependence on processed foods, thereby supporting both dietary improvement and community food security.

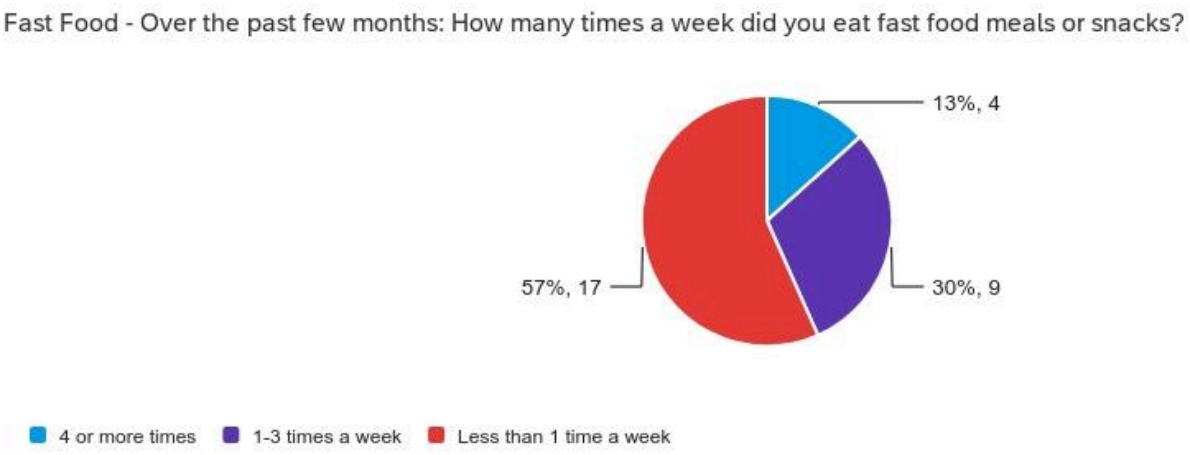


**Figure 6**: Fast food

## Community Garden Participation

Survey findings highlight how participants become connected to and engaged with Newark's community gardens. Most respondents first heard about the gardens through word of mouth, underscoring the importance of neighbors, friends, and family in promoting participation. Others became involved through community events and programs, while a smaller share reported being introduced via faith-based organizations, schools, or nonprofit partnerships. Only a few indicated learning about the gardens from flyers or social media, suggesting that personal connections and grassroots outreach remain the most effective methods of recruitment.

Participants held varied roles within the gardens. The majority identified as active members or participants engaged in planting, tending, or harvesting. A larger number reported serving as volunteers, while a limited group functioned as coordinators or leaders overseeing garden operations and community engagement.

The time of involvement varied across respondents. Some participants had been engaged for less than one year, reflecting recent recruitment and growth. Many others reported one to five years of involvement. In comparison, a core group had participated for more than five years, signaling long-term commitment and leadership within Newark's urban agriculture movement.

Frequency of visits also varied widely. Most participants reported more than once and weekly visits, while others engaged a few times per month, depending on their availability and household needs. Occasional visitors tended to come for CSA distributions, special events, or workshops, while a small group of highly engaged members, including coordinators, reported daily or near-daily visits. **(Table 2)**

| Awareness | Role in the garden | Time involved | Frequency visits |
|---|---|---|---|
| Word of Mouth - 40% | Active Plot Member- 40% | 6-12 mon. 30% | More than once weekly - 43% |
| Community Events - 30% | Volunteer, Maintain - 44% | 1-2 years, 20% | Weekly - 37% |
| Organizations 13% | Coordinator Education - 13% | 3-5 years, 23% | 1-2 months - 13% |
| Flyers, Social media 17% | Leaders - 3% | <5 years, 17% | Less than once a month - 3% |

**Table 2** Community Garden Participation

Together, these patterns of awareness, role, time, and frequency illustrate that Newark's community gardens function as multi-layered spaces: they serve as points of entry for new participants, sustained engagement for returning members, and long-term leadership opportunities for dedicated community organizers.

## Perceived Changes in Fresh Produce Intake

The majority of participants reported that their intake of fresh fruits and vegetables had increased since joining the community garden. This finding suggests that direct engagement in food production not only improves access to produce but also encourages greater consumption of it.

Among those who indicated an increase, (73%) participants described their dietary change in terms of both frequency (e.g., adding fruits and vegetables to more meals per week) and variety (e.g., trying new culturally familiar crops grown in the garden). These responses highlight that community gardens influence not just the amount of produce consumed but also the diversity of foods incorporated into daily meals. A smaller portion of respondents (20%) reported no change in their intake, which may reflect prior habits of already high produce consumption, barriers such as preparation time, or household preferences. Very few, if any, reported a decrease in intake, underscoring the overwhelmingly positive impact of community garden participation on fruit and vegetable consumption **(Figure 7)**.

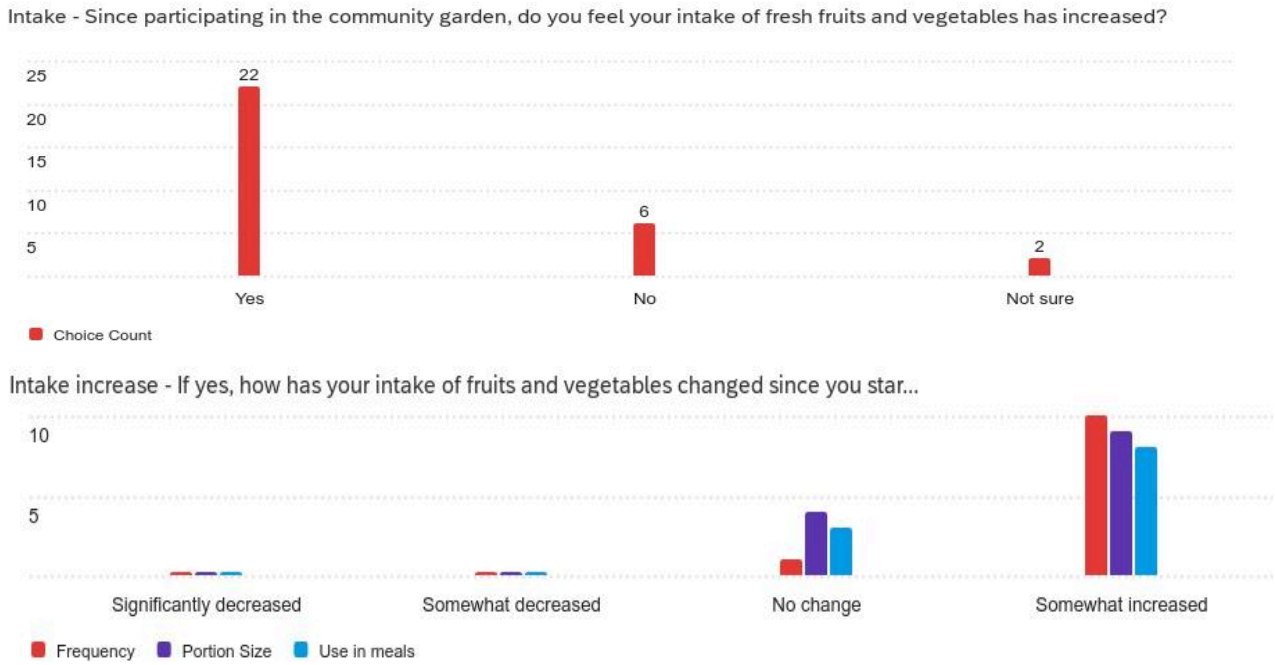


**Figure 7:** Fruit and vegetable consumption

These results suggest that participation in culturally affirming community gardens is associated with positive dietary shifts, particularly in increased consumption of fresh, locally grown produce. The data reinforce the role of gardens as more than food access points; they are catalysts for healthier eating behaviors and exposure to culturally relevant foods that may otherwise be unavailable or unaffordable in Newark's food environment.

