

Executive Summary

The food system has never been primarily focused on making sure people are fed nutritious meals. Some obstacles to greater food access for historically marginalized communities are the result of an over reliance on the market to solve problems that in many ways the market itself creates. As with every disaster before, COVID-19 has impacted many of these same communities the hardest. It has made it clear the food system needs to be overhauled, and that includes, but not limited to, reimagining the built environment. In New York City, the South Bronx is an area where the inequities of the food system are most clearly manifested. Even though Hunt's Point Cooperative Market, the City's largest food distribution facility, is located in the South Bronx, the fact that the area continues to have the worst food insecurity in the city is nothing short of food apartheid.

Our response to this flawed system to take an equity-focused approach to create systems that counter the prevailing market driven forces. We propose the development of a Neighborhood Food Hub in the South Bronx that is primarily focused on equitable access to healthy food rather than capital or profit. This food hub would provide both a dedicated, well-resourced base of operations for organizations fighting food insecurity in the South Bronx, as well as a community-led space where food insecure residents can gather to receive, cook, eat, and share food and food-related resources.

“

Food justice movement can be co-opted by being 'folded into neoliberalization processes through state involvement and an underlying assumption that food injustice can be solved by private market forces, namely the presence of transnational food companies with increasingly dominant retail arms as well as new types of food provisioning at the geographically localized scale.

”

The neighborhood food hub model has been successful at targeting the spatiality of food insecurity in other places, and we believe that the South Bronx would benefit enormously from a similar resource. Our goal is to provide a framework to think about how the last miles of the city's supply chains can be more focused on the individuals, families and communities that are not serviced by the current system, but it is important to know that our recommendations cannot solve every problem.

Our recommendation of a neighborhood food hub helps to address important issues of spatially inequitable food access. However, solving food insecurity at large requires a comprehensive overhaul of the social support system with an intentional focus on mitigating racial and economic injustice. Our recommendations need to be coupled with other policies that address the different types of inaccessibility. Public entities like the Land Use Commission of the City Council have an imperative obligation to interject on behalf of the people who are left behind by the market-driven food system, with our recommendation serving as just one possible such intervention.

The Report begins by providing an overview of our background research. We start at the city level before we focus in the South Bronx. Next we discuss our mixed methods approach using community outreach with different organizations fighting food insecurity and combining that with our own data analysis and mapping. Our proposal has multiple parts. First, and most importantly, we provide an equity framework based on the work of racial justice and public health professionals. This framework starts with the goals of NFH and provides recommended strategies to both achieve and evaluate these goals. We then use these principles to complete a site selection of a potential food hub using a Multi Criteria Decision Analysis. This proposal is nothing without continued community engagement, and so we discuss some of different stakeholders who can help form the coalition to implement a NFH. Finally, we look at how policy changes can make NFHs possible in other neighborhoods.

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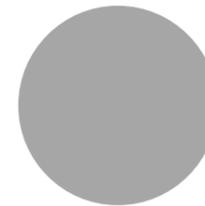
The Studio

New York City's resident population of over 8 million people requires a vast geographical region and multiple systems to ensure an adequate food supply. Over the last decade or more, New York City has undertaken several initiatives to advance the security of its food supply, including:

- Adoption of zoning and financial incentives to encourage development of supermarkets selling fresh produce within underserved neighborhoods (Food Retail Expansion to Support Health (FRESH) in 2009);
- Evaluation of the last-mile food distribution systems and how to make it more resilient (2016);
- Creation of a permanent Mayor's Office of Food Policy to oversee initiatives of other City agencies related to food and to report on the City's annual progress through a series of food metrics.

In August 2019, Council Speaker Corey Johnson released a policy agenda entitled "Growing Food Equity in New York City" encompassing a broad suite of policy actions the City could take to advance food equity and justice. Many of these policies and programs align with Green New Deal principles that highlight the need for greater resiliency in all systems serving metropolitan areas to achieve environmental, economic, and equity solutions.

The "Feeding the City" studio will evaluate the progress of New York City to date on implementing broader policy goals on food resiliency and will select several potential policies or initiatives for a deeper-dive.



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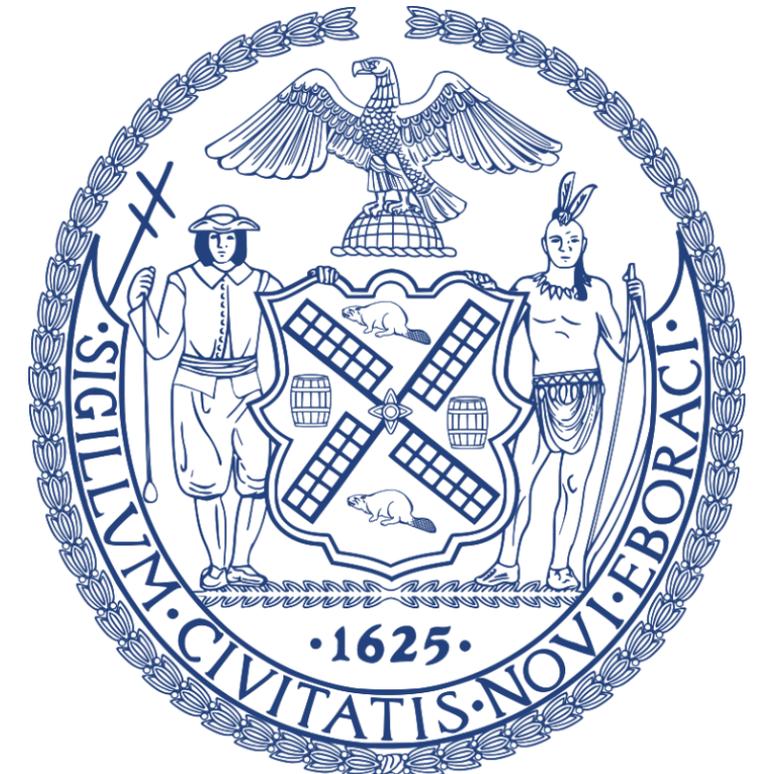
The Client

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I. **Background: Going from City to Borough Level**

New York City & Food Insecurity

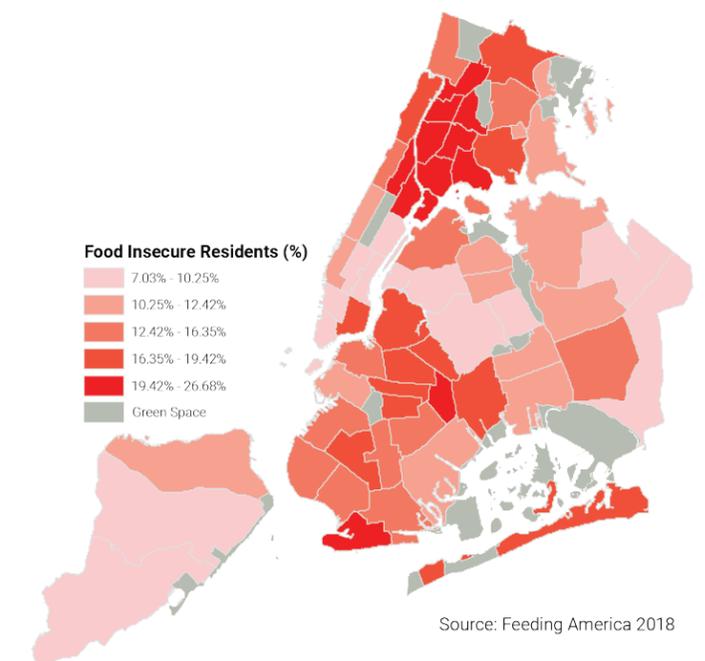
Introduction

New York City is a metropolitan magnet with a population of approximately 8.4 million people. City dwellers rely on their diverse food options, from a variety of access point locations, such as the local bodega, grocery store, or school cafeteria. From farmers markets, big box stores or online delivery baskets of food, the majority of New Yorkers heavily rely on their neighborhood level access points to procure their food consistently.

The New York City's food market is unique in the country, as the high population density supports a fragmented retail market of small- and medium-sized grocery stores. (ICB Report, 2021) Compared to the national food industry. This non-stop functioning of this complex supply chain comes with its own set of challenges tightly intertwined with the issue of food insecurity and its causal factors based on public health, economic development, social justice and environmental resilience.

This report aims to highlight the existing gaps in the food system in New York City and evaluate potential solutions to improve food security among vulnerable populations. Given the breadth of this topic, we first want to define food insecurity in the context of New York City, as well as the ongoing COVID-19 pandemic. Food insecurity is a problem that interacts with all five elements of this system. As we evaluate the challenge of food insecurity and potential recommendations, we will be positioning ourselves within this cycle and seeking ways to improve the sustainability and equity of New York's circular economy.

Food Insecurity in New York City



Where Distributors Send Their Food?

In looking to understand distributors and where point-of-sale outlets are getting their food, it was imperative for us to explore the network of The Bronx's Hunts Point. It is the largest hub for food distribution in New York City, supplying a twelfth of the city's food—2.3 billion pounds—and distributing just as much to destinations outside of the city.

Who Feeds 19 Million New Yorkers Every Day?

New York state officially employs almost 800,000 workers in the food supply chain, most of whom are service workers in New York City. Nearly a quarter are combined food preparation & serving employees, like fast food workers.

