

Food Security Scorecard & Food System Gap Analysis





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Study and report produced by Process First, LLC in partnership with the Nantucket Resource Partnership (NRP). Funded by the Massachusetts Food Security Infrastructure Grant Program.
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About Us

The 2024 Nantucket Food System Report, funded by the Massachusetts Food Security Infrastructure Grant (FSIG), is an in-depth analysis of food insecurity and local food production challenges on the island. This report was produced in collaboration between Nantucket Resource Partnership (NRP) and Process First (PF).

Both organizations have responded to the growing imperative to address food insecurity and food system resiliency by both feeding people today and working towards understanding the path to a more resilient food system in the future.



NRP is a local nonprofit working to create a truly food-secure Nantucket – a resilient community where islanders have access to adequate nutrition, improved community health outcomes, and a thriving local food system that incentivizes environmentally conscious practices.

theNRP.org

PROCESS FIRST

Process First is a missiondriven consulting firm committed to improving the food system. We provide research, analytics, and build digital infrastructure so that communities can get healthy food to people. processfirst.com

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Executive Summary

The report consists of three core elements:

- 1. an assessment of food insecurity programs,
- 2. an assessment of both new and persistent obstacles that affect the production of food on island, and
- an outline of opportunities for strengthening the island's food security that integrates both prior research and the findings of this project.

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Assessing Food Insecurity

This work was structured in a way that allowed NRP to understand the immediate opportunities for incremental improvement of existing emergency food relief programs, identify gaps in services, as well as look to the future where local food is being further leveraged for maximum community benefit.

Food Insecurity Drivers

The food security assessment portion of this work identified the impact that high living costs, seasonal employment, and geographic isolation have on driving food insecurity.

Program Specific Barriers

It also identified program specific barriers such as transportation, limited program hours, language differences, and awareness gaps that hinder participation in existing food programs.

Food Program Service Gaps

The food security assessment highlighted complete gaps in service like summer meal programs and medically tailored meals. These gaps leave vulnerable populations underserved which was captured by the Scorecard, developed to provide a means of establishing a baseline measure of the quality of our emergency food relief programs that can be referred to over time. The initial results of the scorecard demonstrated that our programs are providing a high level of quality but there remains significant access gaps to these programs that leave our most vulnerable community members, families and children, underserved.

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Limits to Local Food Production

Significant Challenges for Farmers

The gap analysis of local food production showed the significant challenges farmers face, including high land costs, insufficient infrastructure, and limited collaboration among farmers.

Barriers to Local Food Production

Farmers on Nantucket struggle with access to affordable inputs, adequate storage, and workforce retention due to housing shortages and seasonality. These barriers limit the island's ability to produce sufficient local food, increasing dependence on off-island sources and limiting food system resilience.

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Taking Action and Investing in the Community

This report was also designed to be forward thinking, solutions oriented and build on work that both NRP, PF and other key partners on the island have been conducting over several years.

Improvements to Nantucket's Food Security

Clear opportunities to improve the island's food security through enhanced service offerings, stronger local food production, and data-driven decision-making have been identified.

Short-Term Fixes

Addressing service gaps, expanding transportation options, and increasing enrollment in federal programs like SNAP and WIC are critical steps in the short-term.

Long-Term Fixes

While strengthening collaboration between food producers, improving infrastructure, and fostering leadership within the food security network will help build a more sustainable and resilient food system into the future.

The findings of this report emphasize that achieving true food security on Nantucket requires coordinated efforts from community stakeholders, policymakers, and local organizations. By leveraging the findings of this report which identify immediate action steps and opportunities for long-term systemic change through additional research and articulation of a vision, Nantucket is well-positioned to make informed decisions that improve access to nutritious food and enhance long-term food system sustainability.

In Pursuit of a Food Secure Community



Introduction

The Nantucket Resource Partnership (NRP) is building a food secure community through a multi-year, systems approach to change that will impact the entire island from health to the economy. Alongside key community partners, their bold plan is an example of "think global, act local." NRP's goal, supported by a combination of public and private funds including the Massachusetts Food Security Infrastructure Grant, is to define and build the path to a truly food secure, hunger-free community where there is equitable access to adequate and nutritious food for everyone on the island. While most communities may aspire to live up to this ideal, Nantucket has a strong sense of community, a significant source of philanthropy, a history of innovation, and the

leadership required to build a more resilient food system, a nutritionally secure community, and eradicate hunger.

Nantucket, originally a natural-resource-rich home of the Wampanoags, and later a world hub for whaling, is now a seasonal tourist destination known by locals for its close knit community, and by summer residents for its beautiful beaches and historic town. While the rest of the world and pop culture may know Nantucket as a destination for the rich and famous, when it comes to food insecurity, both at the individual scale and the community scale, it shares many of the same characteristics of the rest of the country, plus the logistical challenges of being 26 miles out to sea.

Previous research by Process First (PF), a key partner, revealed that food insecurity affects 21% of island residents—far exceeding the national average of 13.5%¹. What had been observed anecdotally—that despite Nantucket's summer wealth, lines at the food pantry were growing—was starkly confirmed by these numbers.

To address these issues, NRP has focused on work that balances the immediate need to alleviate hunger with the long-term need for change through three main strategic approaches: funding for existing programs, coordinating services between organizations, and continuing to research the complexities, nuances and realities of food insecurity on the island.

¹ USDA - Economic Research Service. (2024, September 4). Key Statistics and Graphics. https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-u-s/key-statistics-graphics/

NRP's most visible and expansive role is leading a coalition of social service organizations working to coordinate the services their clients require, provided with dignity, and designed to meet a wide range of client needs. This approach fosters efficiency, informed investments, and better program design through shared data and standardized evaluations.

To continue the coordination of these services and gather data for strategic and impactful investments, NRP recognized the importance of understanding how Nantucket is holistically addressing food insecurity. This report aims to answer several key questions to guide NRP in taking the most impactful next steps:

Key Questions Answered

- How well are we meeting the current needs of food-insecure community members?
- Who lacks access to these programs?
- How can we support our frontline food program partners in meeting the hunger that exists today on the island?
- What programs don't exist yet that could further meet the needs of our community members?
- How can we leverage local resources to improve the overall effectiveness of food security initiatives?

These questions resulted in the need for an assessment of the programs as well as the development of a scorecard that provides baseline metrics and a means to understand how we are improving over time.

NRP also acknowledges that addressing immediate hunger needs is not enough. A long-term strategy for food system resilience is essential. This includes understanding the current state of local production in anticipation of the opportunity to connect local farmers to food security programs, building toward

island-resilient nutritional security. Since food system issues are interconnected, it is important to consider how adjacent sectors can contribute to shaping a more sustainable and effective system.

Lastly, this report provided NRP the opportunity to understand the intersecting influences on our community's food security and develop proposals for future actions that include both short- and long-term actionable steps.

Objectives

Focus

1

Assess Food Insecurity

The primary objective of Focus 1 of the FSIG project was to create an evaluation framework and establish baseline measurements for food insecurity on Nantucket. This work examined the challenges of various demographics and evaluated the effectiveness of existing programs. Key factors analyzed included ease of access to programs, familiarity with the food received, quality of the food provided, eligibility criteria, enrollment rates, and participation rates.

Focus

2

Understand Limits to Local Food Production

The primary objective of Focus 2 for the FSIG research project was to understand the challenges within Nantucket's food system that hinder local food production. This includes assessing infrastructure, utility requirements, food waste management, and economic factors such as workforce and land use. Understanding these challenges is essential to achieving our overarching goals of community resilience, resident well-being, sustainability, and improved food availability and accessibility. By focusing on these key areas, we aim to create a comprehensive understanding of the food system's strengths and weaknesses, guiding strategic interventions that serve individuals, producers and the Nantucket community.

Focus

3

Identify Action Steps Leading to a Food Secure Community

The third focus of the research aimed to strengthen Nantucket's local food system to ensure long-term food security for all residents. Building on insights from the first two focuses, this research explored the intersection of local food security and the food system, and their impact on each other. This holistic approach enables us to design and implement strategies that address immediate food security needs while building a resilient and sustainable food system for the future.

Prior work that informed our research

NRP, Remain, and Process First have been working to understand and measure food insecurity and the food system on Nantucket since 2020. The following bodies of previous work helped to inform the research conducted as part of FSIG and have resulted in a larger context of understanding that will be shared further in this report.

Insights from this research will guide Nantucket in leveraging local strengths, addressing systemic weaknesses, and promoting community resilience. By collaborating with stakeholders, policymakers, and community members, we aim to develop a robust food system that supports the well-being and sustainability of the entire Nantucket community.

Food Insecurity Report (FIR)²

Published April 2022 by Process First and Remain Nantucket

This research was conducted to understand the food insecurity landscape on Nantucket, focusing specifically on social service organizations and the food-insecure community they aim to support. During informal and focused formal research, insights pointed to:

- Intersecting challenges and impacts of food insecurity
- Missing programs and services
- Eligibility gaps and barriers to enrollment
- Challenges in the coordination of service
- Lack of clear data to measure food insecurity



Food Insecurity Quantitative Report (FIQR)³

Published September 2022 by Process First and NRP

As an initial attempt to measure food insecurity on Nantucket, this quantitative analysis involved a high-level assessment of overall food insecurity (demand) and the capacity of local organizations (supply). The analysis revealed the limited availability of data required to identify specific areas for intervention.