## Cultural Affirmation and Relevance

These items measured cultural affirmation and relevance in the gardens. Participants were asked how their cultural identity and traditions influence their food choices and experiences. It aims to understand what culturally meaningful and relevant food access looks like in their community gardens and if they provide access to culturally familiar foods and reflect their heritage, traditions, and preferences from strongly agree to disagree (**Table 3**).

| Survey Questions | Dietary outcome | Food Security outcome | Cultural/Social outcome |
|---|---|---|---|
| Access to culturally familiar foods | Increased fruit/vegetable intake; supports diet diversity | Reduces reliance on costly/limited store-bought cultural foods | |
| Gardens reflect food traditions/heritage | Encourages the use of traditional foods in daily meals | Enhances food autonomy within households | Preserves cultural traditions and heritage |
| Ability to prepare traditional meals with garden foods | Improves dietary adherence to culturally meaningful practices | Increases stability of access to meaningful food items | Strengthens intergenerational knowledge transfer |
| Opportunity to try new culturally relevant crops | Expands the variety of produce consumed | Improves the affordability of diverse produce | Promotes cross-cultural engagement |
| Sharing/learning cultural food practices in the garden | | | Builds social ties through shared cultural practices |
| Gardens support cultural identity and belonging | | | Fosters belonging, empowerment, and community identity |

**Table 3** Cultural Affirmation & Relevance Outcomes Matrix

## How the Data Reflects Outcomes:

- **Dietary Outcomes**

If most participants report access to foods that reflect their cultural traditions, this shows that gardens help promote dietary diversity and make it easier for families to include fresh produce in traditional meals. Eating more culturally relevant crops may also lead to higher overall fruit and vegetable intake, connecting these foods to healthier eating habits.

- **Food Security Outcomes**

Culturally relevant foods often command higher prices or limited availability in mainstream supermarkets. The fact that participants can grow or access these items in community gardens reduces dependence on external markets and lowers cost barriers. This access supports food autonomy, making households less vulnerable to fluctuations in food prices or limited availability.

- **Cultural and Social Outcomes**

Positive responses to these items show that gardens are not just about food; they are cultural hubs where identity and heritage are preserved. This fosters social cohesion: sharing recipes, exchanging seeds, and cooking together build community resilience, which is an indirect but important outcome of food security.

Taken together, the responses to cultural affirmation and relevance demonstrate that Newark's community gardens are functioning as culturally affirming food spaces. The outcome is twofold: they improve access to healthy foods while also strengthening cultural identity and community ties (Meenar & Hoover, 2012). This dual benefit sets culturally affirming gardens apart from traditional food assistance programs, demonstrating that they contribute not only to food security but also to cultural sustainability and social empowerment.

## Perceived Impact

Participants were asked since their participation in the community gardens how has it influenced their lives beyond just food access **(Figure 8).** Responses suggest that 66% of participants view community gardens as having a multidimensional impact on their lives and communities. Many respondents reported positive outcomes in areas such as:

- **Food Access and Diet** – Participants perceived that gardens improved their ability to obtain fresh produce and increased their intake of fruits and vegetables.
- **Health and Well-being** – Engagement with gardens was associated with healthier eating habits and increased awareness of nutrition.
- **Community and Social Ties** – Respondents highlighted the role of gardens in fostering social connections, creating opportunities to interact with neighbors, and strengthening community bonds.
- **Cultural Relevance** – For some, gardens reinforced cultural food practices by providing access to familiar crops and opportunities to share traditions.
- **Education and Skills** – Participants noted learning new gardening, cooking, and sustainability practices through workshops and hands-on activities.

Many participants affirmed that the gardens provide opportunities to grow and obtain crops that reflect their cultural backgrounds, foods that are often scarce or expensive. From a cultural lens, they are also serving as critical cultural anchors, ensuring that dietary change is sustainable because it is rooted in tradition and identity.

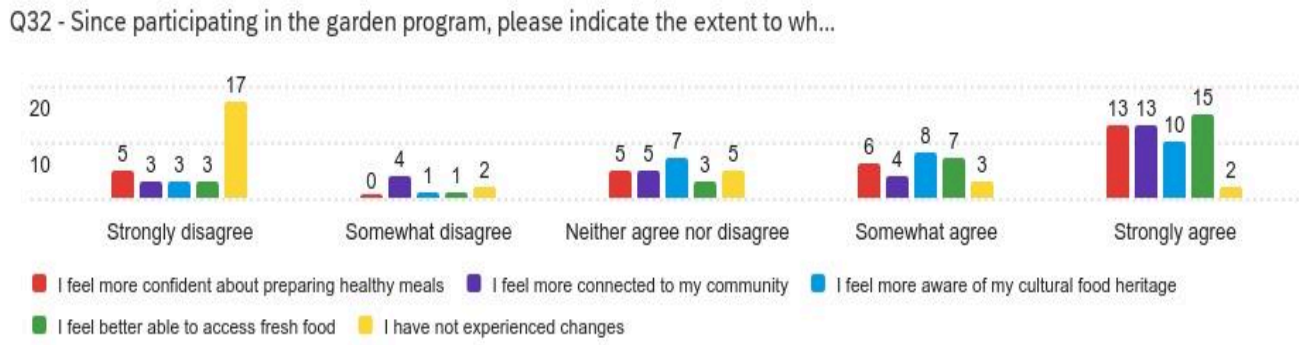


**Figure 8:** Perceived impact garden participation

Open-ended questions that ask participants to reflect further (e.g., about challenges, suggestions, or other experiences with community gardens) are as follows:

## Q33-Do you grow any foods in the community garden that are important to your culture?

**Themes from responses:**

- **African American cultural staples:** collards, kale, okra, watermelon, foods tied to family traditions and childhood experiences.
- **Caribbean heritage foods:** callaloo, scotch bonnet peppers, jute leaves (lalo), pumpkins, cilantro; foods linked to Jamaican and West African roots, often grown from seeds passed through families.
- **Personal/family dishes:** eggplant, tomatoes, peppers, potatoes, chosen because they are central to favorite meals or culturally specific dishes like Gullah rice.
- **Health-first perspectives:** some participants emphasized growing what is healthy, regardless of cultural origin.

This data highlights many participants actively growing crops tied to their cultural identity, linking gardening directly to family traditions, immigrant heritage, and intergenerational food practices. These choices reinforce the idea that community gardens are not only nutritional spaces but also cultural preservation sites, allowing residents to maintain continuity with their heritage while addressing dietary needs.

## Q34-Have you noticed other gardeners growing foods that are culturally important to them?

**Themes from responses:**

- **Observation of cultural diversity:** respondents noticed African, Caribbean, and Haitian gardeners cultivating crops from their homelands (e.g., callaloo, bitter melon, culantro, jute leaves, and scotch bonnet peppers).
- **Collard greens as a shared cultural anchor:** frequently mentioned as central in African American foodways and a symbol of “rootedness in Blackness.”

- **Cross-cultural learning:** some participants described seeing new crops (e.g., tomatillos, cilantro, kaya, bitter melon) and learning how they are used in traditional dishes.

- **Community pride:** gardeners emphasized the value of seeing cultural representation in the garden and the empowerment of sharing traditions across groups.

Responses illustrate that Newark's gardens foster visible cultural diversity, where residents not only cultivate foods meaningful to themselves but also notice and appreciate the cultural crops grown by others. This process creates opportunities for cross-cultural exchange, learning, and solidarity, strengthening gardens as inclusive community spaces.

## Q35-Most consumed fruits and vegetables, and why?

Another open-ended item connects research findings back to actual dietary behaviors tied to garden access. Many responses revealed that participants most frequently consume staple vegetables such as collard greens, curly/dino kale, tomatoes, green, hot, sweet peppers, cucumbers, herbs, and okra, with fruits like watermelon and melons also mentioned (**Figure 9)**. The reasons participants gave for consuming these foods fell into three main themes:

### Cultural Familiarity and Tradition

- Many respondents emphasized consuming crops tied to their family heritage or cultural background (e.g., collards and kale in African American traditions, okra and callaloo in West African and Caribbean traditions). These foods were described as "important to my culture" or "foods I grew up eating," showing how gardens reinforce cultural identity.

### Taste, Freshness, and Availability

- Respondents consistently noted that garden produce "tastes better" and is "fresher" than store-bought options. The ability to harvest directly from the garden made participants more likely to eat these foods frequently.

**Health and Nutrition**

- Some participants reported consuming certain vegetables “because they are healthy” or “nutritious for my family.” Kale, collards, and other leafy greens were especially valued for their perceived health benefits.