Source: U.S. Department of Labor, May 2017 Estimate

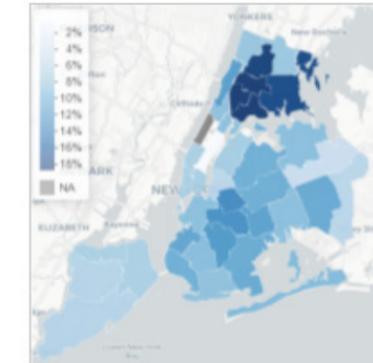
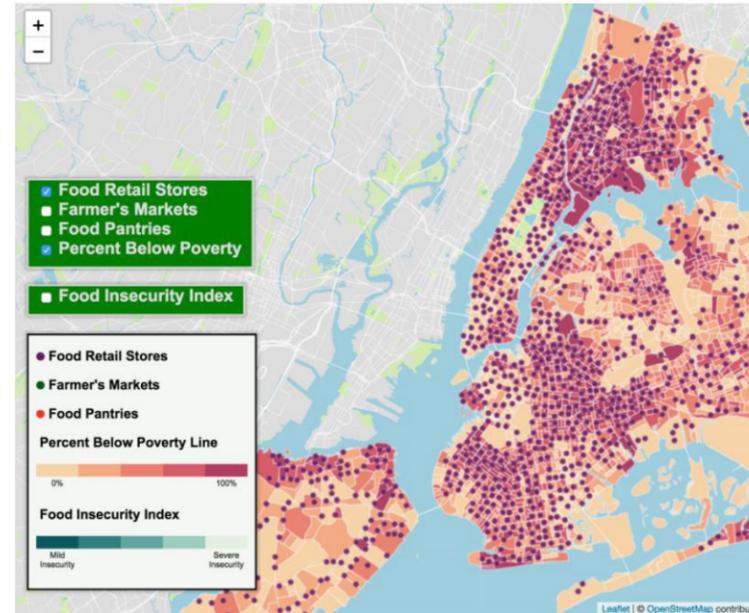
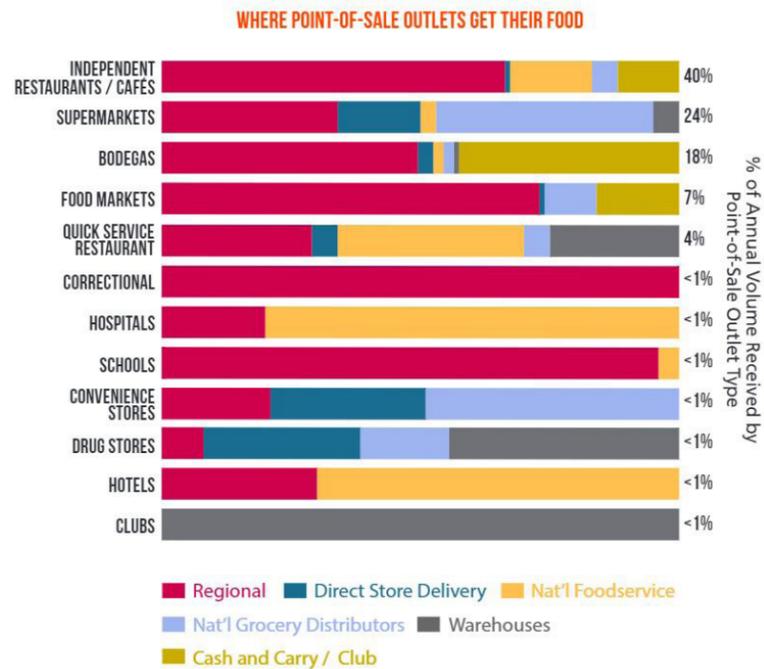


The sprawling wholesale market employs 8,500 workers and caters to a clientele composed largely of independent restaurants. College Point, Queens and Sunset Park, Brooklyn are home to the next largest food distribution hubs in the five boroughs, supplying 0.6 billion pounds and 0.3 billion pounds of food, respectively. (Who feeds 19 million New Yorkers every day? | The Counter, 2019) The city expects the number of point-of-sale venues to exceed 50,000 by 2025, with an accompanying increase in the labor force, including more production and more service workers. (Research and Markets, 2020) We sought to identify the causes of food insecurity and the geographic distribution of food insecure people in New York City. To do this, we looked into the food distribution system in the city.



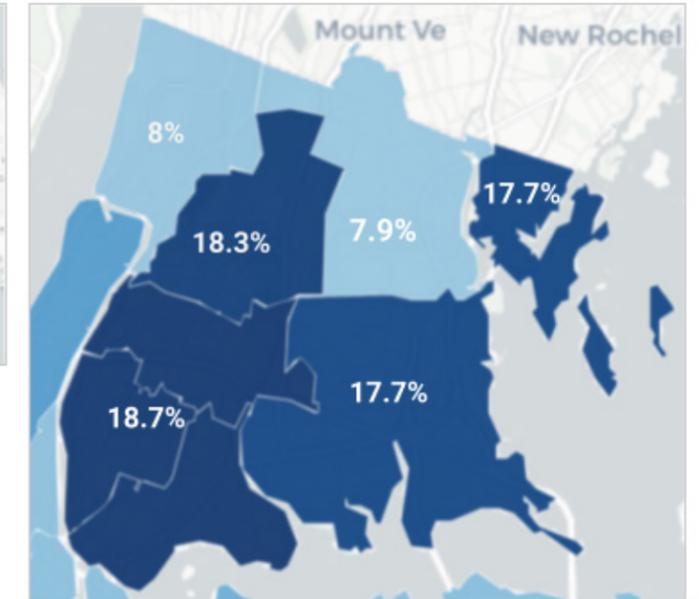
Figure 1: This chart is from the Five Borough Food Flow 2016 report from the NYCEDC and shows the breakdown of where different types of distributors send their food. From this chart we see that over 65% of the city's food comes from regional distributors and cash and carry distributors.

Where Point-of-Sale Outlets Get Their Food?



Food Insecurity (2016)

People who sometimes did not have enough food at some point in 2016, by NTA



Source: New York City Council (2019)

This diagram is from the same report and shows the breakdown of where point of sale outlets get their food. We can see supermarkets, restaurants and bodegas get a majority of the food and they account for more than 80% of the food coming into the city. (Urban Food Policy, 2016) Aside from restaurants, supermarkets are responsible for the largest portion of food distribution to the consumer. About 24% of food consumed by New Yorkers is purchased at supermarkets.

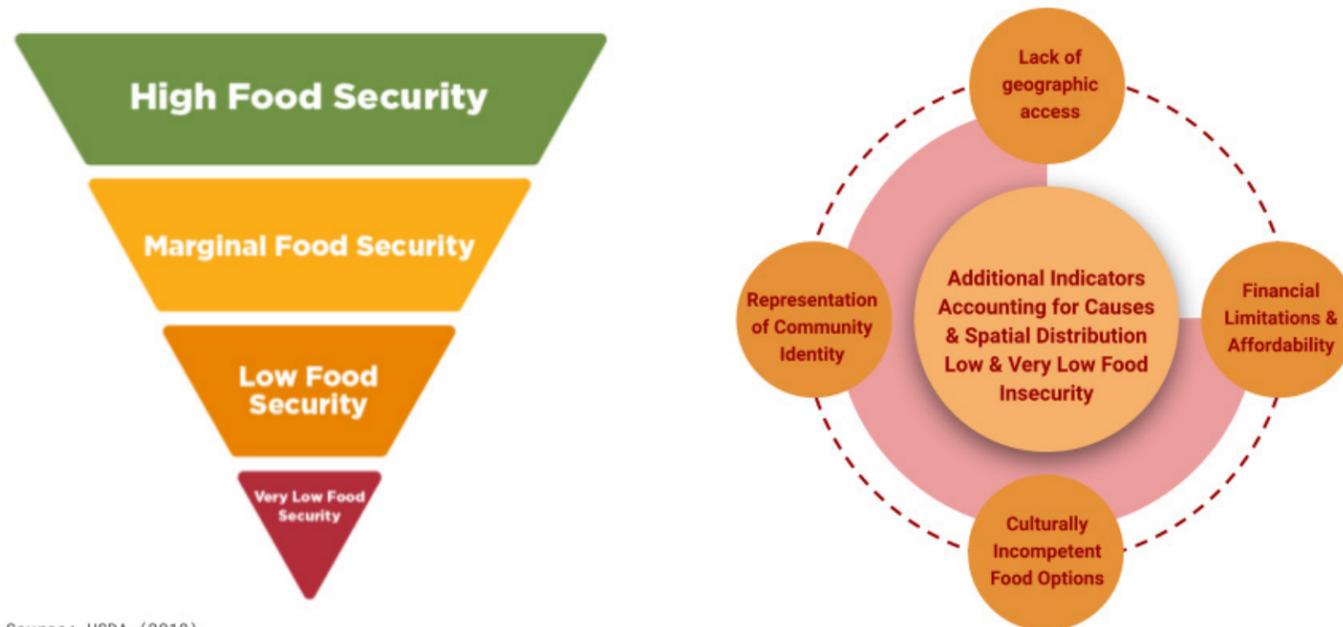
Chain supermarkets are the second highest source of food volume despite having far fewer stores relative to other point-of-sale channels. There are over 10,000 independent bodegas but only 100 chain convenience stores. Consumers access more food through the school system each year than through club stores (i.e., Costco). (Five Borough Food Flow 2016 report)

This map from the Mapping Food Access project shows the location of point of sale food outlets overlaid onto a base map of the concentration of poverty. From this map, it would appear that Queens and Staten Island have far fewer point-of-sale locations than the other boroughs, which would imply that food insecurity is highest there if the distribution of Access Points was the best predictor of this issue.