² Process First. (2022). Food Insecurity Report. Remain Nantucket. https://thenrp.org/wp-content/uploads/2022/05/nantucket-food-insecurity-report-april-2022.pdf

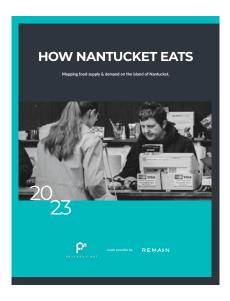
³ Process First. (2022). Food Insecurity Quantitative Report. Nantucket Resource Partnership. https://drive.google.com/file/d/1nMs9Ao9DVF57wel30Y9ip9K_bk03-R8p/view?usp=sharing



Gaps & Proposals⁴

Created in March 2023 by Process First and NRP

While previous work focused on understanding food insecurity problems, the Gaps & Proposals work explored potential solutions. By utilizing community and partner data, this work highlighted the greatest gaps in service on Nantucket and captured the relative impact and cost of various solutions for each gap. The goal was to create the framework for a data model that could prioritize decision-making and drive investments toward the most impactful solutions.



How Nantucket Eats⁵

Created in July 2023 by Process First and Remain

How Nantucket Eats was a food security mapping project that provided us with the supply and demand needs on the island. We gathered data from four island food security programs to inform the demand side of the equation and worked with island farmers to determine the top crops they produce to quantify the supply. Internally we researched crop yields and growing seasons to match top crop production with program consumption to determine the land needed to meet consumption demands.

⁴ Process First. (2023). Gaps and Proposals. [Unpublished]. Nantucket Resource Partnership. https://docs.google.com/spreadsheets/d/1x-vmuv_R-nIDIVMFrcS515Y06-UUJ6Bd-c8yH1cUoE/edit2usp=sharing_

⁵ Process First. (2023). How Nantucket Eats. [Unpublished]. Remain Nantucket. https://drive.google.com/file/d/1nBfqi8RXfLDZ5D5FSdaBTuAZVhQxqUcm/view?usp=sharing.5

Methodology



Research Design

This research combines insights from both current and previous studies to offer a full picture of Nantucket's food security and food system. Our research design for this particular project was on two main areas: the Regional Food Security Scorecard and the Regional Food System Gap Analysis.

For the scorecard, we sampled two groups: food security program partners and individuals affected by food insecurity. We received detailed insights from all food programs on Nantucket and randomly selected individuals facing food insecurity, representing about five percent of this population.

The gap analysis research included interviews with local producers to understand challenges and opportunities

in agriculture. We also analyzed public data, municipal and land records, and made observations to understand broader trends and land use. Additionally, we talked to local businesses and organizations like Stop & Shop, The Shellfish Association, and the Land Bank to get a complete view of how different stakeholders interact with and shape the food system on Nantucket.

Data Collection & Analysis Methods

We created two surveys to capture details about food security on Nantucket, one for food program partners and one for participants. The surveys were shared on social media and messaging apps, and we provided translations in Spanish and Portuguese to ensure everyone could participate. Participants received a \$10 Stop & Shop gift card as a thank-you.

For the gap analysis, we identified key questions and asked them to local producers. After the interviews, we grouped the data into categories such as infrastructure needs, utility requirements, food waste, and economic impacts. This categorization allowed us to highlight prevailing trends and challenges experienced by local producers in each area, as well as the viability for change within the local food system.

Limitations of Population

Data

The most recent U.S. census in 2023 lists Nantucket's population at 14,444 people. The Nantucket Data Platform, which uses geofenced cell phone data to track population, updated their Effective Population Study in 2023, measuring the year-round population 40% higher, stating "the wintertime population rarely falls below 20,000."

While these two population calculations are reached using different methods, they seek to answer the same question: How many people call Nantucket their primary home? The significant difference between these numbers, as well as a peak summer population of over 40,000, underscores why resource planning is imprecise and difficult. For this report, when we refer to the population of Nantucket, unless stated otherwise, we are referring to the U.S. Census estimate of yearround population.

In this body of work we build upon an understanding of existing programs and prior findings regarding gaps in the food system as a way to measure and understand what is required to make a truly food secure community.





The population in Nantucket fluctuates seasonally, but not nearly as much as it used to.

⁶ Worden, A. (2023). Nantucket data platform releases: The Effective Population Study, 2023. Remain. https://remain.org/resources/nantucket-data-platform-releases-the-effective-population-study/

Limitations to Research Findings

While this research provides valuable insights into Nantucket's food system and food security landscape, it is important to note that these findings should be viewed thoughtfully. The nature of this work presents challenges that could affect the accuracy and completeness of the research results. Some limitations we are aware of include:

Fluctuating Participation in Programs

The number of people participating in programs can vary, which might give a misleading picture. For example, if fewer people participate, it doesn't necessarily mean that food security has improved—it could be due to other factors such as difficulty accessing food programs.

Seasonal Changes

Nantucket's population and economy change significantly throughout the year. This makes it hard to assess food security consistently because these changes can affect how people experience food insecurity.

Stigma

There are associated stigmas around receiving help, being seen receiving help, and any traditional label associated with being a recipient of food security services; the most obvious example being labeled as "food insecure". This can make people reluctant to participate in the research or to be fully honest, leading to underreporting and potentially biased data.

Reaching Marginalized Groups

There are unique challenges when conducting research with marginalized groups that are historically more affected by food insecurity, particularly immigrant populations that may be fearful of impacts to residency status. This difficulty can introduce bias because the research might not fully represent these groups' experiences.

Self-Reported Data

The research relies on information provided by participants themselves, which can sometimes be inaccurate or incomplete, adding potential bias to the findings.

Incomplete Farmer Interviews

The research team interviewed half of the farmers on Nantucket, who collectively manage 97% of the island's current agricultural land. This means the results might not reflect the full range of experiences within the farming community.



Assessing Food Insecurity

Challenges of those who experience food insecurity

Food insecurity on Nantucket is driven by a combination of unique local factors. The island's high cost of living, particularly housing, places immense financial strain on residents. According to the Nantucket Association of Real Estate Brokers (NAREB), the median home price as of August 2024 was \$3.375 million on Nantucket. This means that in order to afford a home, islanders would need to be earning five times the area's median income. Additionally,

a 2022 Town Employee Survey indicated that 50% of town employees were housing cost-burdened (more than 30% of gross income going toward housing cost) and half of respondents were part of households that were extreme cost-burdened (more than 50% of household income going toward housing cost). This leaves little disposable income for other essential needs such as food and healthcare. The seasonal economy exacerbates these challenges, as fluctuating employment and income make financial stability even more difficult to maintain.

As Nantucket's popularity has grown, the tourism season now extends from May to October, and sometimes even into November or December. Workers who want to take advantage of these opportunities often need to stay on the island for at least six months, leading many families to enroll their children in local Nantucket schools.

⁷ Process First. (2023, May 15). STRWG Data Analytics. https://docs.google.com/presentation/d/IE_3vxFExvNqvnvU1ADq-6ti9V0b1Zvxbom2K9b2QXlo/edit#slide=id.g23ccaf69803_0_389

Once children are in school, it becomes difficult for families to leave in the winter when job opportunities have dwindled, contributing to a growing year-round population. According to the Nantucket Current, the island's year-round population has increased by 40.1% over the past decade, with many residents only able to find work for five to eight months of the year.

Additionally, Nantucket's island geographic location further intensifies these issues due to the limited resources available on island and difficulties seeking alternatives. Residents cannot easily travel to other locations for more affordable options, whether

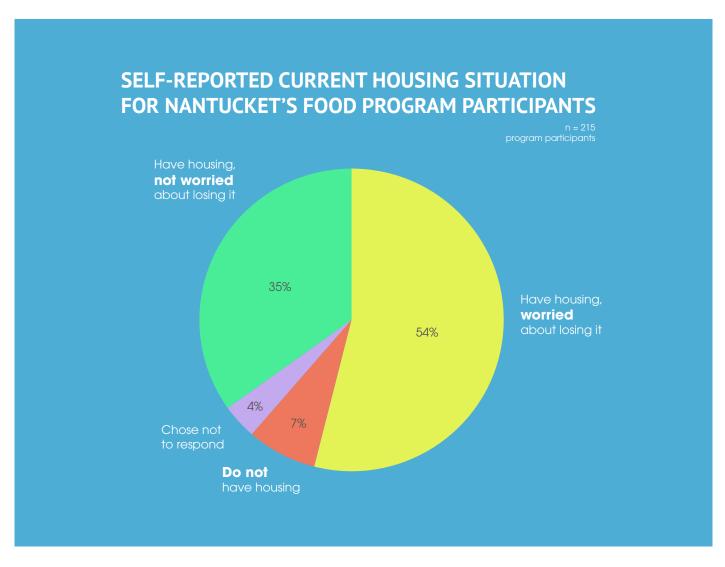
for groceries or housing, and programs that require inperson interactions, such as SNAP, are less accessible to islanders if they lack a physical presence on Nantucket. As a result, a significant number of year-round residents face food insecurity. According to estimates from the FIQR, 26% of the year-round population, ~4,500 islanders, struggle to consistently access food.

The Experience of Being Food Insecure

Living with food insecurity on Nantucket often means confronting and balancing a range of difficult choices and challenges. Individuals and families must frequently prioritize between basic needs, such as housing, utilities, healthcare, and food. The significant gaps and barriers that currently exist between need and support result in hungry families, diminished health, and extreme financial stress. According to the Food Insecurity Report, people facing food insecurity are often influenced by systemic issues, including the high cost and lack of secure housing, the inability to save money, tangible and intangible costs of childcare, and a lack of reliable transportation.