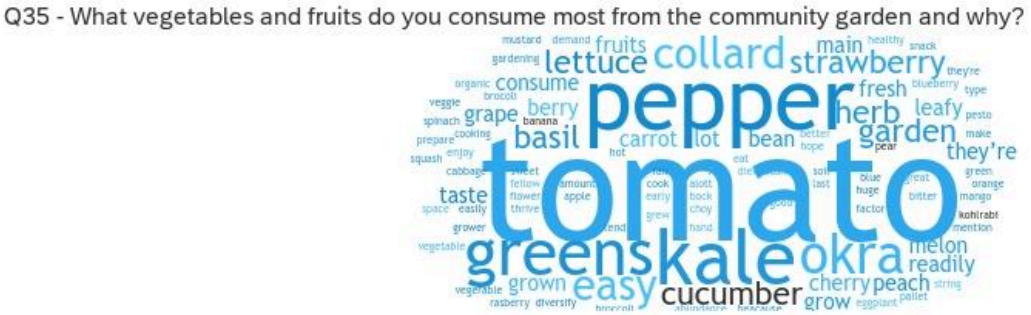


**Figure 9**

# Interview Summaries

## Interviewee: Tobias Fox, The Garden of Hope, Newark Science and Sustainability Inc.

The Garden of Hope, led by Tobias Fox, represents a model of urban agriculture rooted in cultural affirmation, collective care, and community empowerment. As the founder and managing director of Newark Science and Sustainability Inc., Fox envisions the garden not only as a place for food production but also as a vehicle for education, cross-cultural exchange, and nourishment in the fullest sense.

A central theme in Fox's approach is the intentional exposure to culturally diverse and previously unfamiliar foods. Reflecting on his own dietary shift from Southern comfort foods to less familiar crops such as swiss chard and ground cherries, he emphasizes the garden's role in expanding participants' palates and knowledge. Through cooking demonstrations and recipe sharing, the Garden of Hope fosters deeper food literacy and culinary curiosity.

He defines cultural food significance as "subjective and community-led", avoiding rigid classifications. Rather than prescribing which foods are "culturally relevant," he encourages participants to define those meanings for themselves. For example, crops like okra, eggplant, and turnips resonate differently across Newark's culturally diverse population. This flexibility reflects an adaptive and inclusive framework, allowing food traditions to organically emerge from within the community.

The Garden of Hope departs from traditional gardening models by rejecting individual plot assignments. Instead, it operates under a system of shared responsibility, where all participants contribute to the success and maintenance of the space. This communal structure mirrors the interdependent culture of Fox's upbringing and supports a sense of collective ownership and care since it functions as a hub for intercultural dialogue. His experience with community-based agriculture in Africa, Latin America, and Southeast Asia informs the inclusive design and programming at the Garden of Hope. Collaborators and participants come from across Newark and beyond, creating a space where diverse foodways are explored and respected.

Fox distinguishes between feeding and nourishment, arguing that food justice must go beyond calorie counts to include the restoration of people's relationships with food, land, culture, and community. The farm distributes subsidized CSA shares and offers

value-added products like beet ketchup and herbal tinctures, which support health and well-being on multiple levels.

Despite its success, the Garden of Hope faces critical infrastructure challenges, including a lack of access to water, electricity, and investment. These limitations restrict the garden's ability to scale up production and expand programming. Fox stresses the need for long-term financial support and citywide investment in infrastructure to unlock the full potential of Newark's urban agriculture landscape.

## Interviewee: Melissa Leuthner, Norwood Healthy Haven, Newark NJ

Melissa describes her garden as both a personal sanctuary and a community learning space. Rooted in her passion for permaculture and plant propagation, her work extends from home gardening into a larger commitment at the Norwood community garden, which she has been involved with since 2010 and more actively managed over the past two years.

She emphasizes that her garden is not solely about food production. While seasonal crops and herbs are grown for consumption, she frames the space as primarily a learning environment, a place for science education, hands-on plant propagation, and community discovery. She often sees the garden as "all-encompassing," blending food, aesthetics, education, and sanctuary.

Participation at Norwood has increased since partnering with the Greater Newark Conservancy and the Plot-it Fresh program, which assigns beds to community members. Of the 25 beds, about half are actively cultivated. Gardeners are motivated by the opportunity to grow their own food with free supplies, connect with neighbors, and experience community life. Melissa notes that food choices are visibly impacted; for example, gardeners proudly harvest crops like zucchini, basil, and tomatoes, and families incorporate these foods directly into their meals. Sharing knowledge and observing each other's beds also fosters curiosity and experimentation.

Barriers remain, especially around water access. A slow, unreliable cistern and the breakdown of the city's water truck delivery system have made sustaining crops difficult. Melissa sees this as a critical issue that affects participation, as watering becomes too time-consuming and discouraging for many. Location is another barrier, since the garden is tucked away on a long block and not widely visible, though she describes it as a "little gem" for those who discover it. She also observes that some neighbors may perceive gardening as laborious; she hopes that integrating more fun, culturally engaging activities music, food, juice-making, or seasonal celebrations could shift perceptions from work to joy.

Melissa defines culturally relevant foods as those tied to memory, ancestry, and identity: “foods that bring you back to childhood, that make you smile.” Growing up in the Caribbean, she recalls a culture where nearly every household grew food or had fruit trees, even if not everyone was a farmer. She views cultivating such foods as essential to preserving identity and grounding people in their heritage. In the garden, she sees crops like okra, sweet potatoes, Scotch bonnet peppers, cucumbers, and alligator peppers as culturally affirming, often grown by Haitian and Kenyan participants who bring their own seeds, traditions, and names for plants into the space.

Community gardens, Melissa explains, do meet local needs but primarily at the household level. Gardeners mostly grow for their families, occasionally sharing with neighbors, but the model has not yet expanded to serve broader food insecurity through donations or pantries. Still, the pride, photos, and stories exchanged by gardeners demonstrate a shift toward healthier eating and deeper investment in fresh produce.

Collaborations and support have come from Prudential Foundation, United Vailsburg Service Organization (UVSO), Rutgers University, NJIT, Seton Hall, and Keep Newark Beautiful, often through grants, volunteer groups, and cleanup efforts. While some programming focuses on beautification and education, Melissa envisions expanding the garden into a more interactive outdoor classroom. When asked to describe Norwood Garden in one phrase, Melissa called it “booming with diversity”, a place where gardeners, plants, insects, birds, and cultural traditions all coexist. Ultimately, she hopes the garden continues to offer a sense of peace, beauty, and belonging while inspiring people to fight for and protect nature. For her, gardening is not just cultivation, but a way to create sanctuary and preserve cultural identity through plants.

## Interviewee: Kevin Porter, Rabbit Hole Farm, Newark NJ

Kevin Porter is Co-founder and Director of Rabbit Hole Farm in Newark, New Jersey. Rabbit Hole Farm is a community-based urban agriculture site that has evolved from a traditional urban farm into a holistic space centered on healing, cultural preservation, and environmental education. Porter emphasized the importance of culturally relevant foodways in strengthening identity and improving health outcomes for immigrant and historically marginalized communities.

His garden serves participants from many countries, including Haiti, Kenya, Guyana, and the Dominican Republic grow crops that reflect their culinary and medicinal traditions, such as blue and yellow corn, leaf of life, bitter melon, okra, comfrey, and pumpkin leaves. These culturally significant foods are often unavailable in mainstream grocery stores, particularly in low-income urban neighborhoods, but they are readily

exchanged, cultivated, and celebrated within the farm's communal framework. By providing growing space and encouraging cultural expression through food, Rabbit Hole Farm fosters a sense of belonging and supports healthier eating habits among its participants.

In addition to crop production, Rabbit Hole Farm functions as a sensory and therapeutic environment. The site hosts indigenous sweat lodge ceremonies, yoga, drumming, communal harvesting, and cooking demonstrations, many of which are open to residents without garden plots. These practices help bridge generational and cultural gaps while addressing mental health and social isolation. The farm's shift from solely producing food to cultivating a healing-centered space has been essential to its success in engaging diverse community members.

He highlighted the farm's role in buffering against food insecurity, particularly during the COVID-19 pandemic, when volunteers sought out the space for both nourishment and solace. Porter noted that during times of economic instability, the community model of shared work and food preparation becomes critical. "Community supports itself," he stated, referencing the resurgence of interest in cooking, bartering, and mutual aid during hardship.

Rabbit Hole Farm receives support from local organizations and municipal agencies, including Whole Cities and the City of Newark. Porter advocates for greater integration of agriculture into public education, stressing the importance of environmental and food literacy among youth. He calls for structural change, specifically, for every school in Newark to be paired with a community-based farm or garden that reflects and serves its neighborhood. Overall, Rabbit Hole Farm exemplifies how community gardens can function as culturally affirming spaces that nourish, heal, and empower local communities.