Context of Food Insecurity in NYC

Every year prior to the pandemic, New Yorkers missed 185 million meals altogether due to food insecurity. Around 13% of New York City residents experience some level of food insecurity, which equates to more than a million people. During the COVID-19 pandemic, food insecurity has become even worse in both frequency and severity, with nearly three quarters of food pantries and soup kitchens having reported an increase in the overall number of visitors compared to the previous year. Over the same period, 3 in 4 emergency food providers that have closed are in communities with the largest Meal Gaps. (Fighting More Than COVID-19 - Food Bank For New York City, 2020)

With these conclusions in mind, our definition of food insecurity must be expanded to account for its causes and its spatial distribution. On top of our original definition, we now clarify that the reduction in food access for food insecure people may be caused by a lack of geographic access, financial limitations, culturally incompetent food options, and/or other factors. In reality, we recognize that there are likely multiple factors at play and that these factors may not be consistent across geographic regions. Additionally, although people across New York City experience food insecurity, this is a problem that is highly correlated with existing spatial inequities along lines of race/ethnicity, class, mobility, and other identities.

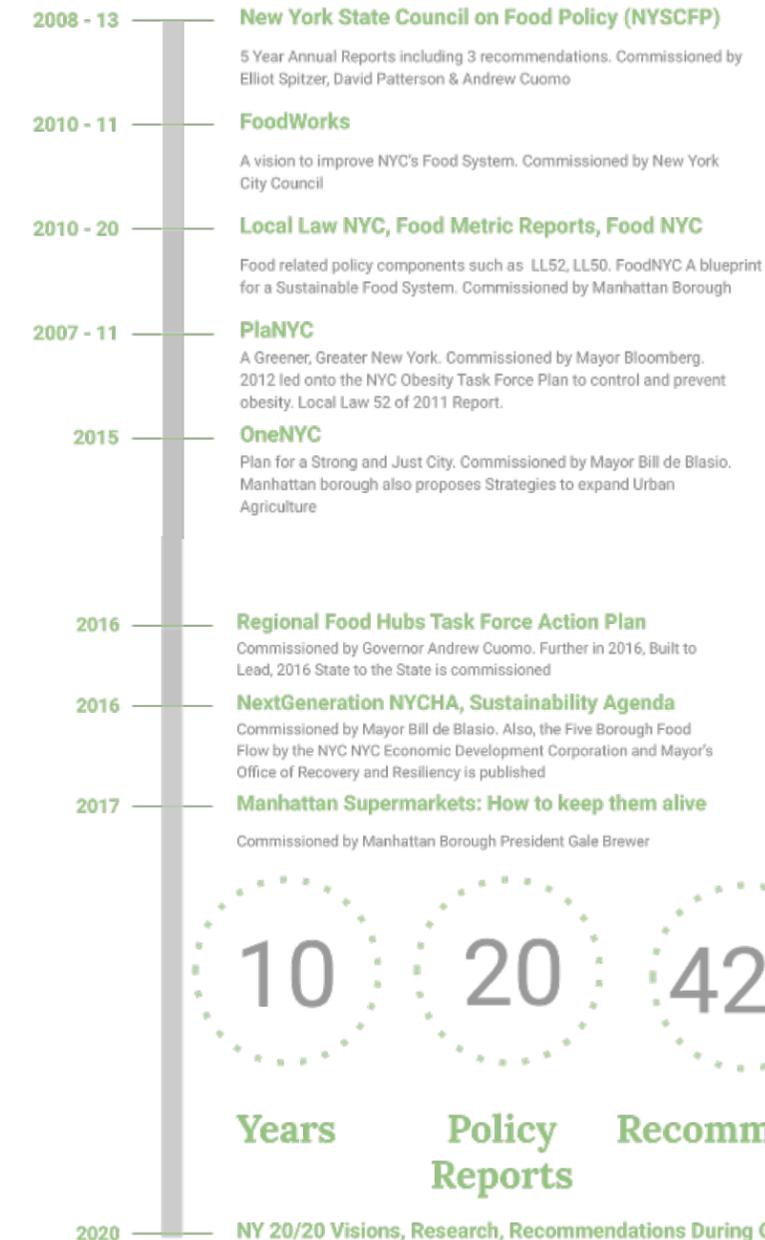


Source: USDA (2019)

Food Policy Overview & Actors

Other Influential Food Policies

Major Public Report Updates on Food Policy Prepared by NYC and State Officials, 2008 - 2018



Source: 2020 Food Metrics Report, Link: <https://www1.nyc.gov/site/foodpolicy/index.page>



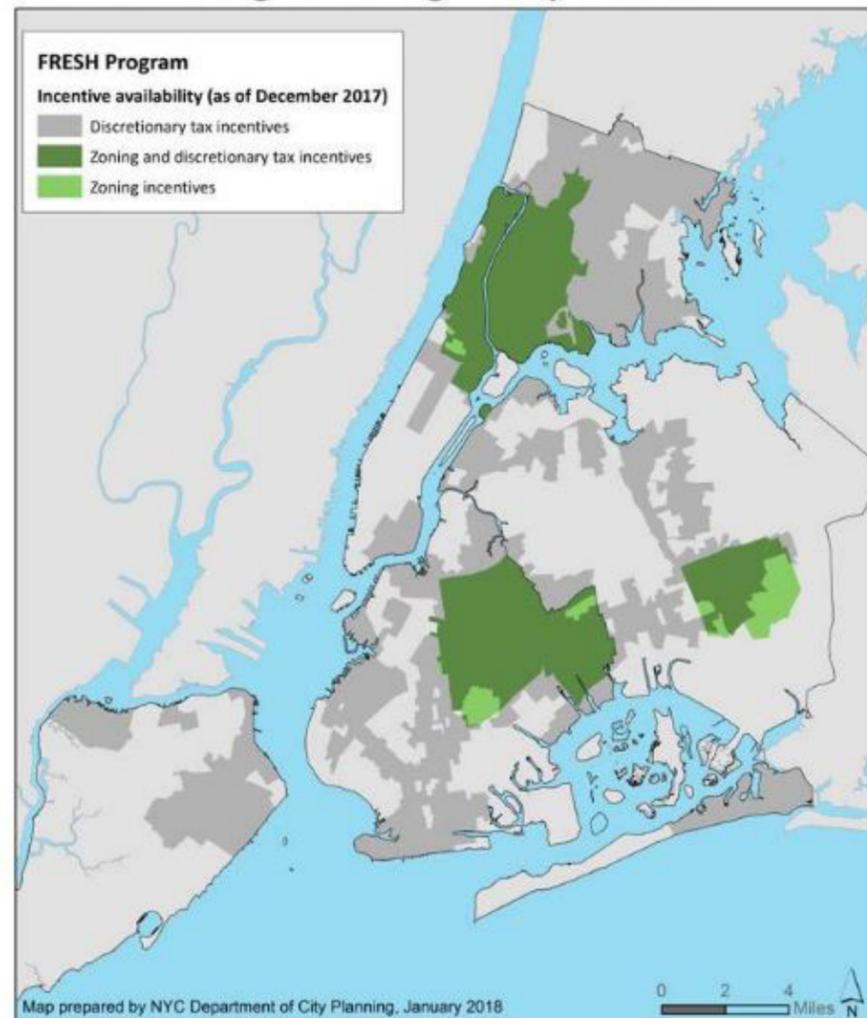
Source: Hunter College New York Food Policy Center, Link: <https://www.nycfoodpolicy.org/>

City FRESH

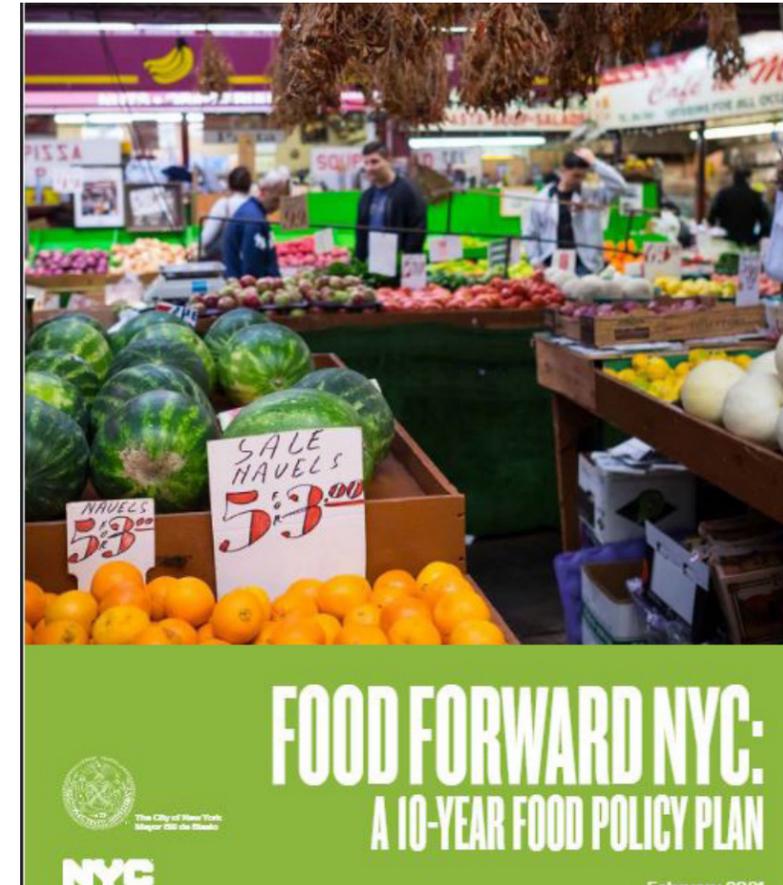
City FRESH, also known as the Food Retail Expansion to Support Health program, is one of New York's key programs aimed at addressing access to healthy food. The program offers financial and zoning incentives in certain neighborhoods for developers who build grocery stores that must designate a certain percentage of their floor space to selling fresh produce, among other requirements.