One major influence on food security is a lack of secure

^{8 8.} Dey, P. (2024, April 21). Time for the facts: Understanding Nantucket's housing and rental situation. Nantucket Current. https://nantucketcurrent.com/opinion/time-for-the-facts-understanding-nantuckets-housing-and-rental-situation



housing. This is a distressing reality faced by many due to the island's limited housing stock. Individuals and families often move several times a year. When living spaces are not large enough for more than a single person, families are forced to split up, living separately among a network of friends and extended family. This body of research confirmed these scenarios with 54% of survey respondents saying they "have housing, but are worried about losing it" with an additional 7% stating they "do not have housing" at all. Respondents also reported a range of issues they experience with housing including bugs, mold, lead paint or pipes, lack of heat, non-working stoves, no smoke detectors, no windows, and water leaks.

Another major influence on food security on Nantucket is the dynamic nature of a tourism-driven economy. During Nantucket's tourist season, employment opportunities are plentiful, and many people take on multiple jobs to support their families. However, when the off-season arrives, there is less work



available, prompting some community members to leave the island temporarily. This seasonal fluctuation creates financial instability, making it challenging for families to plan their budgets throughout the year. Additionally, many of these seasonal jobs do not provide health insurance and other benefits, which adds further financial burden and forces families to make even tougher decisions.

Barriers to Accessing Programs

Stigmas

Stigmas play a significant role in preventing individuals from accessing food security programs. Providing dignified experiences and reducing stigmas can be challenging to measure, but when these aspects are lacking, they can create obstacles that discourage people from seeking help. In both this study and informal community feedback, many individuals have expressed feelings of shame, discomfort, and judgment when using these services. These feelings often lead them to avoid seeking assistance altogether and have been shown to have long-term negative health impacts.9

Hours of operation

According to surveyed program participants, a program's hours of operation are the most common barrier to accessing the service. Many programs operate within a fixed set of hours that often coincide

with the working hours of program participants, making it incredibly difficult to access the service. Time and opportunities to take advantage of social programs can also be limited by lack of or the cost of childcare, especially for single-parent families. These challenges are even more prevalent in the summer when people are more frequently working 60+ hour weeks.

Transportation

Transportation, or the ability to reach a food program, is the second most common barrier faced by program participants surveyed in the FSIG research. Data from Food First, the referral platform used to refer community members to food programs on Nantucket, further supports this as 23.6% of individuals said that delivery is always necessary, with an additional 22.5% of individuals stating that delivery is sometimes necessary. When individuals lack reliable access to a vehicle, getting to programs during the hours they are open becomes a significant challenge.

Even when participants do have access to a vehicle, parking availability is a hindrance to program access. Individuals have reported spending 30 minutes or more searching for parking, often battling heavy traffic, particularly in busy areas or during peak summer months. This ordeal can turn a simple trip to receive food assistance into a two-hour endeavor. In some cases, the frustration leads users to

^{9.} Magruder, Kathryn M., et al. "Trauma is a public health issue." European Journal of Psychotraumatology, vol. 9, no. 1, 2017. National Library of Medicine, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5800738.9

abandon their efforts entirely and return home without the assistance they need.

Although Nantucket Regional Transit Authority (NRTA) provides free bus transportation, individuals relying on public transit still First, 61% of individuals listed a language other than English as their preferred language.

There is currently a lack of resources to ensure all materials and messaging by island institutions, organizations, and nonprofits money/credits are not added, the phone number may be recycled and given to someone else. Even when companies allow customers to retain their numbers longer without adding funds, those customers can only make calls or send texts if they have access to Wi-Fi. As a

Nantucket has quickly become a much more diverse community compared to the Nantucket of 20 years ago. More than 11 different languages and 17 different countries are represented within Nantucket's public school system.

face unique challenges when accessing food programs. Bus stops are often not conveniently located near service sites, and lengthy travel times can disrupt daily schedules. Even when public transit is available, carrying groceries and the discomfort of being seen with food assistance can further discourage participation. For those traveling with children or waiting in inclement weather, these challenges become even more difficult to manage, making public transportation a less practical option for many.

Language

Nantucket has quickly become a much more diverse community compared to the Nantucket of twenty years ago. More than eleven different languages and seventeen different countries are represented within Nantucket's public school system.¹⁰ According to data from Food

are multilingual. In the context of food security programming, this lack of resources presents a significant barrier for non-English speakers. Forms may not be available in their native languages and translations, particularly those created from free resources, like Google Translate, may be inaccurate or not representative of regional and evolving dialects. This can lead to errors on forms, misunderstandings about program operations, and other miscommunications that hinder access to services.

Telecommunications and technology

People with limited disposable income often utilize no-contract prepaid phone services.

According to a representative from H₂O Wireless, a cell phone service provider commonly used on Nantucket, customers are required to add money to their accounts monthly; if

result, many individuals turn to messaging apps like Facebook Messenger, WhatsApp, WeChat, and Telegram, which can be used with Wi-Fi access. These challenges create a significant barrier for both program operators and clients, as they may struggle to communicate with each other effectively when it is most critical. Very few programs on Nantucket have the capacity to reach out to clients using messaging apps and if the client's phone number is not in service at the time of communication, this touchpoint is lost. In some cases, inability to reach a client can be mischaracterized as non-responsiveness, and results in people not getting service(s).

Awareness of available programs

Even if someone is eligible for available programs, many community members are unaware of the program's existence. For instance, 62% of Food First participants reported that the reason they don't participate in available food programs is because of uncertainty about what help is out there.

This lack of awareness can likely be attributed to several factors including insufficient resources to create promotional campaigns for new programs, a lack of ongoing resources to promote existing programs, and inadequate outreach through channels that effectively reach unserved or underserved populations. For example, resources are commonly shared in informal community-formed Whatsapp or Facebook Messenger groups. These groups often change and new ones are created over time. Without regularly being invited to new channels of communication, programs may struggle to engage with the most relevant channels for increasing program awareness. As a result, eligible individuals may not utilize programs that could significantly benefit them.

A striking example of all the challenges above is the low utilization of the Supplemental Nutrition Assistance Program (SNAP) on Nantucket. In 2021, the island had one of the lowest SNAP usage rates in the state, with some estimates

indicating that up to 83% of eligible residents were not utilizing the program. With no official office on Nantucket formally responsible for increasing awareness, assisting with enrollments, and taking initiative to close this gap, this program will continue to be grossly underutilized.

Gaps in service offerings

In addition to these barriers and challenges in accessing existing services, there is a clear need for programs that currently don't exist.

Summer lunch gap

One notable example is the school lunch program provided by the Nantucket Public School system. While lunch is offered during the school year, summer meal coverage has been sporadic, with many years offering no lunch programs at all. During the COVID-19 pandemic in 2020 and 2021, a temporary grant made it possible to provide free graband-go meals, but this short-term solution underscored the

larger issue: our community lacks a consistent, reliable summer meal program. For families that rely on school lunches as a consistent meal for their children, the absence of this service during the summer can strain already tight budgets and leave children without food.

As of May 2024, the
Massachusetts Department
of Transitional Assistance
(DTA) in collaboration with the
Massachusetts Department
of Elementary and Secondary
Education (DESE) has
introduced grocery-buying
benefits to eligible families
during summer. Families will
receive one payment of \$120
per child between July and
September (\$40 per month).¹²
However, current enrollment
figures are unavailable.

Age-based eligibility gap

Age-based eligibility can also create gaps in service, as seen with the Woman, Infant, and Children (WIC) program. WIC supports pregnant or breastfeeding women and families with children under the age of 5, but when a child

In 2021, the island had one of the lowest SNAP usage rates in the state, with some estimates indicating that up to 83% of eligible residents were not utilizing the program.

¹¹ Food Bank of Western MA. (2021, March). The SNAP Gap in Massachusetts. Public.tableau.com. https://public.tableau.com/app/profile/food.bank.of.western.ma/viz/SNAPGAP2021/AllDistricts

¹² State of Massachusetts. Healey-Driscoll Administration Launches New Massachusetts Summer Child Nutrition Program. Mass.gov, 4 June. 2024, https://www.mass.gov/news/healey-driscoll-administration-launches-new-massachusetts-summer-child-nutrition-program

surpasses this age, the family loses access to these benefits. This creates what is known as a "social service cliff" where families face a reduction in support despite no change in their income.

Delivery offering gap

Programs that offer delivery services often have higher criteria thresholds, leaving out a large swath of individuals and families with temporary or permanent delivery needs. Programs like Meals on Wheels only offer delivery to clients over the age of 60, while others do not have the capacity to offer delivery to everyone who has asked for it due to limited resources. Additionally, programs are often unable to manage their operations in a way that can account for intermittent delivery needs.

This can leave individuals stranded at home after a medical procedure or due to unexpected vehicle issues, unable to access essential services.