## Interviewee: Charmaine La Fortune, Giving One Tenth, Newark NJ

Charmaine La Fortune, Founder and Director of Giving One Tenth Community Garden in Newark's South Ward, has led the transformation of an abandoned dumping ground into a vibrant community space over the past eight years. Originally an adopted lot, the garden is now owned property, designed with paved pathways, a cathedral shelter, and raised beds to ensure accessibility. The garden serves multiple purposes: local food production, donation, wellness programming, and fostering cultural connections, while challenging negative perceptions of the neighborhood. During the COVID-19 pandemic, the garden became a much-needed refuge, drawing residents for gardening,

workshops, and social activities. While participation has declined post-pandemic, She is exploring new engagement strategies to remain a visible and vital resource.

Central to the garden's mission is its food programming, particularly "Free Food Fridays," where freshly harvested produce is placed outside for anyone to take. This initiative introduces residents to the benefits of fresh, organic produce compared to store-bought options. Cooking demonstrations are tailored to reflect the cultural backgrounds of the community, primarily African, West Indian, and Hispanic, reinforcing food as a "love language" and a link to heritage. She grows culturally relevant crops such as bitter melon, long beans, eggplant, beets, kale, and a hard-pod Indian bean known as "fame," with many seeds brought by residents from their home countries. Workshops also teach food preservation to extend the harvest season.

Participation in the garden has influenced residents' diets by encouraging them to try new foods, adopt healthier cooking practices such as seasoning with herbs instead of salt, and make more informed choices when shopping. The garden serves a culturally diverse population, including St. Lucian, Ghanaian, Trinidadian, Barbadian, Nigerian, Salvadoran, Mexican, Asian, and American residents. Youth engagement is a priority, with efforts to teach children where food comes from and how it is grown.

While community engagement remains a challenge, Charmaine uses social media, on-site surveys, and QR code feedback forms to gather input. She also tracks donated produce weights to measure impact for grant reporting. Partnerships with Greater Newark Conservancy, Beth Israel Medical Center, and local farms have been instrumental in supporting the garden through donations, workshops, and infrastructure improvements funded by grants such as those from Whole Cities. These resources have enabled the installation of pathways, a greenhouse, and additional raised beds.

Looking ahead, Charmaine envisions expanding the garden with 20 new communal beds and offering more workshops on cooking, preservation, reading, yoga, and meditation. Her goal is to build a holistic, sustainable community hub that not only provides food but also promotes food sovereignty, empowers residents to grow their own food, and amplifies their voices in shaping policy. In an era where food banks face growing challenges, she sees this expansion as essential to helping the community control its own food future.

## Interviewee: Dena Corbin, The Culture Spot, Newark NJ

The Culture Spot is a multi-functional community garden located at the corner of Hawthorne and Chadwick Avenue in Newark. Managed collaboratively, with Dena

Corbin serving in a stewardship role, the garden functions as both an aesthetically designed space and a site for localized food production and wellness-based community engagement. The garden includes ten raised beds, with several assigned to individual community members and others managed by committees, including a teaching garden and a vegetable committee plot. Five additional beds are part of the “Plot-It-Fresh” program, administered by the Greater Newark Conservancy. The space also features native pollinator habitats, artistic elements, including a brick walkway by a Newark artist, and a stage used for community events.

While food production occurs on-site, she describes the garden’s emphasis as being educational and cultural programming rather than large-scale food distribution. Produce is typically used for personal or family consumption, with surplus often shared informally by placing items in accessible locations for neighbors.

The Culture Spot hosts a variety of consistent, seasonal programs, with a kickoff on Earth Day and events running through late fall. Programming includes: Wellness Wednesdays (e.g., yoga, mindfulness, and meditation), family Saturdays (monthly), cultural events (e.g., jazz concerts, talent shows, gospel concerts), environmental education on native plants and pollinators, and children's garden classes emphasizing plant life cycles and food systems. These programs are designed to merge garden-based learning with therapeutic and cultural experiences, inviting participation from people who may not traditionally engage in garden spaces.

Dena observed that participants value the empowerment of growing their own food and sharing it with family and neighbors. Children are taught about the full food cycle from seed to harvest and how growing conditions influence nutritional quality. The garden grows culturally familiar crops such as collard greens, kale, squash, and corn. However, many community members are unfamiliar with the term “culturally relevant foods.” Dena emphasized the importance of education to contextualize this concept and highlight the medicinal, historical, and cultural value of such foods.

According to Dena, community gardens across Newark contribute uniquely to the local food system. Some distribute food boxes, others host harvest days or garden-to-table cooking events. These efforts are reshaping community access to fresh produce and teaching essential growing and harvesting skills. She noted an evolution in community engagement; more gardens now integrate meals, cooking demonstrations, and educational components into their programming. These strategies support both food literacy and increased access to culturally meaningful foods.

Dena hopes to see infrastructure improvements such as consistent water access and lighting, alongside year-round educational and wellness programming. She envisions

The Culture Spot becoming a flexible community hub where local organizations can host creative and educational workshops. Her long-term goal is to foster deeper engagement by linking environmental education, cultural expression, and food systems learning in a vibrant, inclusive outdoor setting.

## Interviewee: Bilal Walker, Al-Munir LLC, Eden Farms & Janna on Grafton, Newark NJ

Bilal Walker, CEO is a community organizer and urban farmer at Al-Munir LLC, and manages two Newark community farms: Eden's Farm in the South Ward, a historic site with more than three decades of community stewardship, and Janna on Grafton in the North Ward, transformed from a vacant lot once filled with waste into a thriving food space. Together, these farms cover over 6,500 square feet through Newark's Adopt-a-Lot Program and serve as hubs for food production, education, and neighborhood connection.

Eden's Farm builds on its long legacy but has expanded programming to include farm-to-table education, teaching residents how to prepare the culturally significant foods they harvest. Janna on Grafton has become a site of renewal for its community, where residents now see authenticity and pride in a space that was once a symbol of neglect. Participation at both farms has grown because they are Black and Brown led spaces where the people managing the farms reflect the people in the neighborhoods. Community surveys guide crop selection, and residents are drawn by free access to farming knowledge, culinary experiences, and apprenticeship opportunities. As Walker explains, "We are a farm for the people, by the people… community building as opposed to community service."

At the heart of his work is the cultivation of culturally relevant foods, which Walker defines as foods that "tell the history of community members' foodways" and act as blueprints of identity. These include scotch bonnet peppers used in Caribbean cuisines, okra, mustard and turnip greens, black-eyed peas, broadleaf cilantro, oregano, chamomile, mint, and other herbs tied to African, Caribbean, and Latino traditions. By prioritizing heritage and nutrition over profitability, Almonia Farms distinguishes itself from more conventional farm models.

Unlike traditional community gardens, where participants have individual bed assignments, Al-Munir Farms follows a service-learning model. Youth apprentices, volunteers, and neighbors engage collectively in growing, harvesting, and cooking the produce. Residents gain access to foods identified through surveys and canvassing,

creating a stronger sense of ownership. This model reframes participation from labor to empowerment and strengthens intergenerational learning by tying present practices to cultural roots.

Challenges remain, yet Walker acknowledges that both farms are located in neighborhoods often described as unsafe, which discourages some residents from visiting despite the beautification of the spaces. He also notes that while Newark has multiple urban farms, public awareness and exposure remain limited, making farming seem abstract in hyper-urban communities. Funding presents another challenge, as most support comes from private donations rather than stable grant funding, which restricts long-term growth.

Even with these obstacles, the farms are deeply connected to Newark's food system networks. Partnerships span from the Greater Newark Conservancy and Newark Community Food Systems to the Urban Agriculture Cooperative, as well as regional groups like the New Jersey Food Democracy Collaborative and Northeast Farmers of Color. These collaborations strengthen both food access and advocacy for urban agriculture.

Looking ahead, Walker envisions securing ownership of the farm properties to ensure permanence and transitioning to year-round production through greenhouses and processing facilities. He advocates for frameworks that make adopt-a-lot farming more accessible, stronger public safety partnerships to reduce barriers to participation, and investments in eco-tourism and job creation. As he emphasizes, "Vacant property is a public safety issue. Hunger is a public safety issue." His vision positions community gardens not only as sites of fresh food access but as catalysts for identity, safety, and economic resilience in Newark.

# Interview Findings

While these shared themes knit the interviews together, each leader brings a distinct lens in urban agriculture (**Table 4**).