This program gets a lot of praise for its unique strategy to create new grocery stores and expand access to healthy foods. However, it has two main shortcomings in the context of food insecurity. First, although the entire South Bronx has been designated as a City FRESH zone, there has yet to be a single new grocery store built anywhere there through this program. All 8 completed City FRESH stores are in Brooklyn, where food insecurity is much lower. The other issue is that City FRESH does not necessarily guarantee affordability. Many of the new stores are big box retailers like Whole Foods and Trader Joes, which are neither affordable nor culturally competent in many neighborhoods.

FRESH Program Eligibility Areas



The 10 Year Food Plan - For New York



The Mayor's Office of Food Policy (MOFP) announced the release of the City's first ever 10-Year Food Policy Plan, "Food Forward NYC," a comprehensive framework for a more racially and economically equitable, sustainable and healthy food system for all New Yorkers that addresses the profound social, economic, health, and environmental challenges currently facing our city. (Food Forward NYC: City Releases 10-Year Food Policy Plan, 2021)

Food Forward NYC emphasizes the importance of choice - enabling a food system where everyone should be able to access the food they want wherever they may want it.

Food Forward NYC is organized around five overarching goals:

1. All New Yorkers have multiple ways to access healthy, affordable, and culturally appropriate food.
2. New York City's food economy drives economic opportunity and provides good jobs.
3. The supply chains that feed New York City are modern, efficient, and resilient.
4. New York City's food is produced, distributed, and disposed of sustainably.
5. Support the systems and knowledge to implement the 10-year food policy plan.

The Bronx & Food Insecurity

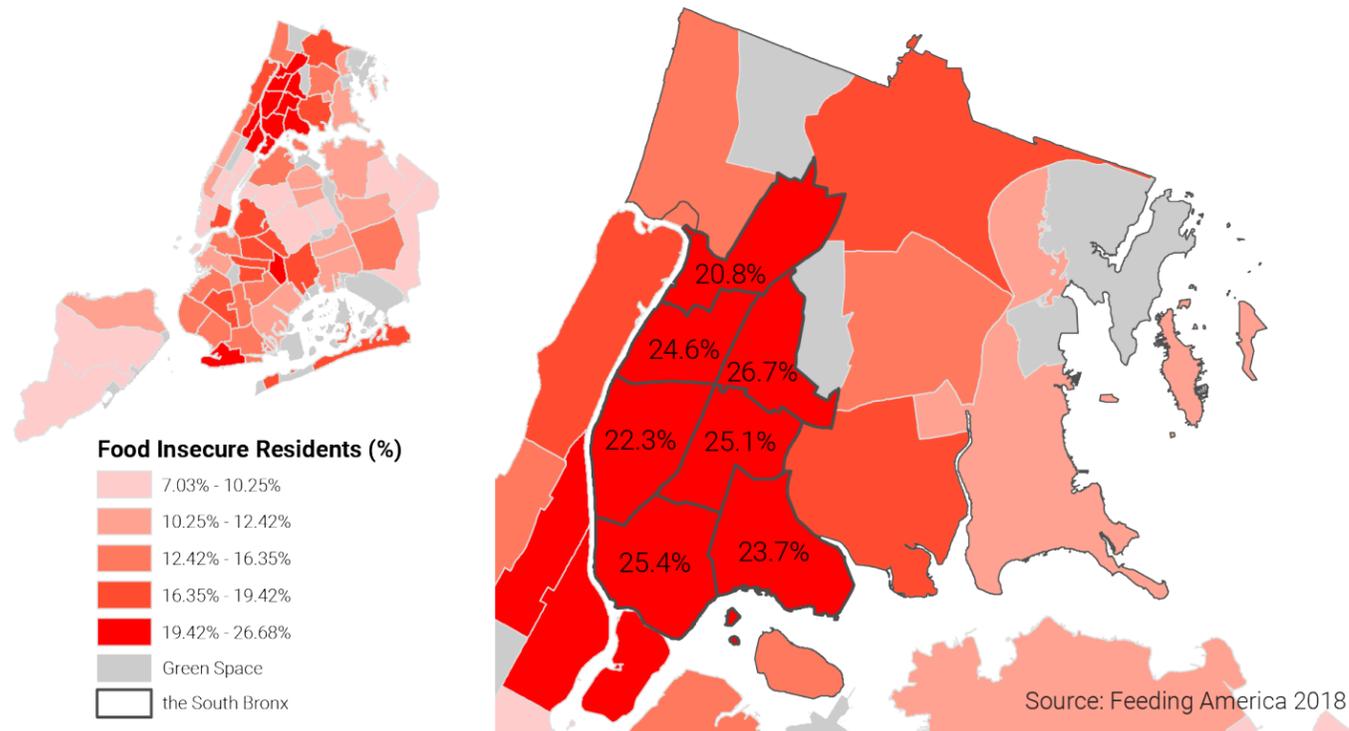
Demographics

Food insecurity is a complex topic that cuts across issues of wealth and race. The South Bronx is part of New York's 16th Congressional District, one of the five poorest Congressional Districts in the United States. The South Bronx has been historically a place for working class families.

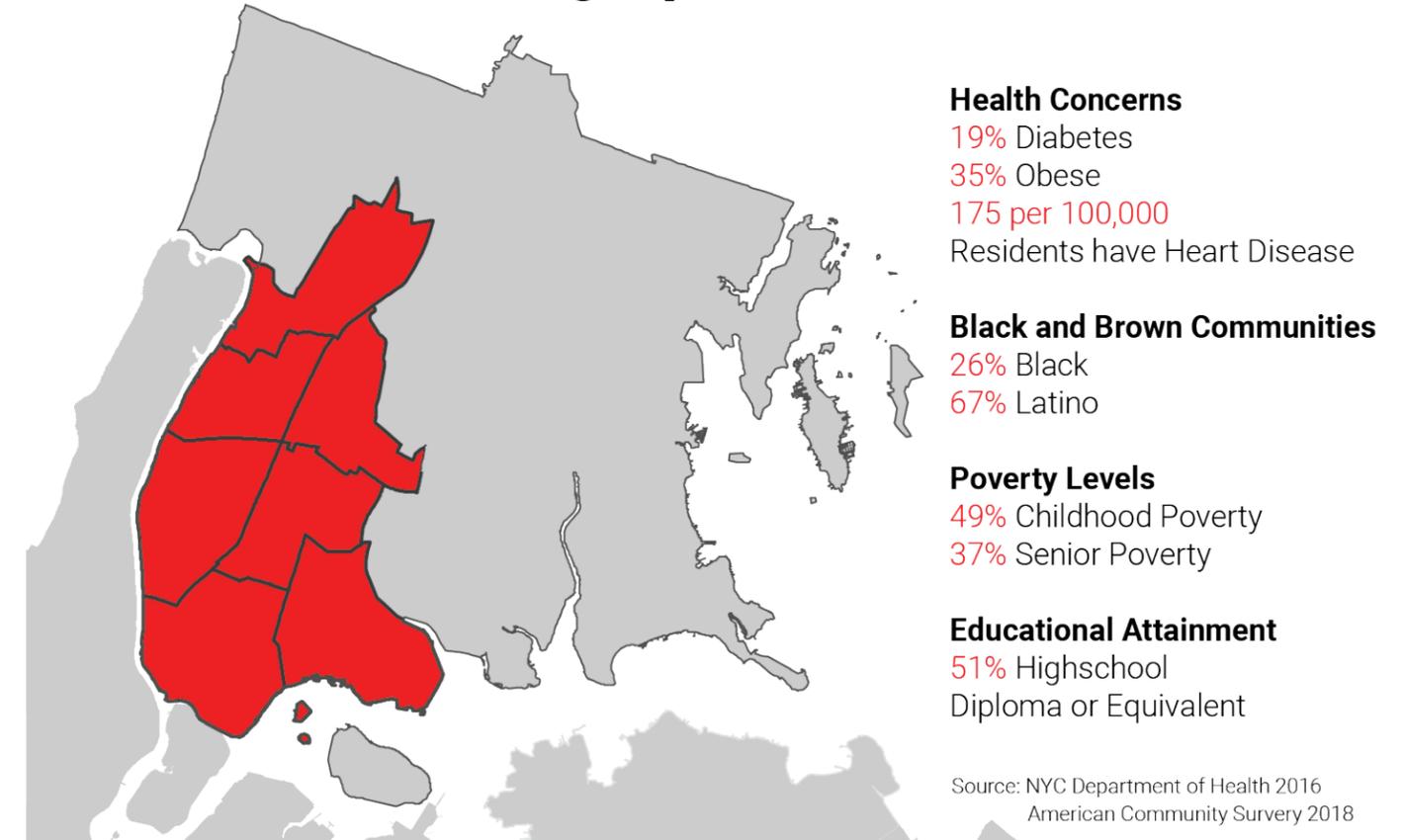
We then began to think about what some of the barriers to access might be? We see from the map on the right that the South Bronx has the highest proportion of food insecurity in the city, and therefore we wanted to investigate contributing factors.

As a result of these communities being historically marginalized we find poorer health and economic outcomes which we believe exacerbates the problem of food insecurity. The residents of the South Bronx suffer from higher levels of obesity, diabetes and heart disease than the rest of New York City.

Food Insecurity in the Bronx



Health and Demographics in the South Bronx



Current Food Support & Actors

Hunts Point

Although food insecurity is widespread in the South Bronx, in fact, the South Bronx has the largest Food Distribution Center (FDC) in the world. The sprawling Hunts Point Food Distribution Center is a 329-acre site owned by the New York City Economic Development Corporation (NYCEDC), hosts 155 wholesalers, directly employs 8,500 people, and handles 4.5 billion pounds of food each year. Almost 13,000 trucks travel into and out of the Hunts Point FDC every day. About 60 percent of the city's produce and nearly half of the city's meat and fish pass through Hunts Point. (Hunts Point Peninsula, 2016)

The Hunts Point Food Distribution Center in the Bronx consists of three independent cooperative markets: the Hunts Point Cooperative Meat Market, the Hunts Point Terminal Produce Market, and the New Fulton Fish Market.