Medically-tailored meal gap

Another gap in service is programs that offer prepared meals and/or medically-tailored meals. Many individuals seeking assistance may not have access to a kitchen or the ability to cook for themselves. Prepared meals are a critical service for meeting this particular need. For those with severe illnesses, such as cancer, renal disease, or HIV/ AIDS, access to medically appropriate meals can have significant health benefits. For example, one study found a 35% reduction in mortality rates and 47% reduction in

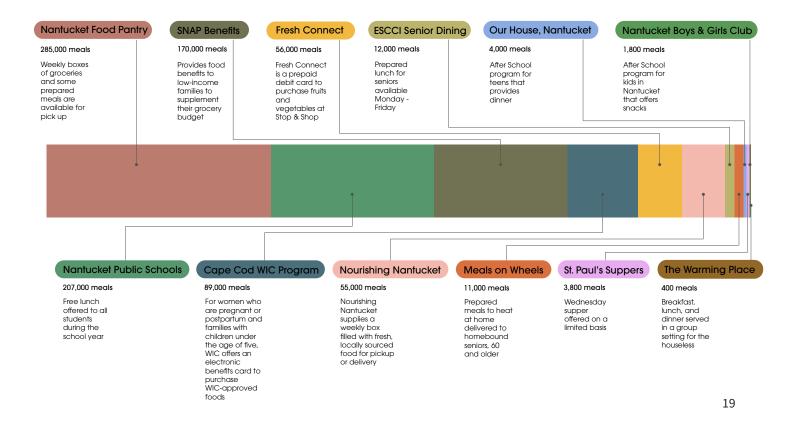
hospitalizations for heart failure among adults with heart failure, diabetes, or chronic kidney disease who received 10 weeks of medically-tailored meals after hospital discharge.¹³ On Nantucket the only available program offering medically-tailored meals is Meals on Wheels, which serves only homebound participants aged 60 or older.

Challenges of food security programs

Nantucket's food programs range from free groceries to delivered meals. Each program has unique challenges depending on its operational model, organizational

13. Go, A. S., Tan, T. C., Horiuchi, K. M., Laws, D., Ambrosy, A. P., Lee, K. K., Maring, B. L., Joy, J., Couch, C., Hepfer, P., Lo, J. C., Parikh, R. V., & KP NOURISH Study Investigators. (2022, October). Effect of Medically Tailored Meals on Clinical Outcomes in Recently Hospitalized High-Risk Adults. Medical Care. 60(10), 750-758. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9451942/

Annual Meals Served by Food Security Programs



LIMITATIONS FOR MAXIMIZING PROGRAM IMPACT

60% OPERATIONS CAPACITY STAFFING. OVERHEAD COSTS

50% FUNDING FOR FOOD

- 30% TRANSPORTATION
- 30% STORAGE
- 30% STATE OR FEDERAL GUIDELINES
- 20% ELIGIBILITY CRITERIA
- 20% PHYSICAL PROGRAM SPACE
- 10% FOOD PREPARATION AREA
- 10% ATTRACTING NEW PARTICIPANTS

% = $\frac{\text{programs' self-identified limitations}}{\text{total number of surveryed programs (n=10)}}$

structure, funding sources, and population served. While the nuance of each program is important to consider, the following issues illustrate broader challenges that impact most, if not all of the programs on Nantucket.

Limited program capacity

According to data analysis done in the Food Insecurity Quantitative Report by NRP, about 1,100 individuals are not yet enrolled in a program and would benefit from receiving access to healthy food. There are a myriad of reasons that people are not accessing programs but one of the most obvious answers is program capacity. Of the seven locally-run programs on Nantucket, four of them were at capacity and therefore unable

to enroll new participants at some point in 2023.

Limitations to maximizing impact

In order to understand how programs could serve more people, it was important for us to understand the limitations that these programs face in maximizing their impact.

Operations capacity

When asked this question, programs overwhelmingly listed operations capacity, which includes staffing and overhead costs, as the most common limitation for maximizing impact. This can likely be attributed to the large focus of grant funding and donations to directly fund food, rather than operations. Food programs are often encouraged to keep their overhead

costs low which can be to the detriment of programs. This often forces programs to rely heavily on volunteer workforces, limit the number of paid staff, and utilize outdated or donated tools, systems, and technology.

Funding for food

Funding for food was listed as the second most common limitation, indicating that programs feel limited in their impact by how much food they can offer. Funding for food is reliant on continuous efforts to apply for grants, organize fundraising efforts, manage donations and donor relations, or seek government sponsorship. Consistent, stable sources of funding can be difficult to find, adding to the administrative burden of running these programs.

Transportation, storage, and state or federal guidelines

Transportation, storage, and state or federal guidelines were all listed as moderate limitations. These challenges speak more to the nuances of various programs and additional context is needed to understand how each o these factors plays a role in limiting impact on a program-by-program basis.

Challenges in food procurement

For food programs that directly provide food to their participants, rather than vouchers or mechanisms to purchase food, the act of sourcing this food can be a challenge. Locally-produced food is often more expensive and has different channels for procurement. While larger, more established sources of bulk food, are primarily off-island which can present challenges when

there are supply shortages or ferry cancellations. Considering food is highly perishable, interruptions in products intended for Nantucket results in a shorter shelf-life when the product finally arrives at its destination.

Shortages

In 2022, a nationwide baby formula shortage occurred due to a major recall that severely limited the availability of supply. 14 Grocery stores across the country struggled to keep formula in stock, and families who relied on it to feed their babies were left in a difficult situation. Nantucket's remote location and limited retail options made this situation even more difficult. Families on the island, especially those without the means to buy in bulk, travel off-island, or who were already stretched thin working multiple jobs, were hit particularly hard. When crises like these arise,

Nantucket's food programs must respond quickly despite having fewer established supply chains to rely on.

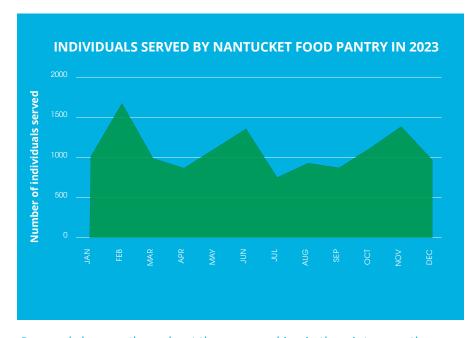
Ferry cancellations

Nearly all off-island food comes to Nantucket by boat. However, ferries to Nantucket are often subject to cancellations due to high winds or crew shortages. In 2023, the Steamship Authority, which serves Nantucket and Martha's Vineyard, canceled 1,030 ferries for the entire year. In the first seven months of 2024, the Steamship Authority canceled 987 trips, the majority due to crew shortages. 15 When this happens, shipments of food can be delayed, causing food programs to scramble to find other sources of food or shift operations to delay distribution.

Seasonality

As a tourist destination, seasonality has a huge impact on Nantucket's economy and population. Demand for food programs drastically changes throughout the year, as does availability of volunteer workforces and seasonally-available produce options.

The chart on the left depicts the monthly number of individuals served by the Nantucket Food Pantry. As one of the few programs that can respond to immediate needs, this data highlights how demand for food assistance changes throughout the year. Meeting these shifting demands requires significant operational flexibility and resources from food programs.



Demand changes throughout the year, peaking in the winter months.

¹⁴ Graziadei, J. (2022, May 22). "I panicked" Nantucket Families Navigate Baby Formula Shortage, And The Island Factor. Nantucket Current. https://nantucketcurrent.com/news/i-panicked-nantucket-families-navigate-baby-formula-shortage-and-the-island-factor

¹⁵ Genter, E. (2024, August 15). Worker shortage causes ferry cancellations to pile up. The Vineyard Gazette. https://vineyardgazette.com/news/2024/08/15/worker-shortage-causes-ferry-cancellations-pile#:-:text=Customers%20wait%20 in%20line%20at.other%20 reasons%2C%20 including%20 consolidated%20 trips.

Food Security Scorecard Overview

Why a scorecard?

The Food Security Scorecard was developed as a tool to provide a clear and measurable assessment of the current state of food security on Nantucket. Having a scorecard serves multiple purposes:

Baseline assessment

Establishing a baseline of food security conditions helps in understanding the current state of food security on the island. By knowing where we stand, we can better comprehend the scope and scale of the problem, laying the groundwork for future improvements.

Monitoring progress

A scorecard allows us to track change over time, helping to measure the effectiveness of interventions and strategies implemented to improve food security. This ongoing evaluation is fundamental to ensuring that our actions are making a tangible difference. Evaluation over time also allows us to understand responsiveness of programs to crisis or emergency situations, such as the COVID-19 pandemic.

Informing policy and action

By providing detailed data, the scorecard aids decision-makers in allocating resources effectively and planning strategic actions that are rooted in evidence. Policymakers and community leaders can use this information to design targeted interventions and policies that address the specific needs of the community.

Limitations to the scorecard

This first version of the scorecard represents a crucial first step in holistically evaluating food insecurity on Nantucket. It is important to consider these scores in the context of the broader challenges we face, as outlined above. While the scorecard is a powerful tool. it is not without its limitations. One of the challenges is that it does not fully capture the human experience behind the data. Numbers and statistics, while informative, cannot convey the personal and emotional realities of those facing food insecurity. Additionally, since the scorecard establishes a baseline, it does not yet offer comparative insights; it simply provides a starting point from which future progress can be measured. As with any tool of this nature, the measurements used are not perfect and will require refinement over time to ensure they accurately reflect the realities on the ground. It should also be noted that the scores are only reflective of those who actively participate in the program. Barriers that would prevent an individual from using the program in the first place have not been calculated into the scores.

Nantucket Food Security Scorecard

The Food Security Scorecard evaluated all current food programs on Nantucket to create an understanding of where we are meeting or not meeting the needs of various demographics. Program participants were asked to rate each program's quality, familiarity, and access on a 5-point Likert scale, and data directly from food programs allowed us to evaluate the enrollment, eligibility, participation, and meal distribution for each program.