**Tobias Fox (Garden of Hope)** emphasizes food literacy and cultural dialogue. His approach is adaptive and participant-led, refusing to narrowly define cultural foods and instead encouraging communities to shape those definitions. His distinction between feeding and nourishment reframes “food justice” as holistic well-being.

**Melissa Leuthner (Norwood Healthy Haven)** brings a permaculture and sanctuary perspective, seeing the garden as an extension of home and a peaceful space for experimentation. Her vision is for gardens as outdoor classrooms, where education and diversity bloom alongside food.

**Kevin Porter (Rabbit Hole Farm)** centers on healing and cultural preservation, embedding indigenous and spiritual practices into the garden. Rabbit Hole is as much about sensory and therapeutic experiences as it is about food, redefining agriculture as a pathway to wellness and resilience.

**Charmaine La Fortune (Giving One Tenth)** focuses on access and sovereignty, using initiatives like “Free Food Fridays” and culturally tailored cooking demonstrations to meet immediate needs while also teaching preservation and advocating for long-term control of food systems.

**Dena Corbin (The Culture Spot)** emphasizes wellness and cultural programming, merging food access with music, art, yoga, and environmental education to engage broader audiences who might not otherwise see themselves in gardening spaces.

**Bilal Walker (Al-Munir Farms, LLC)** highlights systemic transformation, situating urban agriculture within issues of safety, property ownership, and economic resilience. His framing of gardens as solutions to both hunger and public safety signals a broader political and structural vision.

A clear theme across all interviews is that Newark’s community gardens are not just about producing food; they are cultural, educational, and healing spaces. Each interviewee frames their work as a way to affirm cultural identity while expanding access to healthy, fresh food. Culturally relevant crops such as okra, Scotch bonnet peppers, bitter melon, and sweet potatoes reappear across gardens, serving as anchors of memory, heritage, and identity. As Melissa explains, these are “foods that bring you back to childhood, that make you smile.” Similarly, Bilal describes them as “blueprints of

identity," and Kevin highlights their power in sustaining immigrant communities' traditions.

Another recurring theme is the shift from individual consumption toward collective engagement and empowerment. Tobias Fox's Garden of Hope rejects individual bed assignments in favor of shared responsibility, echoing Bilal Walker's service-learning model that emphasizes community building over community service. Kevin Porter extends this model by creating a healing-centered environment with sweat lodge ceremonies, drumming, and yoga, while Dena Corbin's Culture Spot integrates jazz concerts, wellness events, and children's programming. These practices reframe gardens as multifunctional community hubs where culture, food, and wellness intersect.

All interviewees agree that culturally affirming foods are vital for both dietary shifts and cultural preservation, but they also see gardens as tools for sparking curiosity, building confidence, and reshaping relationships with land and food.

| Community Garden | Primary Purpose/ Identity | Distinct Attributes | Programs | Organizational Model |
|---|---|---|---|---|
| Garden of Hope **(Tobias Fox)** | Urban farm & education hub | CSA model, environmental education, culturally relevant food | Workshops, conferences, volunteer days | Nonprofit headquarters |
| Norwood Haven **(Melissa Leuthner)** | Healing & environmental education | Women-centered wellness, sensory design, native plants, meditation spaces | Mindfulness workshops, healing circles, nature education | Grassroots/ community-led |
| Rabbit Hole Farm **(Kevin Porter)** | Healing & cultural reconnection | Medicinal/ healing plants, sweat lodges, sensory spaces | Drumming/art Communal harvesting, yoga, cultural ceremonies | Community collective |
| Giving One Tenth **(Charmaine La Fortune)** | Community building & food access | Adopt-a-Lot transition to land ownership, African American food traditions | Cooking demos, health workshops | Nonprofit/ community owned |
| The Culture Spot **(Dena Corbin)** | Culinary & cultural expression | Combines food, art, and cultural storytelling; supports local entrepreneurs | Cooking classes, cultural events, pop-ups | Community-based cultural nonprofit |
| Eden's Farm **(Bilal Walker, Al-Munir, LLC)** | Food production & cultural preservation | Grows culturally relevant crops (okra, collards, bok choy); youth engagement | CSA boxes, taste tests, culinary apprenticeship | Nonprofit-led Adopt-a-Lot |
| Jannah on Grafton **(Bilal Walker, Al-Munir)** | Community empowerment & faith-based nonprofit | Organic practices, culturally affirming crops, intergenerational knowledge | Farm-to-table dinners, food justice workshops | Faith-based nonprofit |

**Table 4**: Attributes of Newark Community Gardens Based on Interviews

# Discussion

This research project examined how culturally affirming community gardens influence dietary habits and food security outcomes in Newark, New Jersey. The findings reveal that Newark's gardens are more than sites of food production; they are cultural, educational, and social, spaces that holistically contributes to both individual and community well-being.

Some limitations were the participant population size which was small for the garden operators and gardeners, considering there are many community gardens. The demographic profile reflected Newark's diversity across wards, age, gender, race, income, and education based on the survey population. This diversity underscores that community gardens serve as intergenerational and multicultural spaces for cultural exchange and engagement.

While concerns about food adequacy were common, nearly half reported worry about food running out. In contrast, severe food insecurity (such as chronic hunger or weight loss) was experienced by only a small minority based on the USDA Household Food Security Measurement Scale (HFSSM). This suggests that community gardens may buffer against the most extreme outcomes of food insecurity.

Dietary findings were equally significant. Most respondents reported increased fruit and vegetable intake since joining a garden, with improvements in both frequency of fruits, vegetables and variety. Participants also reported reduced reliance on fast and processed foods compared to broader food-insecure populations, though affordability and access barriers remain. The results suggest that gardens not only expand access to fresh produce but also encourage healthier eating behaviors, particularly by making culturally relevant crops available.

Survey and interview data show that cultural affirmation emerged as a central theme. Community gardens are growing culturally significant foods that serve as anchors of cultural identity, foodways, and heritage while simultaneously supporting nutrition. Gardens also function as community hubs, offering medicinal herbs, educational programs, and cultural events that reinforce social cohesion.

The data suggests that culturally affirming gardens contribute to both dietary improvement and food security while simultaneously preserving cultural identity and strengthening community resilience. While the small sample size limits the ability to generalize, the mixed methods "survey and interview findings" provides strong qualitative support for these conclusions.

# Recommendations

This capstone set out to explore whether culturally affirming community gardens in Newark influence diet and food security outcomes. The data support this goal by showing that these gardens increase fruit and vegetable intake, reduce food insecurity risks, and preserve cultural identity.

**School Community Gardens**

Collaborating with schools across Newark to establish garden programs can provide youth with hands-on experiences in cultivating fresh foods while promoting culturally relevant crops and recipes through tastings. These programs not only expose students to gardening in their own communities but also encourage healthier eating habits by increasing fruit and vegetable intake and fostering appreciation for diverse food traditions. The FoodCorps framework, which emphasizes garden-based education, healthy school meals, and cultivating a culture of health, offers a valuable model for how Newark schools can integrate community gardens into their curricula. Greater Newark Conservancys' partnership with FoodCorps brings dedicated service members into Newark school to teach kids about nutritious food through gardening, cooking, and hands-on lessons. These leaders inspire a love for nutritious food while helping students connect to community resources and sustainable practices. By aligning with this mission, school garden partnerships can simultaneously strengthen nutrition education, reinforce cultural food identity, and build pathways to healthier, more resilient communities (FoodCorps, n.d.).

**Apprenticeships & Workforce Green Pathways**

Community gardens create opportunities in Newark's urban neighborhoods for the transfer of agricultural skills and knowledge, particularly in distressed wards such as the South and West, where poverty rates are highest. By offering apprenticeships and hands-on training, community gardens provide youth with exposure to sustainable practices and entrepreneurial skills that can lead to indirect employment opportunities. The success of the Rooted in Da Foodture apprenticeship pilot at West Side High School illustrates how such initiatives can engage students in real-world food system work,from cultivating culturally relevant crops to supporting CSA packaging and culinary tastings, while fostering leadership and career readiness. Expanding on this model, Newark schools and community partners could adopt elements of the FoodCorps framework, which emphasizes garden-based education, healthy food access, and cultivating a culture of health (FoodCorps, n.d.). Together, these approaches can establish a robust pipeline to green careers in urban agriculture, equipping the next

generation of farmers and environmental stewards with the tools to advance both community well-being and Newark's long-term sustainability goals.