The produce market is a 112 acres site. It supplies 60% of the produce for New York City. The terminal produce market sits on 113 acres of land. Wholesale business operations occur within four main buildings—rows A through D—with the produce trade occurring along with the platform floors, which run parallel to one another like the tines of a fork. The Fulton Fish Market was originally a wing of the Fulton Market, established in 1822 to sell various foodstuffs and produce. In November 2005, the Fish Market relocated to a new facility in Hunts Point in the Bronx. It is the largest consortium of seafood wholesalers in the US and handles about one-third of New York's total seafood demand.

The food distribution center is mainly surrounded by industrial parts, and most of the residential parts are isolated from the expressway, which reduces the connection between the community residents and the food distribution center. As a result, the Hunts Point peninsula is geographically isolated from the local communities. Compared with other further places, the residents of Hunts Point are close to the largest FDC in the world, but they may get less opportunities to access food.



Image: Hunts Point Food Distribution Center Layout (Source: New York City Economic Development Corporation)

II. Defining The Problem Statement

The Pandemic and Current Times Today

Despite the fact that the city has paid great attention to increasing healthy point-of-sale locations in the South Bronx it is still by far the most food insecure community in New York City. As a result, we concluded that singularly increasing point-of-sale access is not sufficient to meaningfully reduce food insecurity in the South Bronx.

This brings us to the problem statement our team created to guide our research:

What are the gaps in food access in the South Bronx? What changes are needed at the community, organizational and policy levels to alleviate food insecurity at the community scale?

As we move through our research and recommendations, this geographic scale and conceptual framework are the foundations of our work.



What is a Food Hub?

The National Food Hub Collaboration defines a regional food hub as “a business or organization that actively manages the aggregation, distribution, and marketing of source-identified food products primarily from local and regional producers to strengthen their ability to satisfy wholesale, retail, and institutional demands.”

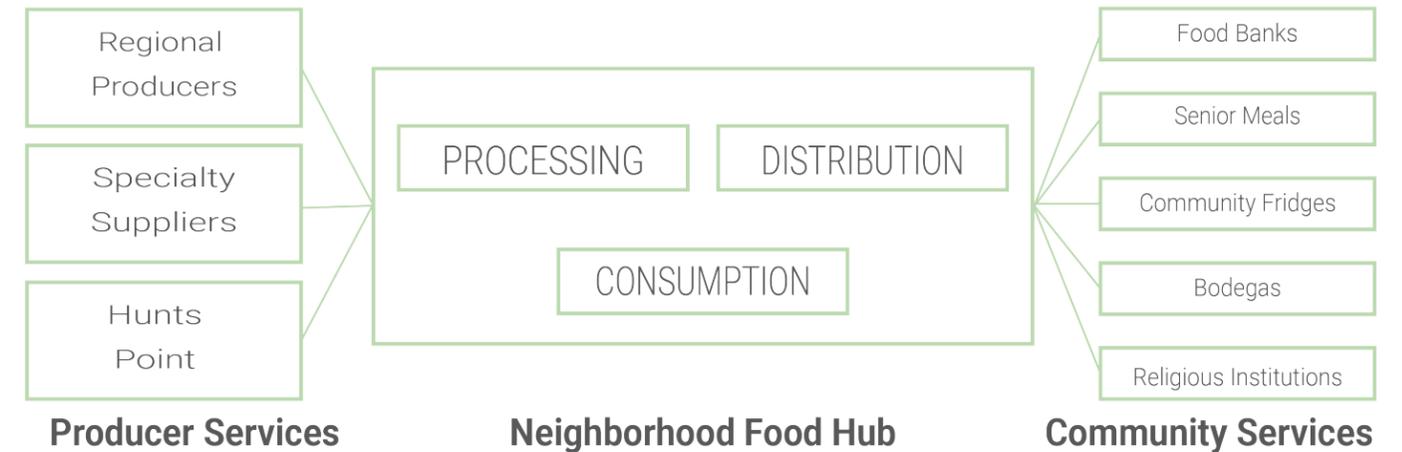
Building off of that definition. We define a neighborhood food hub as a community led institution that provides missing infrastructure, such as a kitchen, storage, and community space, to support food security in communities. It works by actively linking regional producers with food entrepreneurs and emergency service providers, such as food pantries and food banks. By utilizing a hub and spoke model, the food hub can serve a variety of different community needs. Food hubs bring together several different community members to harness their collective power to shape their neighborhood's access to food.



A neighborhood food hub is a community led institution that provides missing infrastructure, such as a kitchen, storage, and community space, to support food security in communities. It works by actively linking regional producers with food entrepreneurs and emergency service providers, such as food pantries and food banks. By utilizing a hub and spoke model, the food hub can serve a variety of different community needs.

Why is it equitable?

Food insecurity is a complex, multifaceted issue. Food insecure folks may have difficulty getting the food they need based on many challenges - spatial and/or temporal access, affordability, cultural competency, and quality are just a few. A successful neighborhood food hub addresses all of these concerns in an interrelated fashion.



Vendor selection must be chosen based on community needs and preferences. Concerns around affordability and cultural competency may be further addressed by giving preferential access to locally-owned businesses over national and regional chains.

The location of the food hub and any satellite sites should be determined by the community based on their access to transportation and preferred commuting patterns.

Hours of operation must likewise be responsive to a variety of needs; residents working different shifts and with varying responsibilities at all times of day and night should still be able to access the benefits the food hub offers.

Through a multifaceted approach, NFHs target issues of food insecurity through a variety of means. Unlike other solutions that focus primarily on only one aspect of the food system - consider City FRESH, for example - NFHs inherently recognize that food insecurity must be addressed at a variety of levels simultaneously. Through democratic community control over location, hours of operation, vendor selection, affordability, and cultural responsiveness, a food hub in the South Bronx has the potential to radically transform the means through which residents access food and mitigate many issues of food inequity at once.

How Can Land Use Policies Help?

Many zoning incentives exist to promote different aspects of a neighborhood food hub. Because a NFH sits at the intersection of Industrial and commercial space, parts of both FRESH and IBZ incentives could help make these communal food spaces a reality.

The combined floor area bonuses and tax credits could provide the additional square footage required to make this type of development possible. An important part of the framework to make NFHs feasible and equitable, is to look at long term policies that will contribute to their creations. The combination of FRESH and IBZs could be used to create food superblocks to serve both production and consumption.

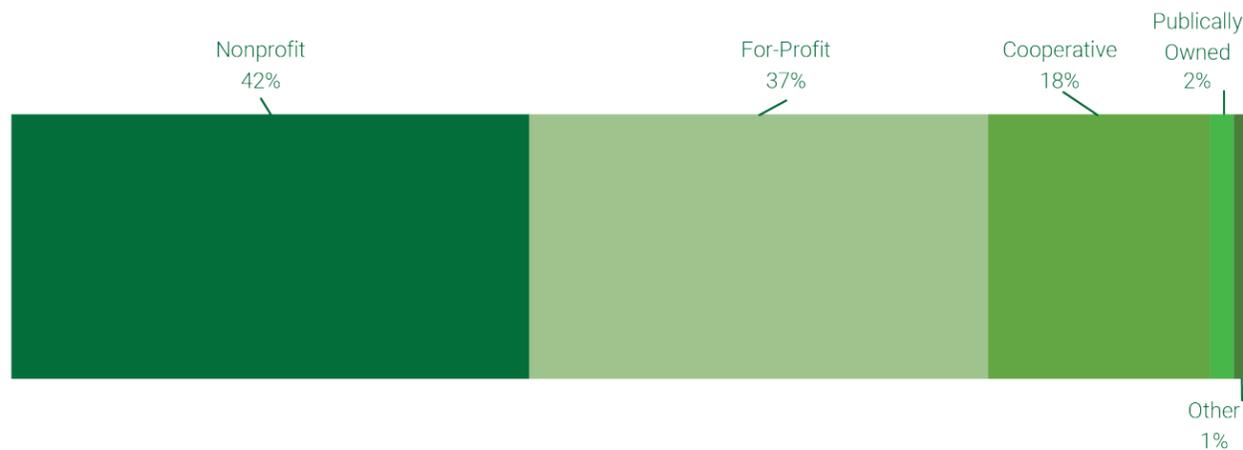
Existing Food Hub Survey

As established above, food hubs can vary widely both physically and socially. One common thread that united all the different food hubs was the focus on bottom-up resiliency.

The National Food Hub Survey conducted by Michigan State University has surveyed 131 food hubs located in the United States. The survey covered a variety of topics related to operations, customer base, missions and values, and future challenges.

Overall, food hubs were found to be economically viable and successful. On average food hubs created 16 jobs per hub, and they linked 78 different producers and suppliers. Furthermore 67% of the food hubs reported breaking even or profitable in terms of financial viability, and of the 9 food hubs with longitudinal data available from previous surveys, they became on average 21% more profitable.