Overall Score	61%
Access an individual's ability to access a program's services, including ease of getting there, hours of operation, languages offered, etc.	78%
Enrollment rates for national programs like SNAP (Supplemental Nutrition Assistance Program) and WIC (Women, Infants, & Children)	48% SNAP & WIC only
Familiarity an individual's familiarity with the food provided by a program's services, including knowing how to prepare the food and hav- ing it as a regular part of their diet	50%
Participation the rate of active participation in programs, defined as the average number of people regularly served	75%

82%

For more information on the data sources, please refer to the Appendix Data Reference Sheet.

the individual's assessment of the quality of the food offered by a program, such as whether

it is fresh, tastes good, is undamaged, etc.

Quality

Conclusions

Strengths in Quality and Access

The highest scores were in quality (82%) and access (78%). Not only did these categories receive the highest scores, they were also ranked as the most important attributes of a program by participants. This indicates that the food provided by the programs is generally well-regarded by participants in terms of freshness, taste, and condition. Additionally, many participants find the programs accessible in terms of location, hours, and available services. It should be noted, for those who stated reasons for not participating in a given program, transportation and hours were among the most commonly mentioned reasons for not participating, indicating that access still remains a barrier to entry.

Participation Rates

The participation score (75%) suggests that once individuals are enrolled, they are likely to regularly utilize the services provided by the food programs.

Challenges in Enrollment

The low enrollment score (48%) for SNAP and WIC indicates significant barriers to enrolling eligible individuals in these programs. This could be due to a lack of awareness, complexity in the enrollment process, or other accessibility issues. This aligns closely with our understanding of federal programs on Nantucket, particularly regarding SNAP, since there is no in-person contained office on Nantucket where eligible individuals can sign up for SNAP.

Familiarity with Food

The familiarity score (50%) indicates that many participants are not familiar with the foods being provided or how to prepare them. While this score is significantly lower than some of the others, it should be noted that participants ranked familiarity as the least important attribute of a program. A low familiarity score suggests a need for educational initiatives to improve familiarity and comfort with the food offered. Alternatively, further research could be conducted to better understand what foods might be more familiar to program participants and would thus be beneficial to procure as part of program offerings.

Nantucket Regional Food Security Scores by Community Demographic

The scorecard also examined how each of these programs serves various demographics on Nantucket.

MAKAI	

71%

SCORES BY DEMOGRAPHIC

Adults	81%
	· · · · · · · · · · · · · · · · · · ·

Children 71%

Families 71%

Seniors 81%

Conclusions

Seniors & Adults

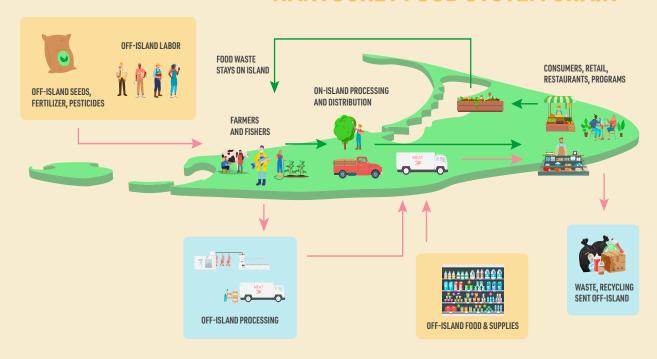
Scored the highest at 81%, suggesting programs are particularly effective for these groups. According to a community needs assessment commissioned by the Nantucket Center for Elder Affairs, Nantucket's older residents represent 20% of the community's current population and projections indicate that by the year 2030, older residents will make up 25% of Nantucket's population. The high score reflects the successful implementation of numerous programs designed to meet the needs of this growing population.

Children & Families

Both of these categories scored 71%, indicating that programs serving children and families could benefit from service improvements to increase their effectiveness.

¹⁶ Center for Social and Demographic Research on Aging. (2018, January). Aging on Nantucket: A community needs assessment. https://www.nantucket-Mantucket-A-community-needs-assessment-by-The-Nantucket-Center-for-Elder-Affairs-Inc-Needs-Assessment-Study-May-2018/

NANTUCKET FOOD SYSTEM CHAIN



Limits to Local Food Production

A local food system refers to the interconnected network of food production, processing, distribution, consumption, and waste management within a specific geographic area.¹ It emphasizes the use of locally sourced food, supporting community-based agriculture, and reducing the need for long-distance food transportation. Additionally, it promotes food sovereignty, which empowers communities to have control over their own food systems, ensuring that food production aligns with community needs.

Key Participants in a Local Food System

Farmers & Growers

Producers who cultivate crops, raise livestock, and engage in aquaculture within the community.

Processors

Facilities or small-businesses that transform raw agricultural products into consumable goods.

Distributors

Organizations or individuals responsible for getting food from producers to consumers, including local markets, food hubs, and delivery services.

Retailers

Local grocery stores, farmers' markets, and food co-ops that sell food directly to the public.

Consumers

Community members who purchase and consume local food products.

Waste Management

Entities involved in composting, recycling, and reducing food waste to maintain sustainability within the system.

¹ NCAT. (2024, June 20). Local Food Systems. ATTRA Sustainable Agriculture. https://attra.ncat.org/local-food-systems/#:-:text=A%20local%20food%20system%2C%20sometimes,recovery%2C%20in%20the%20same%20locality.



A local food system refers to the interconnected network of food production, processing, distribution, consumption, and waste management within a specific geographic area. 17 It emphasizes the use of locally sourced food, supporting community-based agriculture, and reducing the need for longdistance food transportation. Additionally, it promotes food sovereignty, which empowers communities to have control over their own food systems, ensuring that food production aligns with community needs. Together, the participants mentioned above create a sustainable, community-oriented food network that fosters economic growth, food security, and environmental stewardship. Local food systems are shaped by external influencers such as researchers, policymakers, and government entities, who provide essential data, policies, and support that enhance its effectiveness, sustainability, and resilience. Their interactions

with local participants create a dynamic environment that fosters a more robust and sustainable food network.

Farming is the backbone of the American economy, yet over the past five years, we have seen a loss of more than 140,000 farms, representing a 7% decline due to buyouts, consolidation, and the retirement of aging farmers.18 Profit margins in small farms have diminished and farm wages often fall below those in other industries, leading to a labor shortage. These economic pressures coupled with limited access to adequate physical and mental health services, can leave farmers in distress, highlighting the urgent need for support in the farming community.19

The challenges of farming on Nantucket align with these broader trends. They are often intensified by the island's unique circumstances, such as the high cost of living and land, and the added freight charges for having things shipped to the island via ferry. According to interviews with local farmers these factors add approximately 20% to all inputs and expenses.

Land

Nantucket's agricultural landscape has dramatically shifted since its rich farming history began in the 17th century. By 1850, the island supported over 100 farms and a thriving animal husbandry industry.²⁰ However, as of August 2024, fewer than 150 acres, representing less than 1% of Nantucket's total land, are dedicated to agriculture. This acreage, mostly under conservation restrictions, is privately owned and often subsidized through Land Bank funding.

The high cost of land on Nantucket presents a significant barrier for farmers. The island consistently ranks among the most expensive real estate markets in Massachusetts, with the median home value exceeding \$3.375 million as of August 2024 according to NAREB. The limited availability of land, compounded by its high cost, makes it difficult for new farmers to enter the industry or for existing farms to expand. This challenge is mitigated only for a few, such as multi-generational businesses like Bartlett's Farm and Moors End Farm, or the farmers who are able to lease land from organizations like Sustainable Nantucket or the Land Bank.

¹⁷ NCAT. (2024, June 20). Local Food Systems. ATTRA Sustainable Agriculture. https://attra.ncat.org/local-food-systems/#:~ttext=A%20local%20food%20system%2C%20sometimes.recovery%2C%20in%20the%20same%20locality.

¹⁸ Munch, D. (2024, March 7). Over 140,000 farms lost in 5 years. American Farm Bureau Federation. https://www.fb.org/market-intel/over-140-000-farms-lost-in-5-years#;~:text=Between%202017%20and%202022%2C%20the.about%20

¹⁹ Rural Response to Farmer Mental Health and Suicide Prevention. Rural Health Information Hub. (2024, July 18). https://www.ruralhealthinfo.org/topics/farmer-mental-health

²⁰ Gardner, W. (1974). Nantucket Farms. Nantucket Historical Association. https://nantuckethistory.org/webcat/request/Action?SystemName=Nantucket+Historical+Association&UserName=public&Password=&CMD_(DetailRequest) [0]=&TemplateProcessID=6000_3635&ProcessID=1001_30007(0)&KeyValues=KEY_6360

Infrastructure Challenges

Physical Infrastructure

Our interviews have indicated that Nantucket farmers face a number of challenges related to physical infrastructure, which is crucial for successful farming operations. Key findings include the following:

Lack of protective structures

Many farmers expressed that there is an inadequate amount of structures, such as greenhouses or hoophouses, to protect crops from adverse weather conditions, support propagation efforts, and extend the island's growing season.

Inadequate storage and processing space

Farmers on Nantucket face insufficient storage and processing space, which is essential for preserving surplus produce. The lack of adequate storage leads to increased food waste, as surplus food that could otherwise be processed into products with a longer shelf life ends up discarded or tilled back into the soil by way of composting.