**Public Health and Nutrition Programs**

Several Adopt-a-Lot gardens, such as Giving One Tenth, have partnered with hospitals like Newark Beth Medical, a Robert Wood Johnson Barnabas Health facility, aligning with wellness departments to position gardens as preventive health strategies. Expanding such collaborations could strengthen the role of gardens in public health by hosting wellness events around nutrition month or heart health awareness programs that provide screenings, education, and resources to reduce diet-related diseases. Given the positive dietary outcomes documented in this study, community gardens can serve as valuable partners in advancing Newark's health and wellness goals.

**Policy & Infrastructure Support**

The Adopt-a-Lot program demonstrates the potential of municipal partnerships in advancing food access and community resilience. However, one of the most consistent challenges reported by garden operators is water scarcity due to water access and limited rainfall resulting in empty rain barrels. This limitations negatively impact crop productivity and can undermine the long-term success of food production initiatives. There is a need for coordinated policy approaches to overcome these existing obstacles. The Newark Office of Sustainability can play a critical role in strengthening relationships between municipal government and local garden leaders by expanding reliable water access and developing policies that address this barrier. Furthermore, ensuring stable land tenure which often competes with increasing developments for Adopt-a-Lot sites requires funding support for the purchase of land. This support would enable community gardens to scale their impact and significantly improve Newark's food justice and sustainability agenda.

# Conclusion

This study demonstrates that culturally affirming community gardens in Newark are vital spaces for improving dietary habits, strengthening food security, and preserving cultural identity. Survey results revealed that participation in gardens increased fruit and vegetable consumption, reduced reliance on processed foods, and provided access to culturally significant crops such as collards, okra, and callaloo. Interviews reinforced these findings, showing how gardens function as hubs of cultural preservation, community resilience, and intergenerational knowledge-sharing.

Other research supports this dual role of gardens in food justice and cultural affirmation. Scholars note the growing interest in urban agriculture as a representation of ethnic identity (Meenar & Hoover, 2012) and emphasize that cultivating culturally affirming crops empowers gardeners to act as leaders within their local food systems while associating foods that reflect heritage, identity, and flavor to foster solidarity with one another (Zail, 2023). The findings of this study align with these insights and further demonstrate that Newark's gardens not only improve dietary intake and food security but also serve as cultural anchors that strengthen social ties and community resilience.

At the same time, the challenges identified particularly water scarcity, land tenure insecurity, and limited infrastructure reflect statewide patterns documented in Rutgers' Urban Agriculture Strategies for the state of New Jersey, which calls for policy support, resource investment, and training to sustain urban agriculture (Rutgers Office of Urban Extension & Engagement, 2022). Taken together, this study and broader scholarship highlight the need for an integrated approach that combines infrastructure and policy support with intentional cultural affirmation, positioning community gardens as both nutritional interventions and cultural preservation tools within equitable urban food systems.

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# Appendices

## Appendix A: Survey promotion direct email

My [NAME] is, and I am a Master's candidate under the direction of Christopher Watson, Arizona State University. I am conducting a research study to explore how culturally affirming community garden programs influence diet and food security in low-income neighborhoods, specifically Newark, NJ.

I invite you to participate in this study by completing a one-time online survey. Your insights as a community gardener, volunteer, organizer, or recipient of food from a community garden will help inform how these spaces support health, cultural identity, and access to nutritious food.

The survey takes approximately 15 minutes to complete. It includes multiple-choice, rating, and open-ended questions about your experiences with accessibility and the use of garden space in Newark's community gardens. Topics include your level and type of participation, the foods grown, and whether foods have cultural significance. You must be 18 years of age or older to participate. Participation is voluntary, and you may skip any question or stop at any time without penalty. For your participation, you will be eligible to receive one Community Supported Agriculture CSA box of seasonal produce from community gardens distributed equitably in collaboration with garden coordinators.

Your responses will be confidential and reported in a way that does not identify you personally (e.g., "One respondent shared..."). No names or contact information will be associated with your answers..

If you are willing to participate in this research, which will help elevate community voices in food systems research, support equitable, culturally relevant garden programs, and inform future policy, programs, and funding that can improve access to healthy food, please review the attached consent form.

If you have any questions about the research or your participation, feel free to contact me at [email]

Thank you in advance for your time and contributions to this important work.

Warm regards,
[NAME] Swette Center for Sustainable Food Systems, Arizona State University

# Appendix B: Community Garden Eligibility Screening Survey

**Purpose**: To determine if you are eligible to participate in our study about community gardens, culture, and food access in Newark, NJ.

This brief screening survey is designed to determine whether you are eligible to participate in a research study exploring how **culturally affirming community garden programs impact dietary habits and food security in low-income neighborhoods**. The study is being conducted by a graduate student at Arizona State University in partnership with community gardens across Newark, NJ. By answering a few short questions, you will help us identify whether this study is a good fit for your experience. If eligible, you may be invited to complete a 15-minute online survey or participate in a one-time interview. Your responses will be confidential and reported in a way that does not identify you personally.

**1. Are you 18 years of age or older?**

Yes

No *(If "No," participant is not eligible)*

**2. Do you currently live in or regularly participate in a community garden located in Newark, NJ?**

Yes

No *(If "No," participant is not eligible)*

**3. How are you involved in the community garden? (Check all that**

**apply.)** I own or manage the garden

I volunteer at the garden

I grow food or tend a plot in the garden

I receive food or services from the garden (e.g., produce, workshops)

I attend events or programs at the garden

I am not involved with any garden *(If selected alone, participant is not eligible)*

**5. Would you be interested in participating in:** (Select one)

A one-time 15-minute online survey for garden participants

A 30–60 minute interview (in person or Zoom) for garden/lot owners

I am not interested in participating

# Appendix C: Survey Consent Form

**Consent to take part in the Survey**

Title of Study: **How culturally affirming community gardens impact diet and food security in low-income communities (Newark).**

**Invitation to Participate**

I am a Master's candidate at Arizona State University in the Swette Center for Sustainable Food Systems. I am conducting this research under the guidance of Christopher Wharton, Professor of Nutrition, at Arizona State University, College of Health Solutions. You are invited to participate in a study exploring how culturally affirming community gardens influence diet and food security in low-income neighborhoods. This research is part of my graduate studies and is being conducted in collaboration with community gardeners, volunteers, and participants at selected community garden sites throughout Newark.

Your participation will involve completing a one-time online questionnaire that includes a combination of open-ended and multiple-choice questions. The survey will take approximately 15 minutes to complete. The questions will focus on your experiences, perceptions, and behaviors related to community gardening, food access, and cultural identity. You may skip any question or stop participating at any time.

Participation in this study is completely voluntary. You must be 18 years of age or older to participate. Choosing not to participate or withdrawing at any point will involve no penalty or loss of benefits. For your participation, you will receive Community Supported Agriculture (CSA) boxes made available from the gardens' harvest by lot owners. These boxes will be distributed equitably in collaboration with garden coordinators.

There are no foreseeable risks or discomforts associated with participating in this study. While there are no direct benefits to you personally, your input will contribute to a better understanding of the role of culturally affirming garden programs in supporting healthy diets and improving food access in Newark communities.

**Confidentiality and Data Protection**

- Your responses will be kept confidential to the extent permitted by law. Although survey software may temporarily collect IP addresses, that data will be deleted and not stored. Your survey responses will be downloaded into a secure, password-protected file accessible only to the research team.

- All identifying information will be removed before your responses are shared or published. De-identified data may be stored in a public data repository (e.g., Open Science Framework) for up to five years to support further academic research. No data that could identify you will ever be made public without your explicit consent.

- Quotes or insights may appear in research reports or presentations, but will be presented in a way that does not identify you (e.g., “One participant shared…”).

If you have any questions about this study or your participation, please contact:

Christopher Wharton, Professor of Nutrition
Arizona State University, College of Health Solutions
cwharton@asu.edu | chs.asu.edu

[Candidate NAME], ASU Graduate Student
Arizona State University, Swette Center for Sustainable Food Systems
[EMAIL]

If you have any questions about your rights as a participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board through the ASU Office of Research Integrity and Assurance at (480) 965-6788. Please inform us if you wish to be part of the study.

**Consent Statement:**

By checking the “agree” box below, and returning this consent form, you agree to participate in the study.

☐ I agree to take part in the study.

Return of the study is considered consent.

Date:_____

# Appendix D: Survey

**Culturally Affirming Community Gardens Survey**

**Informed Consent section-Voluntary Participation**

You are invited to participate in a research survey about your experiences in a community garden program. Your responses are confidential and will only be used for educational purposes. You may skip any questions or stop at any time. By clicking "Next" or continuing, you consent to participate.