Legal Structure of Food Hub



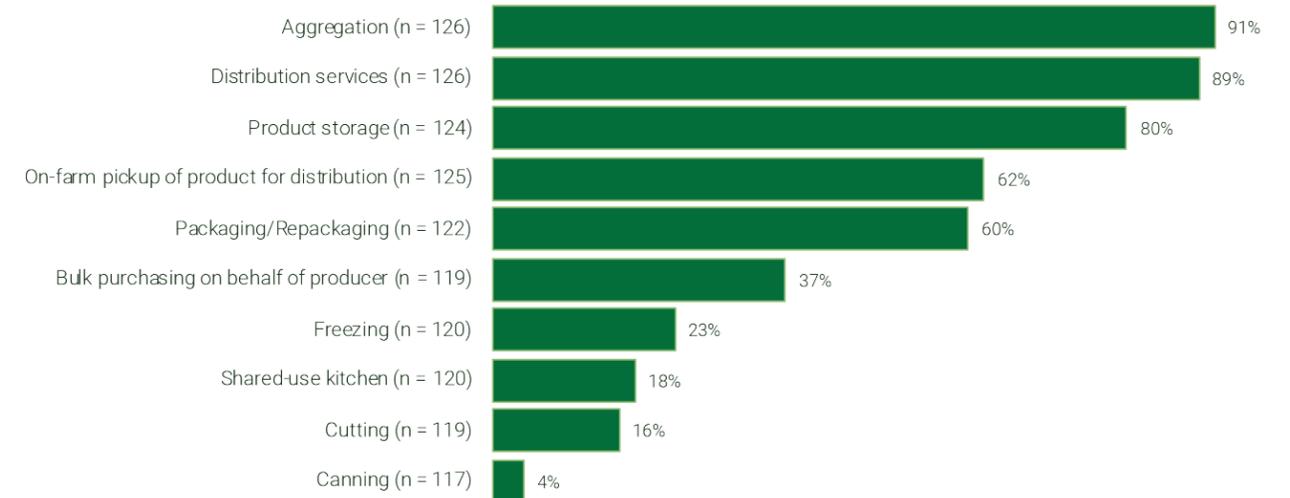
Food hubs vary in their operational characteristics. The 4 main legal structures for food hubs are non-profit, for-profit, cooperatives, and public food hubs. The 3 types of business models that food hubs operate on are selling food wholesale, selling food directly to consumers, or a hybrid of both.

Physical Space in Food Hubs



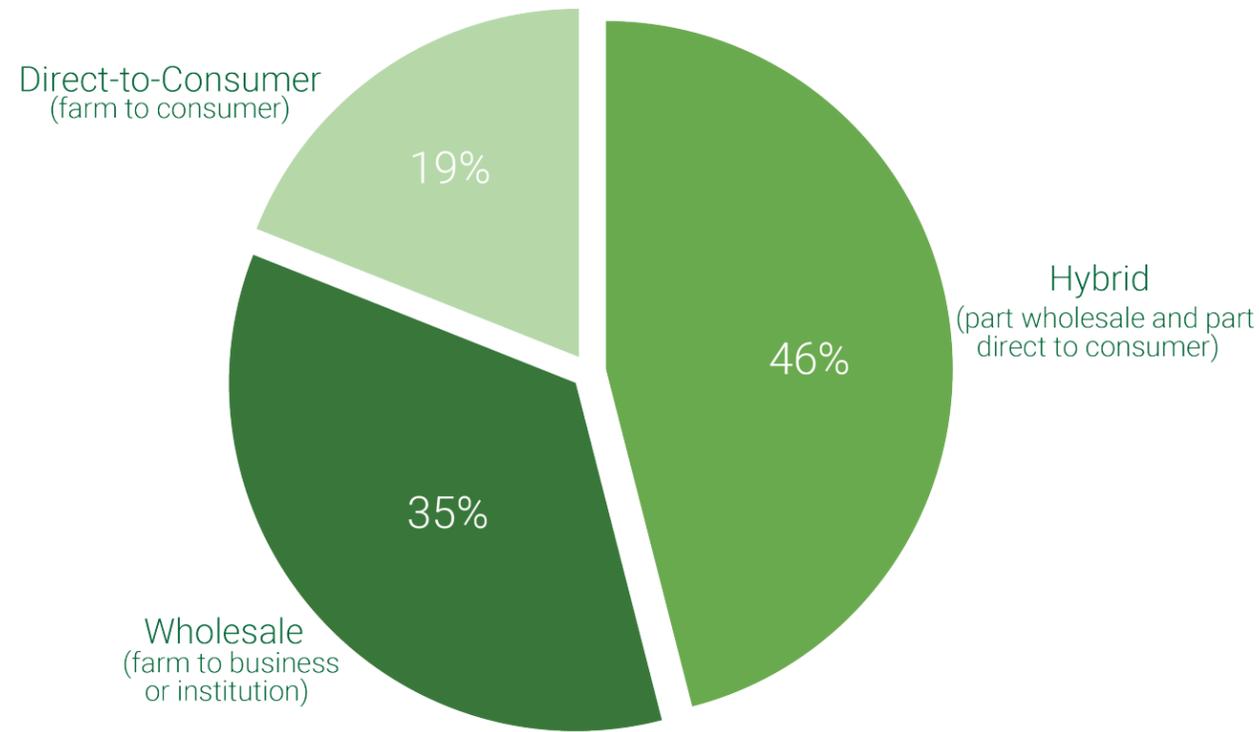
Food hubs contain a wide variety of physical spaces for the conduct of regular operations. There is a notable gap in rental space for other businesses and retail spaces for hubs. The gap in retail spaces for hubs is surprising given that over half of all food hubs sell direct to consumers.

Value-Added Services at Food Hubs

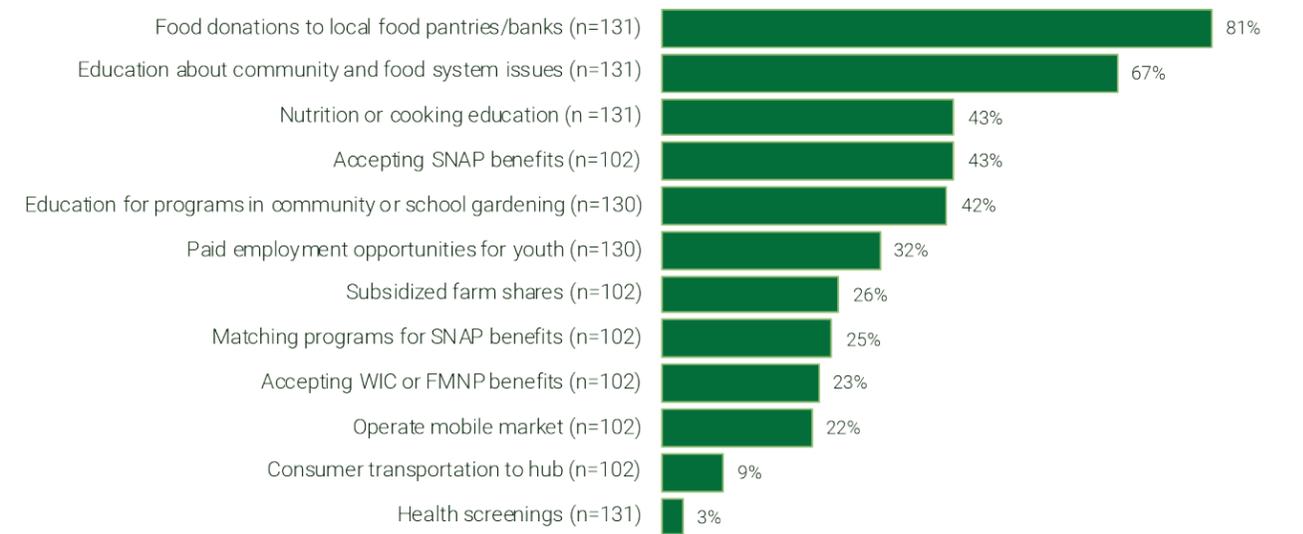


There are low percentages of food hubs with freezing capabilities, shared-use kitchens, and processing capabilities such as cutting and canning.

Business Model at Food Hubs



Social Mission Activities of Hubs



The most common method activity was the donation of food to local pantries/banks. Only 43% accepted SNAP benefits, which can exclude a large number of people from accessing fresh food. Even fewer offer Med matching programs for SNAP benefits or accepted WIC and FMNP benefits. There was little change in overall social mission activity engagement from the 2013 and 2015 surveys to 2017.

76% for food hubs to sell to are restaurants	68% sell direct to consumer
20% consider racial disparities in healthy food access as a strongly related value	44% consider "increasing food access in economically disadvantaged communities" as a strongly related value.

These two values were much more common among non-profit food hubs as opposed to cooperative and for-profit hubs.

Existing Case Studies

As part of developing the framework, we also looked at food hubs in urban contexts as case studies for what elements would be useful. The three food hubs included are the University of District Columbia (UDC) Urban Food Hubs, the Central Brooklyn Food Co-op, and the Common Market Model originating in Philadelphia.

UDC Urban Food Hubs

Located in Washington D.C., the 5 food hubs are situated on UDC College of Agriculture, Urban Sustainability, and Environmental Sciences (CAUSES) land grant centers. The city is highly segregated along lines of class and race, with food access following such segregation. The city is organized into 8 wards, and Wards 5, 7, and 8 have the lowest median income levels and 34% of the population, but less than 10% of the city's grocery stores are located there (O'Hara 2017).

As part of CAUSES mission to improve the quality of life and economic opportunity of people and communities in D.C., the school set out to decentralize the food infrastructure and alleviate food deserts in marginalized neighborhoods.

Goals for the UDC Urban Food Hubs

1. Increase urban food production
2. Establish local food processing and food preparation to add value to locally grown food
3. Expand food related business opportunities
4. Improve nutritional health through innovative distribution



Urban food production was primarily through intensive urban agriculture in high-density neighborhoods. One aspect of the food production was through roof gardens, greenhouses, and hydroponic farming to operate and produce food within limited space. The other production site used for the hubs included community gardens available to residents. As part of capacity building around food hubs, the school offered demonstrations of the various farming techniques used to the community (O'Hara 2017).