Inadequate wash-pack stations

Some farmers on Nantucket lack designated wash-pack stations, which are necessary for cleaning and harvesting produce should the farmer want to sell at the institutional level. This deficiency hampers their ability to obtain food safety standards required for GAP certification, thus limiting access to key sales channels such as the hospital, local schools and some food retailers.



Barriers to infrastructure investment

The development of necessary infrastructure is often hindered by two main factors: cost and lease agreements. The significant capital investment required for infrastructure expansion is beyond the reach of many farmers. While a number of grant opportunities exist to secure funding for such development, many farmers do not have the time or resources to apply and manage grants through the award process. Additionally, lease agreements may restrict the construction of infrastructure due to limitations on groundcover or because the lease terms are too short to justify such investments.

Vulnerability of small farms

Small-scale farmers on the island are particularly vulnerable to crop failures and other

challenges caused by climate change and shifting weather patterns. Unlike larger farms, they do not benefit from traditional crop insurance, which is designed for larger-scale, monocrop operations, making robust infrastructure essential for maintaining their resilience.

Technological Infrastructure

The interviews conducted as part of FSIG revealed several critical challenges related to the technological infrastructure used by farmers on Nantucket. Key findings include the following:

Friction of supply / demand matching

The absence of adequate technological infrastructure creates significant friction in supply and demand matching, as well as the management of inventory, ordering and

tracking sales. Without access to real time data and digital platforms, farmers sometimes struggle to align their production with market demand, which would lead to overproduction or shortages. Having a lack of standardized measurement systems further compounds these challenges by making it difficult to accurately track ordering, inventory, and sales data. Relying on manual processes for these critical tasks not only leaves room for human error but also restricts farmers' ability to forecast demand, optimize resource use, and respond to market conditions effectively.

Operational efficiency

The lack of technological infrastructure significantly hampers operational efficiency, leading to higher labor costs and inefficient input management. Some farmers that continue to rely on manual, paper-based methods for tasks such as record-keeping and operations management, may experience increased labor demands due to the time consuming and error prone nature of these processes. This reliance on outdated practices not only inflates operational costs but also reduces productivity. Without the use of digital tracking systems for managing inputs like seeds, fertilizer and water, some farmers face challenges in optimizing resource use, which can result in over or underutilization of critical resources.

Operating Challenges

Utilities

Island farmers benefit from a unique arrangement wherein water usage is not accompanied by direct costs. Instead, farmers bear expenses solely for operating the pumps necessary for water extraction and disbursement.

In contrast farmers do incur costs for electricity and fuel expenses, critical for powering various agricultural operations and equipment. Costs to heat greenhouses through the winter months using typical heating sources, such as propane and oil, are high. This expenditure represents a fluctuating portion of farm operating costs based on season and weather conditions. Encouragingly, an emerging trend reveals that some island farms are transitioning toward sustainable energy practices, with notable adoption of solar energy systems supported by the Massachusetts Department of Agricultural Resources (MDAR) energy programs. By

harnessing solar power to fulfill electricity needs, these farms have not only reduced reliance on traditional energy sources, but also mitigated operational expenses in the long term. This shift toward renewable energy sources exemplifies a commitment to environmental stewardship while fostering economic resilience within the agricultural community.

Inputs

The agricultural sector on Nantucket faces difficulties in acquiring essential inputs such as fertilizer, compost, pesticides, and seed. The added cost of shipping these items to the island exacerbates the already high expenses of farming, especially on Nantucket. Many farmers explained that shipping is free for many required inputs as far as Hyannis. Individual farmers must incur ferry charges and delivery from there.

Moreover, the high cost of land and limited infrastructure may hinder the establishment of local businesses that could provide some of these inputs. Currently there are only a few local



sources for inputs, such as the compost provided by Nantucket's Department of Public Works and Toscana, a local earth-works service. However, farmers have reported that the locally available compost at times does not meet the need for nutrient dense input optimal for crop growth. Although the Town's compost is free, its demand is expected to rise as the quality improves, potentially straining availability.

Labor

Farming remains a laborintensive industry, necessitating an adequate staff and welltrained workforce to ensure success. Despite the higher wages farm workers on Nantucket earn compared to their mainland counterparts, farm owners struggle to compete with the wages offered by the landscaping/gardening jobs and jobs in the island's tourism sector. This disparity is commonly observed in the agricultural sector, where service sector wages can be up to onehundred percent higher than those in agriculture.21 This is exacerbated by the current housing shortage Nantucket is facing. Many farmers interviewed indicated that they struggle to attract staff if they do not provide housing, which is at times in their own home. This housing crisis significantly impacts the ability of farm employers to recruit and retain staff. One island farmer, who is fortunate enough to own their employee housing, stated that they can't hire more people due to insufficient room to board them. Other local farmers buy or rent homes with extra

bedrooms to ensure they have room for employees during the busy months.

Some Nantucket farm workers are drawn by an interest in the sector and are willing to accept lower wages in exchange for learning about the industry, provided they have secure housing. This contrasts with the majority of the Nantucket workforce, who are drawn to the higher-paying jobs in the service industry. Another source of labor that is used by Barlett's Farm and Moors End Farm is the H-2A Temporary Agricultural Workers program, which offers visas to non-U.S. citizens when labor shortages can be demonstrated.

Many farmers also express a desire to expand their sales channels year-round by offering value-added goods, which could create more year-round employment opportunities.

However, several barriers prevent this expansion, including the aforementioned labor issues, a lack of research into available sales channels, and sometimes a lack of infrastructure.

Consequently, these potential year-round jobs, important in the shoulder seasons and winter, are unavailable.

Education, Advocacy & Support Services

While Nantucket has a history of collaboration between the agricultural and public sectors, farmers have identified significant gaps in educational and mental health services available to them, as well as the broader community. Although there is enthusiasm for utilizing farm properties for educational and therapeutic purposes, farmers have expressed concern that these activities sometimes cut into their bottom line, as



²¹ Costa, D. (2023, October 5). The Farmworker Wage Gap: Farmworkers earned 40% less than comparable nonagricultural workers in 2022. Economic Policy Institute. https://www.epi.org/blog/the-farmworker-wage-gap-farmworkers-earned-40-less-than-comparable-nonagricultural-workers-in-2022/#:-;text=USDA%20has%20referred%20to%20this.low%20levels%20of%20educational%20attainment



they are not always reimbursed for their or their employees' time. This lack of compensation presents a challenge, making it difficult for farmers to balance their participation in community services with the financial well-being of their operations. Additionally, services that are available to off-island farmers, such as Southeast Massachusetts Agricultural Partnership and the Northeast Organic Farming Association, aren't available to Nantucket producers due to geographic distance and island location.

Farmers who lease their land also highlighted a lack of agency when influencing local policy decisions made by organizations and municipal bodies. Also emphasized was the need for stronger advocacy on the agricultural sector's behalf, expressing concern that their unique challenges are not always adequately represented. The absence of a dedicated advocate who is intimately familiar with agriculture was noted to be a challenge.

Lastly, the lack of mental health services tailored to the farming community was discussed as a challenge local farmers face. Given the various challenges previously mentioned, coupled with national and global trends, the need for mental health support within the agricultural community is particularly pressing.²²

Producers on Nantucket face a unique set of challenges that threaten the sustainability of their operations. High land costs, limited access to locally produced inputs, increased cost of off island inputs, inadequate infrastructure, and a lack of standardized technological systems all contribute to the difficulties of farming on the island. Moreover, the absence of mental health and advocacy services further exacerbates these issues, leaving local farmers without the necessary support to thrive. Together, these challenges create a complex environment that requires careful navigation and significant resilience from Nantucket's agricultural community.

²² Rural response to Farmer Mental Health and Suicide Prevention Overview - Rural Health Information Hub. (2024, May 28). Rural Health Information Hub. https://www.ruralhealthinfo.org/topics/farmer-mental-health



Taking Action and Investing in the Stressearch, with previous bodies of Stressearch and Investing in the Stressearch and Investigation in the Stressea

Findings from this research, along with previous bodies of research, have identified several opportunities for improvement to create meaningful change in our food system. It is crucial to recognize that no single solution can address the multifaceted challenges we face. Collaboration and collective efforts must be prioritized to develop effective strategies that benefit the broader community rather than focusing on individual farms, programs or sectors.

Each opportunity is interconnected and pursuing one in isolation would limit its effectiveness. These recommendations should not be seen as competing priorities, but as complementary efforts

that collectively strengthen the entire system over time.

Immediate
Opportunities
to Improve
Food Security
on Nantucket

Nantucket's social services and public programs currently provide about 900,000 meals per year for food insecure individuals, underlying the need and importance of understanding these programs, their clients and identifying ways to improve and strengthen these programs.

Community

Increasing funding for food security

While there are many programs working to combat food insecurity on Nantucket, these programs are often only able to provide service to so many people. Many local programs are at full capacity, unable to accept new participants. Because of this, even those who are fully

eligible and able to navigate the complex system of social services, are still turned away. Additionally, several programs have been at risk of discontinuing or scaling down due to lack of financial support. This includes local programs as well as federal ones, like WIC and SNAP, that each faced proposed bills in the last year that threatened significant budget cuts.^{23, 24}

Increased funding toward food security programs and initiatives is important for ensuring these programs continue to provide service to the Nantucket community.

Filling gaps in service

One of the most pressing challenges in the food security system is filling the gaps in service that have been identified, particularly for the most vulnerable populations. Data from this work reveals that children and families are disproportionately underserved on Nantucket, with 71% of survey respondents stating that current programs adequately meet their needs, highlighting a significant area for targeted improvement.