**Section 1: Demographics**

1. What is your age?
   - ☐ 18–24
   - ☐ 25–34
   - ☐ 35–44
   - ☐ 45–54
   - ☐ 55+

2. What is your gender identity?
   - ☐ Female
   - ☐ Male
   - ☐ Non-binary
   - ☐ Prefer not to say
   - ☐ Other: _____

3. What is the highest level of education you completed?
   - ☐Some high school/G.E.D.
   - ☐High school
   - ☐Some college
   - ☐Bachelors Degree
   - ☐ Master's Degree or above

4. How do you identify your race/ethnicity? (Check all that apply.) ☐ Black/African American
   ☐ Hispanic/Latino/a/x, including Mexican American, Central American, & others
   ☐ Asian/Asian American, including Chinese, Japanese, and others ☐ Middle Eastern/Arab
   ☐ American Indian/Native American

☐ Pacific Islander
☐ White/Caucasian, Anglo, European American, not Hispanic
☐ Other: _____

5. Select the category that includes your household income.
☐Under $15,000
☐ $15,000-$25,000
☐ $25,001-$35,000
☐ $35,001-$50,000
☐ $50,001-$75,000
☐ $75,001-$100,000
☐ $100,001-$150,000

6. What is your relationship status?
☐ Single
☐ In a relationship
☐ Married
☐ Widowed
☐ Divorced
☐ Separated

7. Do you have children who live in your home?
☐ Yes, full-time
☐ Yes, some of the time
☐ No, never

8. What is your zip code? _____
9. What ward do you reside in? _____

**Section 2. Food Security Measurement: USDA Household Food Security Survey Module (HFSSM)**

These next questions are about the food eaten in your household in the last 12 months, since (July) of last year, and whether you were able to afford the food you need.

NOTE: [IF ONE ADULT IN HOUSEHOLD, USE "I," "MY," AND “YOU” IN PARENTHETICALS; OTHERWISE, USE "WE."]

1. Now I’m going to read you several statements that people have

made about their food situation. For these statements, please tell me whether the statement was often true, sometimes true, or never true for (you/your household) in the last 12 months—that is, since last (July).

The first statement is "(I/We) worried whether (my/our) food would run out before (I/we) got money to buy more." Was that often true, sometimes true, or never true for (you/your household) in the last 12 months?

☐ often true
☐ sometimes true
☐ never true
☐ don't know or refuse

2. "The food that (I/we) bought just didn't last, and (I/we) didn't have money to get more." Was that often, sometimes, or never true for (you/your household) in the last 12 months?
   ☐ often true
   ☐ sometimes true
   ☐ never true
   ☐ don't know or refuse

3. "(I/we) couldn't afford to eat balanced meals." Was that often, sometimes, or never true for (you/your household) in the last 12 months?
   ☐ Often true
   ☐ Sometimes true
   ☐ Never true
   ☐ don't know or refuse

4. In the past 12 months, did you or other adults in your household ever cut the size of your meals or skip meals because there wasn't enough money for food? ☐ Yes
   ☐ No (Skip 14a)
   ☐ don't know (Skip 14a)

4a. [IF YES ABOVE,] How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?
   ☐ Almost every month

☐ Some months but not every month
☐ Only 1 or 2 months
☐ don't know

5. In the past 12 months, did you ever eat less than you felt you should because there wasn't enough money for food?
☐ Yes
☐ No
☐ don't know

6. In the last 12 months, were you ever hungry but didn't eat because there wasn't enough money for food?
☐ Yes
☐ No
☐ don't know
7. In the last 12 months, did you lose weight because there wasn't enough money for food?
☐ Yes
☐ No
☐ don't know

**Section 3: Dietary Habits (Starting the Conversation Diet) - Modified)** Over the past few months:

1. On average, how many servings of fruits do you eat per day? ☐ 5 or more
☐ 3-4
☐ 2 or fewer

2. On average, how many servings of vegetables do you eat per day? ☐ 5 or more
☐ 3-4
☐ 2 or fewer

3. How often do you drink sugar-sweetened beverages (soda, sweet teas, juices)? ☐ Less than 1 time
☐ 1–2 times/week
☐ 3–5 times/week

4. How many times a week did you eat fast food

meals or snacks? ☐ Less than 1 time
☐ 1–3 times/week
☐ 4 or more times

**Section 4: Community Garden Participation- My additional questions:**

1. How did you hear about the community garden you participate in? ☐ Garden lot owner
☐ Garden participants
☐ Social Media/Internet marketing for available garden beds
☐ Recruitment for garden volunteers
☐ Other_____

1a. How frequently do you visit the current garden?
☐ Seasonally
☐ Less than once a month
☐ 1–2 times/month
☐ Weekly
☐ More than once a week

2. What is your role in the community garden? (Check all that apply.) ☐ I have my plot, planting/harvesting my vegetables
☐ I share a plot with others
☐ I help maintain shared/common areas
☐ I participate in educational workshops/events
☐ I volunteer occasionally

3. How long have you been involved in the community garden? ☐ Less than 1 month
☐ 1–6 months
☐ 6–12 months
☐ 1-2 years
☐ 3-5 years
☐ More than 5 years

4. Since participating in the community garden, do you feel your intake of fresh fruits and vegetables has increased?
☐ Yes
☐ No

☐ Not sure

4a. If yes, how has your intake of fruits and vegetables changed since you started harvesting from the community garden? (e.g., frequency, portion size, and use in meals.)

(Select one)

**Frequency**

☐ Significantly increased
☐ Somewhat increased
☐No change
☐Somewhat decreased
☐Significantly decreased
☐Not applicable / I do not harvest from the garden

**Portion Size**

☐ Significantly increased
☐ Somewhat increased
☐No change
☐Somewhat decreased
☐Significantly decreased
☐Not applicable / I do not harvest from the garden

**Use in meals**

☐ Significantly increased
☐ Somewhat increased
☐No change
☐Somewhat decreased
☐Significantly decreased
☐Not applicable / I do not harvest from the garden

**Section 5: Cultural Affirmation & Relevance- Modified additional question** 1. How often do you eat meals that include fresh or home-cooked vegetables from the community garden?

☐ Less than once a week
☐ 1–3 times/week
☐ 4 or more times/week

2. To what extent do you agree that growing or accessing culturally important foods from the garden influenced how you or your family cook or eat at home? (Select one)

☐ Strongly agree

☐ Agree
☐ Neutral
☐ Disagree
☐ Strongly disagree

3. To what extent do you agree that foods grown in this garden reflect my cultural background or traditions? (Select one)
☐ Strongly agree
☐ Agree
☐ Neutral
☐ Disagree
☐ Strongly disagree

4. To what extent do you agree that this garden helps me feel more connected to my cultural roots? (Select one)
☐ Strongly agree
☐ Agree
☐ Neutral
☐ Disagree
☐ Strongly disagree

5. To what extent do you agree that you have learned about other cultures' food and traditions through the community garden? (Select one)
☐ Strongly agree
☐ Agree
☐ Neutral
☐ Disagree
☐ Strongly disagree

6. To what extent do you agree that the garden lot owners/program leaders respect and incorporate diverse food cultures?
☐ Strongly agree
☐ Agree
☐ Neutral
☐ Disagree
☐ Strongly disagree

**Section 6: Matrix Question - Perceived Impact**

Since participating in the garden program, please indicate the extent to which you agree with the following statements:

**Rows (Statements)**

I feel more confident about preparing healthy meals
I feel more connected to my community
I feel more aware of my cultural food heritage
I feel better able to access fresh food
I have not experienced changes

**Columns (Response Scale) for each:**

- ☐ Strongly disagree
- ☐ Disagree
- ☐ Neutral
- ☐ Agree
- ☐ Strongly agree

**Section 7: My Open-Ended Questions:**

1. Are there any culturally important foods that you grow in the community garden? If so, which ones and why are they meaningful to you?" 1a. Have you noticed other gardeners growing foods that are culturally important to them? If so, can you share any examples?

2. What vegetables and fruits do you consume most from the community garden and why?

3. In what ways, if any, has the garden program influenced your intake of healthy foods?

4. Is there anything else you'd like to share about your experience?

# Appendix E: Interview Recruitment email

**Community Garden Interview Recruitment Script**

My name is [NAME] and I am a Master's candidate under the direction of Christopher Wharton, Arizona State University. I am conducting a research study to explore how culturally affirming community garden programs influence diet and food security in low-income neighborhoods, specifically Newark, NJ.