The Food preparation component is focused on nutrition education and value added services, which primarily take place in each food hub's community kitchens. The community kitchens are open to be leased by residents to launch catering businesses or to conduct food processing activities. They are also sites for cooking demonstrations and food processing techniques. Furthermore, the urban food hubs partner with community institutions such as churches, community centers, and schools to give residents easy access to the kitchens. A kitchen of the Ward 3 food hub is shown below (O'Hara 2017).

The food distribution strategy is a multi-pronged approach. The food hubs directly support farmers' markets in underserved areas and provide food to neighborhood stores and restaurants. Produce trucks are used to reach food deserts. As part of the goal of connecting producers and consumers, the food hub carries out the following tasks:

- Conducts focus groups
- Carries out business planning and data analysis
- Creates culturally appropriate marketing and finance strategies.

Furthermore, the food hubs collaborate with food banks through gleaning agreements and food collections. The 4 successful strategies that CAUSES found key to distribution are:

- Support services and training to launch food related businesses
- Support local food retail through local and mobile markets
- Web-based portal and networking tool to link food producers, processors, and buyers
- Market research to assess opportunities in the food and hospitality industries (O'Hara 2017).

Existing Case Studies

Central Brooklyn Food Co-op

The Central Brooklyn Food Co-op (CBFC), while its storefront is not yet operational, provides an example of values to base the framework off of. Based in the Central Brooklyn Region, it aims to serve the Bedford-Stuyvesant, North Crown Heights, and the surrounding low- and moderate- income neighborhoods of color. It is a Black-led community project to increase access to affordable and fresh food to economically disinvested communities. The CBFC is rooted in the models and history of previous Black Cooperative Economics (Central Brooklyn Food Coop n.d.).

The co-op aims to transform the local food system by maintaining a pipeline to local, sustainable, and affordable food. This is done through promoting and prioritizing relationships with local farms, farmers of color, and socially responsible corporate citizens. Furthermore, it seeks to reduce food access disparities through serving as a skill-sharing and education hub to learn about food nutrition, food systems, and overcoming disparities in food. The co-op operates on a membership model, where any resident can sign up to become a member. Once a member, they will be able to access the food and resources the co-op has to offer, but they are also required to volunteer time to help run the co-op as part of the membership. This helps keep food costs low to ensure residents can afford the food (Central Brooklyn Food Coop n.d.).

The CBFC has many values that guide its goals, operations, and plans that are useful in developing our food hub framework. First and foremost, the CBFC promotes openness and accessibility to all people regardless of race, ethnicity, gender, age, economic status, religion, ability status, and sexual orientation. In addition, the co-op is built with self-determination and community building in mind. This involves institutionalizing representative leadership that reflects the low-income communities of color in Central Brooklyn. Lastly, the CBFC upholds transparency in leadership and decision-making to all members (Central Brooklyn Food Coop n.d.).



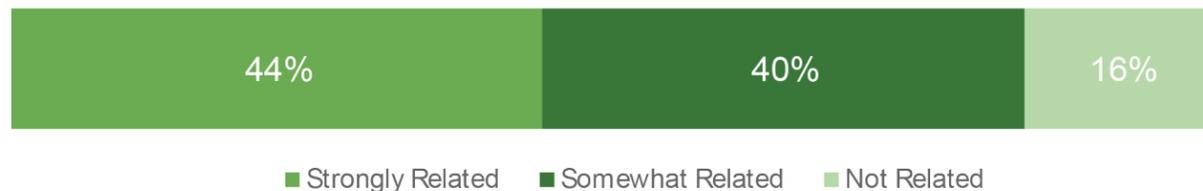
***III.
Designing a
Conceptual
Framework for a
Neighborhood
Food Hub***

Equity

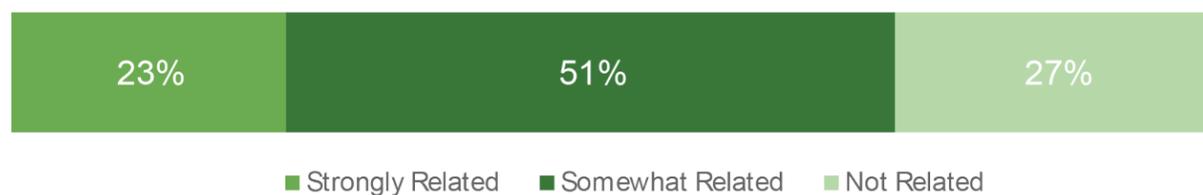
Food justice cannot be achieved without racial justice. The two are inextricably linked and deeply rooted in the racism that pervades the history of agriculture and food access in the United States. (Appel, 2020) More than 375,000 people in the Bronx experience food insecurity, representing 26% of the city's total food insecure population. (Addressing Food Insecurity in the Bronx, 2018)

From the National Food Hub surveys in 2017, 2015, and 2013, the number of food hubs with missions dedicated to racial and economic equity have been consistently low. The percentage of food hubs with explicit values dedicated to justice and human health were less than 15% in 2013. From the 2017 survey, the percent of food hubs with a strong commitment to racial disparities in food access was 20%, and the percent for hubs with a strong commitment to food access in economically disadvantaged communities at 44%. Furthermore, when looking at equity in other aspects of the food hub, only 23% of food hubs are strongly committed to increasing minority suppliers' and producers' access to the market (Hardy et al 2018).

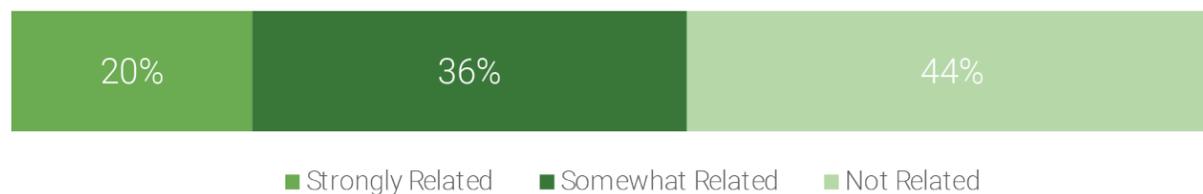
Increasing Healthy of fresh food access to economically disadvantaged communities (n=129)
to economically disadvantaged communities (n=129)



Increasing minority producers/suppliers' access to markets(n=129)



Addressing racial disparities through access to healthy food (n=129)



As a response to the low numbers in the 2017 survey, Race Forward investigated the topic of racial equity in food hubs further by speaking to food hub operators and staff, and it found that while many food hubs stated a commitment to equity, they did not have an equity in all aspects approach to live up to their goals. Race Forward found that there were apparent gaps in hiring, community and social services, production, serving marginalized groups within the community, and community governance (Jones et al 2018).



Our Food Hub Framework caters to systematically being inclusive of community stakeholders and operational components within an equitable framework based on community feedback and local engagement toward establishing the Food Hub to be an active third place with a strong connection, administering social functions needed by and for the community.

Methodology

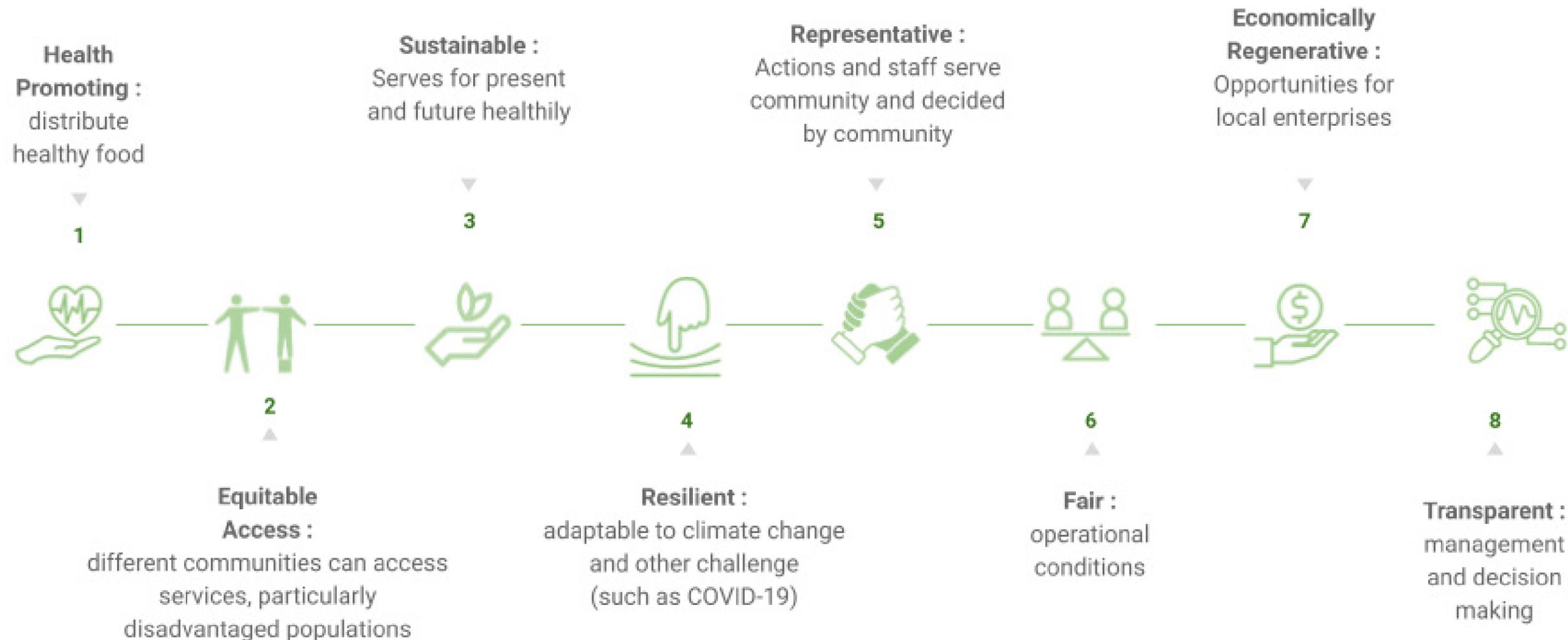
The framework provided below is based on the findings from Race Forward's Racial Equity Implementation Guide for Food Hubs and the University of Kansas Center for Community Health and Development's Community Toolbox. This framework serves as a transferable and modifiable framework for food hubs to implement with the explicit goals of equitably increasing food access in communities.