Another critical issue is the lack of access to kitchen facilities for some segments of the population. Some individuals and families rely on prepared meals because they do not have the means to cook at home. Current Nantucket food assistance programs do not

provide sufficient access to hot, nutritious meals, leaving these groups unable to participate in most existing services. Remain Nantucket is addressing this challenge by opening The Hive in Fall 2024, offering six commercial kitchens to rent for local food producers. This initiative has the potential to create a valuable connection to food security programs by increasing the availability of prepared, healthy meals and enabling local producers to contribute to food assistance efforts.

Furthermore, the problem of social service cliffs—where individuals or families lose eligibility for benefits due to small increases in income or aging out of programs like Women, Infants, and Children (WIC)—exacerbates food insecurity. Such barriers disrupt continuous access to food resources, making it difficult for people to maintain stability in their food supply. The FIR also points to the restrictive eligibility criteria that exclude many who need assistance, along with the lack of access to medicallytailored meals for those with chronic health conditions.

Addressing barriers to programs

Addressing the barriers that hinder access to food security programs presents a significant opportunity for improvement. Many programs operate during hours that conflict with the working schedules of participants, especially during the summer months when many residents work extended hours. Expanding the operating hours of food programs to include evenings and weekends would make these vital services more accessible, ensuring that more residents can benefit from the support available.

Transportation remains a major hurdle for many residents, particularly those without reliable access to a vehicle. Addressing transportation barriers—such as limited parking and inconvenient public transit options—by considering delivery services or more strategically located program sites could reduce the challenges participants face in accessing food programs. In particular, establishing program sites that are near other essential services such as schools, childcare

...considering delivery services or more strategically located program sites could reduce the challenges participants face in accessing food programs.

²³ Bergh, K., Hall, L., & Neuberger, Z. (2023, December 12). About 2 Million Parents and Young Children Could Be Turned Away From WIC by September Without Full Funding. Center on Budget and Policy Priorities. https://www.cbpp.org/research/food-assistance/about-2-million-parents-and-young-children-could-be-turned-away-from-wic.

²⁴ Llobrera, J. (2024, February 22). House Agriculture Committee Chairman Proposes Cut in SNAP Benefits, Reversing Bipartisan Directive to Improve the Thrifty Food Plan. Center on Budget and Policy Priorities. https://www.cbpp.org/blog/house-agriculture-committee-chairman-proposes-cut-in-snap-benefits-reversing-bipartisan

centers, and other social services could make it easier to access these services on a more regular basis, saving individuals the time of making a trip to a particular office or service site.

Another important opportunity lies in addressing language barriers. As Nantucket's population becomes more diverse, there is a growing need for multilingual resources to ensure that non-English speakers can fully access and understand available programs. Investing in resources that could provide programs with accurate translations and culturally appropriate communication materials would help bridge this gap.

Additionally, there is an opportunity to improve communication with participants, particularly those with limited access to telecommunications. Adopting messaging platforms commonly used by residents and ensuring that program communications are accessible even without traditional phone service could enhance engagement and reduce missed connections.

Finally, increasing awareness of available programs is crucial. Many eligible residents are unaware of the resources available to them, often due to insufficient outreach efforts. By leveraging community networks and investing in targeted promotional campaigns, programs can better inform and engage those in need. This could lead to higher enrollment and utilization rates, particularly for underutilized programs like SNAP.

Improving food security programs on Nantucket requires a more human-centered approach that involves individuals with lived experience in both program design and evaluation.

Reducing administrative burden on programs

Operations, staffing, and overhead costs were overwhelmingly the largest limitations to programs when asked what was preventing them from maximizing impact. The combination of this with planning around seasonality, having limited resources to spend on time-saving tools, and relying on volunteer or seasonal workforces can leave programs feeling discouraged about their ability to take on more. Additionally, funding for food is reliant on continuous efforts to fundraise, apply for grants, or seek government sponsorship. Consistent, stable sources of funding can be difficult to find, adding to the administrative burden of running these programs.

Community-level opportunities to collectively maximize efficiency and reduce administrative burden should be prioritized to maximize impact. Coordinated efforts to share resources and learnings across organizations could help reduce the costs associated with administrative functions, financial planning, productivity

tools, translations, fundraising, grant writing, volunteer coordination, messaging, and outreach.

Long-Term Opportunities for Improving Food Security on Nantucket

Improving dignity and reducing stigmas

Improving food security programs on Nantucket requires a more humancentered approach that involves individuals with lived experience in both program design and evaluation. This approach helps ensure that services are more responsive to the actual needs of the community while preserving dignity and reducing stigma. Training staff in trauma-informed care and cultural competency may create a more welcoming environment, helping to make programs more inclusive.

Engaging the community, particularly those who have

experienced food insecurity, is essential for creating effective and sustainable solutions. Their firsthand insights help ensure that programs are accurately targeted, culturally appropriate, and relevant, leading to better outcomes and greater participation. Moreover, it is crucial to reach out to individuals who have never used a food program but would qualify for assistance. Many in this group may not be aware of available resources or may feel reluctant to seek help. By actively reaching these individuals and addressing their barriers to access, programs can better support those who are in need.

Establishing safe spaces for participants to provide honest feedback, with trust and confidentiality, is crucial for gathering accurate insights and fostering a sense of ownership. By increasing community involvement and focusing on dignity and respect, food security initiatives on Nantucket can become more responsive and effective.

Increasing collaboration & coordination between entities

Another significant challenge within the food security system is the need for increased collaboration and coordination between various entities involved in food assistance. Currently, many organizations and programs operate in silos, which limits the effectiveness of their efforts and hinders the ability to reach everyone in need. There is a substantial opportunity for these entities to share resources, which could lead to more efficient and widespread support for food-insecure populations. For example, fostering connections with local businesses could provide additional resources, such as donations of food or financial support, that can be leveraged across multiple programs.

Increased collaboration between community entities would not only enhance the overall impact of food security initiatives but also streamline the process for individuals and families seeking help. By working together, these organizations can reduce barriers to accessing programs, ensuring that more people

receive the assistance they need. Streamlining services through coordinated efforts can also prevent duplication of efforts and make it easier for recipients to navigate the system, ultimately leading to a more cohesive and effective food security network on Nantucket.

Driving data-informed investments

Optimizing Nantucket's food security system requires a datadriven approach. Standardizing and integrating data across all food assistance programs and organizations working toward centralized systems is essential for gaining a comprehensive understanding of food insecurity on the island. As highlighted in the Nantucket FIR, no single dataset currently provides enough information to fully grasp the scope of food insecurity on Nantucket. These data gaps hinder the development of effective, holistic strategies.

By standardizing evaluation and metrics, stakeholders can collect, analyze, and share data more effectively, leading to more informed decisionmaking. This unified data system will allow for the development

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of strategies that are tailored to the community's specific needs, ensuring resources are directed where they can have the greatest impact. This datadriven approach not only helps identify the most promising opportunities for intervention but also enables organizations to measure outcomes and assess the effectiveness of their efforts. By continuously monitoring and refining strategies based on data, the food security system can achieve continuous improvement, ultimately leading to more sustainable and effective solutions for addressing food insecurity.

Vision and leadership for the island food system

Leadership within the food security system is crucial for ensuring the effectiveness and coordination of efforts to eliminate food insecurity. A dedicated leader or leading organization is essential for setting a clear vision, aligning stakeholders, and driving cohesive action toward shared goals. A strong leader facilitates communication, reduces duplication of efforts, and ensures that resources are utilized efficiently across the system.

A designated leader or leading organization enables us to assess and monitor key metrics, aligning them with community-wide goals while also connecting food-related objectives to broader environmental, health, and economic targets. By prioritizing initiatives, identifying gaps in service, and fostering accountability, leadership ensures that the

By prioritizing initiatives, identifying gaps in service, and fostering accountability, leadership ensures that the food security system operates harmoniously and adapts to evolving challenges.

food security system operates harmoniously and adapts to evolving challenges. that all parts of the food security network are working in harmony. Ultimately, effective leadership and collaboration is key to building a resilient and responsive food security system that better serves the needs of the community.

Opportunities to Increase Local Food Production

Shared resources & producer collaboration

The food production system on Nantucket faces significant limitations that are made worse by a lack of coordination between producers and the high administrative and operational costs of running farms. FSIG has highlighted that there are limited opportunities for knowledge and resource sharing among food producers on the island, which magnifies these limitations. Already more costly agricultural inputs, transportation, and distribution are critical

components of the local food system, yet they are often managed independently.

Pooling resources would enable food producers to reduce costs related to administration, marketing, and distribution. By fostering better communication and collaboration, the island's food producers could collectively overcome these challenges, leading to a more integrated and cost-effective local food system.

Development and access to infrastructure

Targeted investments in infrastructure required to grow, harvest, store, process, and sell food is an important step in providing farmers with the resources they need to have thriving, profitable businesses. Many farmers expressed a desire for additional structures, such as greenhouses or hoophouses, to protect crops from adverse weather conditions, support propagation efforts, and extend the island's growing season.

Additional processing facilities would allow producers to get



more food and value-added goods into the marketplace. For example, increasing access to wash-pack stations could open sales channels for producers who may not be able to currently meet the criteria required to sell to institutions. Similarly, expanding access to valueadded processing facilities, like commercial kitchens, would allow producers to process food before it spoils or is no longer able to be sold, reducing food waste. Moreover, developing infrastructure specifically for value-added goods has the added benefit of providing more year-round employment opportunities, addressing some of the labor challenges that producers face.