I am reaching out to invite you to participate in an interview discussion. You must be 18 years of age or older to participate. If you choose to participate, you will be asked open-ended questions that aim to understand your perceptions of the structure and purpose of the garden, culturally significant foods being grown, and food security interventions and community engagement strategies. The interview discussion will take 30-60 minutes over ZOOM/GOOGLE MEET based on your availability.

Your participation is voluntary, and you may skip any question or stop at any time without penalty. Your responses will be confidential and reported in a way that does not identify you personally (e.g., "One respondent shared..."), unless you decide to share your name.

For your participation, garden leaders and organizers will have access to one of three gardening workshops, such as garden literacy, culturally affirming crops, or sustainable growing practices, in collaboration with local food systems partners like [NAME]. These workshops will be educational and intended to directly benefit the participating gardeners and the community they serve.

If you are willing to participate in this important research, which will help elevate community voices in food systems research, support equitable, culturally relevant garden programs, and inform future policy, programs, and funding that can improve access to healthy food, please review the attached consent form. Simply fill in your name as a digital signature, and return it to me at [EMAIL]. I will then follow up with an email to arrange an appropriate time and date for the interview discussion. If you have any questions concerning the research study, please call me at [Tele #].

Thank you in advance for your time and your contributions to this important work.

Warm regards,
[NAME], Master's Candidate
Swette Center for Sustainable Food Systems, Arizona State University

# Appendix F: Interview Consent Form

**Semi-structured participant Interviews**

Title of Study: **How culturally affirming community gardens impact dietary habits and food security in low-income communities (Newark).**

**Invitation to Participate**

You are invited to participate in a one-time interview as part of a research study exploring how culturally affirming community gardens influence dietary habits and food security in low-income neighborhoods. This study is being conducted as part of my master's research at Arizona State University, Swette Center for Sustainable Food Systems, under the direction of Christopher Wharton, Professor of Nutrition, Arizona State University, College of Health Solutions.

The interview will last approximately 30 to 60 minutes and will consist of open-ended questions. I will conduct the interview either in person at your community garden or virtually via Zoom, depending on your preference. With your permission, the interview will be audio-recorded for transcription purposes only. The recording will be deleted once the transcription is completed and verified.

Your participation is voluntary, and you may skip any question or withdraw at any time without penalty. You may choose whether or not your role is identified in this study. If you choose to remain anonymous, I will ask for your verbal consent at the start of the interview. Your responses will be reported anonymously (e.g., "One interviewee shared..."). You must be 18 years of age or older to participate.

The interview will explore the structure and purpose of the garden and whether culturally significant foods are being grown. The use of the garden for food distribution, education, wellness programs, and food security interventions. There are no right or wrong answers—we are seeking your honest perspectives based on your experiences. There are no foreseeable risks or discomforts associated with this interview. While there are no direct personal benefits, your insights will contribute valuable knowledge about community food systems and culturally affirming gardening practices in Newark.

For your participation garden leaders and organizers will have access to one of three gardening workshops, such as garden literacy, culturally affirming crops, or sustainable growing practices, in collaboration with local food systems partners like [NAME]. These workshops will be educational and intended to directly benefit the participating gardeners and the community they serve.

**Confidentiality:** Your interview responses will be handled with care to protect your privacy. Your responses will be anonymous unless you agree to be identified by name.

Specific measures include:
-Audio recordings will be deleted after transcription. Transcriptions will be stored in a password-protected file, accessible only to the research team.
-Your identity will not be included in any reports, presentations, or publications. Although every effort will be made to maintain confidentiality, complete anonymity cannot be guaranteed.

If you have any questions about this study or your participation, please contact:

Christopher Wharton, Professor of Nutrition
Arizona State University, College of Health Solutions
cwharton@asu.edu | chs.asu.edu

[NAME], ASU Graduate Student
Arizona State University, Swette Center for Sustainable Food Systems
[EMAIL]

If you have any questions about your rights as a participant in this research, or if you feel you have been placed at risk, you can contact the Chair of the Human Subjects Institutional Review Board through the ASU Office of Research Integrity and Assurance at (480) 965-6788. Please inform us if you wish to be part of the study.

**Consent Statement:**
If you would like to participate in the study but would like to remain anonymous, I will ask for your verbal consent at the start of the interview.

If you agree to participate in the study and to be identified by name, please fill out the signature block below:

Name:_____

Date:_____

Please email this form back to [NAME] at [EMAIL].

# Appendix G: Semi-structured Interview

**Semi-structured Interview Discussion Guide**

Thank you so much for taking the time to meet with me and answer questions. This in-person/ZOOM/GOOGLE MEET will be recorded for auto-transcription purposes. This recording will be deleted after the completion of this project. Your responses will be confidential and reported in a way that does not identify you personally (e.g., "One respondent shared…") unless you decide to share your name.

Let's begin!

Introductions
(Name/location/position.)
**(Briefly discuss the purpose of the project.)**

Would you please introduce yourself, the name of the community garden, and your role at the Newark community garden?

1. How would you categorize your garden's primary purpose: local food production, aesthetic/lot improvement, or private use?
2. How long have you operated the community garden?
    a. Since you've started this garden program, what is the frequency of participation during peak/off-peak seasons?
    b. What motivates people to join this community garden? What are the biggest barriers that keep them from the garden?

3. If the gardens are food-focused and have assigned beds for growing food, **ask**… a. In your experience, how has participation in the garden affected participants' eating habits or food choices, if at all?
    i. Do you think culturally significant foods are important to access? Why? b. Are most of the participants from diverse cultural and ethnic backgrounds? c. From your perspective, what culturally significant foods are being grown here?

4. In what ways do community gardens create a system of local food production, and do you feel they are meeting the needs of low-income populations?
    a. Has there been any change in access to fresh fruits and vegetables since participation in the garden? *(Could be significant or no change)*
    b. If so, do you think these changes are due to culturally significant foods grown in the garden beds?
    c. Do you collect any feedback from participants about their experience or track outcomes like harvests, meal prep, or dietary changes?

5. Is the community garden used for other culturally significant activities and social engagement? What are these, and do they include involvement or acknowledgement

of diverse food cultures?
    a. How do gardeners learn about other cultures' food traditions through this garden?
6. Does your community garden collaborate with urban co-ops and farmer markets to enhance the gardeners' knowledge and make food accessible and affordable to them?
    a. If yes, how? And what other organizations have you collaborated with?

7. What funding, through grants and technical assistance, has your community garden received to improve food security and community nutrition?

8. What would you like to see more of in the garden in the next few years, especially when it comes to serving culturally diverse communities?

Conclusion
Is there anything else you would like to share about the role of community gardens in the city of Newark?

Thank you so much for taking the time to speak with me today!

# Appendix H: List of Tables and Figures

# About the Author

Bridgette Byrd, currently works as the Workforce and Apprenticeship Specialist for Urban Agriculture Cooperative and is responsible for building relationships with West Side High School faculty, Student Apprentices, and Partners to strengthen the farm-to-school program and create new entrepreneurial opportunities for Apprentices to apply their skills and knowledge in the local food system. She leads weekly lessons in agricultural education and local food procurement, empowering students to manage crop production at their school farm while emphasizing urban sustainability and the delivery of healthy, locally sourced foods to underserved areas, particularly food deserts.

Originally from New Jersey, the Garden State, Bridgette graduated Cum Laude from Rutgers University in May 2020 with a Bachelor of Arts in Psychology and a minor in Cognitive Neuroscience. She is an AmeriCorps FoodCorps alumna (2022–2024), whose service in the Newark Public School District helped foster a school-wide culture of health and well-being. She was featured by the USDA NJ Department of Agriculture for her leadership in implementing Jersey Fresh Farm to School initiatives and highlighted in the FoodCorps Service Member Spotlight video, “Cultivating Community with Food.” In 2024, she was recognized as Newarks’ Community Partner of the Year for launching the Conscious Consumption initiative to reduce food waste.

Bridgette’s environmental commitment is further reflected in her certification as a Rutgers Environmental Steward. Her international work includes sustainable farming initiatives addressing food insecurity in Greece and rural Puerto Rico, where she served as a Rutgers Global Experiential Leader. She is currently pursuing a Master of Science in Sustainable Food Systems at Arizona State University, continuing her path toward advancing sustainable food reform and building resilient, healthy communities.

Contact for more information:

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