Leveraging Local Food Production for Community Benefit

The potential to use local food production as a means to serve more and better-quality food to Nantucket residents

presents both opportunities and challenges. Research from both FSIG and How Nantucket Eats indicates that there is significant viability in increasing food production on the island, creating resilience in the local supply chain by reducing dependency on external food sources.

Local food is better for the community for several reasons: it's fresher, as it does not require long transportation times, which often diminish the nutritional value and taste of food. This translates into higher quality and more nutritious food for residents. By keeping food production within the community, there is also a reduced environmental impact due to lower carbon emissions associated with transportation.

Nantucket's ability to enhance local food production and its food system could have a significant impact on its economy. According to the USDA, in mainstream supply chains, farmers retain roughly 20% of the retail price. Comparatively, in short supply chains, farmers are able to retain up to 100% percent of the retail cost.²⁵ This indicates that strengthening local food production provides substantial economic benefits to local producers and the community.

Additionally, establishing new demand channels, through food programs and other local organizations, offers the potential for more reliable sources of business for producers, reducing risk that exists in the traditional produce retail sector.

However, to fully realize these benefits, the community must address several challenges. Increasing local food production requires coordinated efforts to ensure that the infrastructure, resources, and support systems are in place to enable sustainable growth. This will involve aligning community resources, fostering collaboration, and overcoming the systemic barriers that currently limit local production.

²⁵ Tropp, D. (n.d.). Why Local Food Matters: Views from the National Landscape [PowerPoint Slides]. USDA Marketing Service. https://www.ams.usda.gov/sites/default/files/media/Why%20Local%20Food%20Matters.pdf



Conclusion

The work completed in FSIG allowed us to build on prior work, deepen our level of understanding of food insecurity on Nantucket, and uncover obstacles facing local food production. This report has outlined the critical challenges and opportunities Nantucket faces in building a thriving, resilient, and equitable food system that fully maximizes the opportunity to not only be a hunger-free community but increase islanders' access to local, nutritious produce from island farms. The findings underscore the complex interplay of economic, social, and environmental factors that contribute to food insecurity on the island and also highlight the opportunities we have at our fingertips to work toward a food-secure island.

By leveraging the insights gained from this research, stakeholders can implement targeted interventions that address both immediate needs and long-term sustainability.

Specific proposals have been included in the appendix of this report that strategically address the challenges highlighted in the report above. Each proposal is interconnected and addressing them together will maximize their impact. These recommendations should be viewed as complementary, working in unison to strengthen the entire system.

Addressing food insecurity and solving the housing challenge on Nantucket is critical.
Creating enough affordable and attainable year-round housing is a billion dollar problem that

will take decades to solve. However, we believe that food security could be effectively managed within 3-5 years. Investing in transformative food security systems could significantly enhance the health and wellbeing of the island community, requiring far less financial commitment compared to addressing the housing crisis. The research and attached proposals, provide a roadmap for achieving this ambitious goal. It will require continued collaboration among community members, policymakers, and local organizations. As these efforts progress, ongoing assessment and adaptation will be essential to ensuring that every resident has the opportunity to thrive in a healthy, equitable, and sustainable food environment.

Proposals

In response to the challenges and opportunities identified in the 2024 Nantucket Food System Report, a series of targeted proposals were developed to enhance agricultural sustainability and community food security. By focusing on these strategic areas, the proposals seek to improve long-term food security and ensure a more resilient and sustainable future for Nantucket.

- **FSIG Appendix Proposal Agricultural Cooperative**
- FSIG Appendix Proposal Nantucket Community Food System
- **FSIG Appendix Proposal Nourish Nantucket**
- FSIG Appendix Proposal Expansion of Food First
- FSIG Appendix Proposal Framework for Collaborative & Comprehensive Research

Future Research Opportunities

While this research project has provided valuable insights into Nantucket's food system, several areas require ongoing investigation to fully understand and address the island's food security challenges. Continued research in the following areas is recommended.

Food Security Scorecard

To track progress and identify emerging trends, it is crucial to continue the Food Security Scorecard on an annual basis or at a predetermined interval. This ongoing assessment will help measure the impact of implemented recommendations and guide future actions.

Program Participant Surveys

Resurveying food program participants periodically will provide updated information on food sourcing. Understanding how participants feel about the programs they are receiving food from as well as where they are obtaining their other meals will offer a more comprehensive picture of food security and highlight areas needing additional support.

Food Waste & Other Areas of the Food System

Expanding research into food waste and including island restaurants and other commercial entities is essential for developing effective waste reduction programs. By understanding the extent and nature of food waste in the restaurant and commercial sectors, targeted interventions can be designed to minimize waste and enhance sustainability. There is also significant potential for food waste from farms to be incorporated into food security programs as an opportunity to increase availability of fresh, local produce.

Food Rescue

Rescuing food waste from fields is an increasingly common practice but only done informally on Nantucket. Investigating food rescue efforts is critical for ensuring that surplus food reaches those in need. Research should focus on existing food rescue operations, identifying gaps and developing programs to enhance the efficiency and effectiveness of these initiatives.

Aquaculture

Despite the historical significance of aquaculture and fisheries to Nantucket, this study has uncovered challenges that persist in the growth and sustainability of this industry. While aquaculture on Nantucket is beyond the scope of this research project, its potential merits further investigation. Exploring this area could uncover valuable insights into sustainable practices and economic benefits for the island community.

By addressing these areas through continued research, we can build on the findings of this project and develop more robust strategies to enhance food security, reduce waste and support a sustainable food system on Nantucket.

Data



Data Reference Sheet

Glossary

Animal husbandry

Refers to the practice of raising and caring for animals for products such as meat, milk, fiber, and eggs.

Food insecure

While we acknowledge this term is not ideal and causes gaps itself, this is the verbiage used by the USDA and is used at times in this report when referring to classifications and standards as defined by the agency to maintain consistency and clarity.²⁶

Food rescue

Also known as food recovery, food rescue is the practice of collecting fresh, edible food that would have otherwise gone to waste from restaurants, grocers, and farmers and distributing it to local] food security programs.

Food waste

Food that is discarded or disposed that is or was fit for human consumption at some point. It can occur at any point in the food production process (farming, retailing, consuming, etc.

GAP certification

"Good Agricultural Practices" is a voluntary certification program that verifies, by a third-party, that food safety practices are being used on a farm or a facility that handles produce.

Geofence

A virtual boundary that corresponds to a realworld location.

Mainstream supply chain

A mainstream supply chain refers to the network of all individuals, organizations, resources, activities and technology involved in the creation and sale of a product. This includes farm inputs, production, transportation, processing, distribution, consumption and waste.

Medically-tailored meals

Fully prepared meals that are customized to meet the nutritional needs of people's specific health conditions, such as cancer, Alzheimer's disease, cardiovascular disease, renal failure, COPD and more.

Short supply chain

A supply chain involving no more than one intermediary between farmer and consumer.

Value-added goods

Raw or pre-processed commodities whose value has been increased through the addition of ingredients or processes that make them more attractive to the buyer and/or more readily usable by the consumer. For example, a farmer processes a tomato harvest into salsa or tomato sauce for consumer purchase.

²⁶ USDA - Economic Research Service. (2023, October 25). Definitions of Food Security.https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-u-s/definitions-of-food-security/#:~:text=Food%20insecurity%E2%80%94the%20condition%20assessed,may%20result%20from%20food%20insecurity

Scorecard Definitions and Data Sources

From *The Nantucket Food Security Scorecard* on pages 23-24

Access

Program participants' rating of their ability to access a program's services on a 5-pt Likert scale. **Source of Data Collected:** Participant survey

Eligibility

People who are eligible for program services. Defined in some cases by program heads and in other cases by written eligibility requirements. **Source of Data Collected:** Program survey / Process First research

Enrollment

Defined as formal enrollment + waitlist for program services. If there is no formal enrollment, this is defined as the number of people served at least once in 2023 + people on the waitlist. Displayed in this scorecard as a percentage of all people eligible for program services who are enrolled in that program (enrolled/eligible)

Source of Data Collected: Program survey / Process First research

Enrollment inclusion

We only included enrollment as a scoring category for WIC & SNAP, which are large programs with a theoretically "unlimited" stream of benefit for those eligible in Nantucket. Only these programs were considered as island programs all have a wait list, so are currently fully enrolled

Familiarity

Program participants' rating of their familiarity of food received from a food program on a 5-pt Likert scale.

Source of Data Collected: Participant survey

Meal Equivalents

Food is distributed from programs in a variety of ways (individual meals, cash/gift cards, boxes of food, etc.). To standardize all programs, we converted all measures into a 'meal equivalent') **Source of Data Collected:** Internal Process First calculations

Participation

Defined as the average number of people who are regularly served. Displayed in this scorecard as a percentage of all enrolled people who are regularly served (served/enrolled)

Source of Data Collected: Program survey

Quality

Program participants' rating of the quality of a food program on a 5-pt Likert scale.

Source of Data Collected: Participant survey

Weighting

Weighting was done two ways: for the participant survey, weighting between quality, access, and familiarity was gleaned by taking raw survey scores where the participants signaled the order in which the items were important to them. To include enrollment and participation, which were taken from the program survey, into the overall score, we assigned a weighted value of either 25% each for participation and enrollment if bo th were used, or else 33% if only participation was used.