Guiding Principles

As part of establishing a food hub aimed at to improve food access and health equitably in the South Bronx, we identified 7 guiding principles to base the decisions and operations of the food hub around:

1. Health Promoting - it will be primarily focused on providing a diverse range of healthy, affordable food and nutrition resources to the community.
2. Equitable Access - the hub will make sure that community members and users of the hub are able to afford and utilize its resources equitably along lines of race, class, gender, ability, sexual orientation.
3. Sustainable - the food hub will assist the needs of the community in the present as well as become a community food resource for future generations.

4. Resilient - the food hub will serve as a dependable resource for the community in the face of shocks to the food system
5. Representational - the food hub will represent interests and diversity of the community in all aspects such as leadership, employment, and supply
6. Fair Opportunity - the food hub operates based on equitable hiring practices and supplier/producer relationships
7. Economically Regenerative - the food hub serves as a tool for the community to create value in their skills, assets, and resources
8. Transparency - the food hub's decisions, operations and initiatives will be clearly communicated to the stakeholders and general residents at all stages for accountability



Mission & Goals

The South Bronx food hub should be a community driven food support site serving all residents in the Hunts Point Neighborhood and larger Bronx Community. Its mission should be to ensure access to fresh, healthy, and affordable food and food centered opportunities with a focus on low to moderate income communities in the South Bronx.

Goals:

1. Provide fresh, healthy, affordable food to communities in the South Bronx
2. Create food-centric opportunities for residents in the South Bronx
3. Provide food and opportunities equitably across lines of race, class, gender, age, and ability
4. Mobilize broad community partners that reflect the diversity of the South Bronx to address with food access

Our Food Hub Framework caters to systematically being inclusive of community stakeholders and operational components within an equitable framework based on feedback and local engagement toward establishing the Food Hub to be an active third place with a strong connection, administering social functions needed by and for the community.



Additionally, our framework aims to also serve as a transferable and modifiable framework for food hubs to implement these explicit goals of equitably increasing food access in communities, resting on the foundation of communication, collaboration and empathy.

Recommended Strategies

The equity framework establishes four major touch points of action on how the Food Hub aims to work as a third place.

- **Inclusive leadership.**

Leadership promotes food democracy in the community

The hub empowers all members of the community to shape their food system.

- **Financing network**

Money generated is only to run operations.

Profits, resources, and connections are used for regenerative investments within the community.

The hub bolsters food assistance organizations in increasing access to affordability, support local enterprises, and provide development of skills and education within the community.

- **Cultural competency.**

The food hub serves as a site for mutual growth, cultural exchanges, and provision for culturally relevant produce.

The hub offers services such as community kitchens organizing local favorites food events, educational workshops on nutrition and healthy food constitution awareness, cooking experience workshops and food kiosks enabling local authentic recipe exchanges.

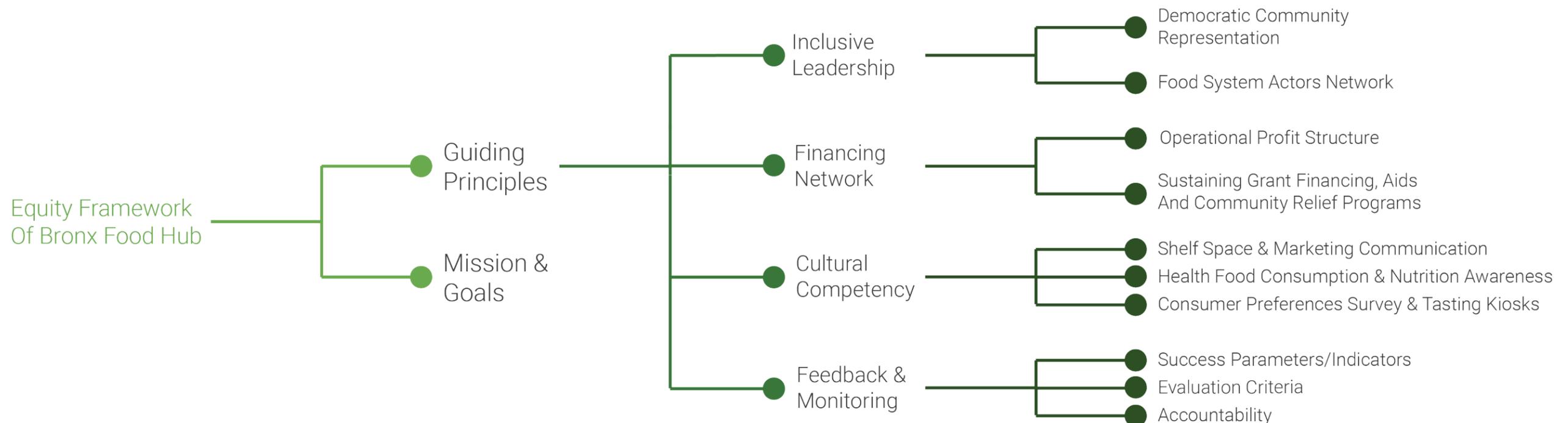
- **Feedback & Monitoring**

Composed of an evaluation plan and accountability measures

Evaluation plan seeks to determine if hub is successful in food security and equity utilizing process and outcome measures

Accountability measures makes sure the food hub is beholden to the community

Feedback component includes input from staff, customers, stakeholders, and Community members



Community Driven Decision Making

Agenda:

Safeguarding the maintenance and continued management of neighborhood Food Hubs, such as the Bronx Food hub proposed in New York City through a democratically represented Leadership Board, inclusive of the diverse community representation.

The Bronx Food Policy Councils or a neighborhood level food hub board has the potential to convene multiple food system stakeholders (producers, processors, distributors, government and consumers) to provide a forum for the comprehensive examination of a food system, its strengths, weaknesses, opportunities, and challenges at the systemic level as well as networking across the hub and spokes of the food supply chain. Furthermore, due to the scale of the Food Hub Board's work, it gives rise to the opportunity for community members to hold active leadership and membership positions to ensure collaboration from the management level of the Food Hub.

The Food Hub Board shall enable different actors in the food system, while being inclusive of community representation and government, to learn more about what each does and to consider how the actions of each actor impact others in the food system at the neighborhood level in the Bronx. The councils also provide a mechanism to develop specific policy objectives, e.g., reducing the incidence of hunger, expanding food supply related economic development, and improving the administration of community food programs.

Additionally, they can provide a forum to discuss emerging issues such as local foods, direct marketing, small and medium-scale food enterprises, and urban agriculture initiatives in the neighborhood. The integration of the community members of the neighborhood shall be actively adopted through the following decision making power and positions held by the Bronx Food Hub Board:

1.1

Organizational Structure

A core mission of the Food Hub Board shall be to promote food democracy and empower all members of the community to shape their food system. In a food democracy, a community strives to improve the food system for all and provide affordable, accessible, and nutritious food for everyone regardless of age, race, ethnicity, sex, or socioeconomic status. The Board is also an organization of stakeholders from different sectors and backgrounds (producers, processors, distributors, government and consumers) who collaborate to assess, make critical operational decisions and improve their local food system's effectiveness and outreach to the local community. Their goals include reducing hunger, promoting healthy foods, and strengthening the local food community enterprises.

1.2

Leadership and Management

Establishing the roles and responsibilities as prescribed by the policy shall be consistent with the vision formulated by the democratically elected Food Hub Board, through successfully attaining the following policy goals:

- Formal establishment of the Food Hub Board and marking the 5-year composite strategy to manage the neighborhood scale food hub in South Bronx, NYC
- Conducting an evaluation assessment of all Food Hub Operations, Stakeholder Accountability and Cultural Competence of the food hub in order to record the urgency of attention to action needed, ranked as high, medium and low.
- Create a pooled Community Fund Reserve and allocate funds proportionally for the upliftment of local community scale enterprises as per the evaluation and the 5-year composite vision for South Bronx Food Hub operating at the neighborhood level.
- Establish a Food Hub Rewards Program for participating community members and volunteers registered and contributing to the maintenance and management of the Food Hub and the leadership board.
- Incorporate allied sustainable solutions such as composting, waste management, redistribution of leftover produce and garb-and-go meals etc
- Publish an annual report of progress, success parameters identified towards the 5-Year strategy, funds allocation and evaluation assessment findings to the public.

1.3

Adapting and Implementing Community Interventions/ Decision Making

The Food Hub Board can provide government representatives an opportunity to work with other offices they ordinarily might not. Therefore, they promote inter-agency cooperation and understanding that may help to better coordinate governing food policies. For instance, some food policy councils have aided government institutions that buy food better connect with the agency responsible for promoting the purchase of locally grown food, thus implementing a local food purchasing policy for the government. In addition, Food Hub Board allows for an open and democratic discussion regarding food issues that reflect and represent the needs and opinions of a diverse group of stakeholders, inclusive of the community members residing in the neighborhood. They help educate policy makers, advise the counsel and shape policy to address the needs of local farmers, food producers and retailers, and food consumers. Food councils empower communities to unite behind a common interest - the need to have sustainable, affordable, fresh and nourishing food.



Organizational Structure



Leadership and Management



Adapting and Implementing Community Interventions/Decision Making

Community Support

The food hub should help build up the community just as much as the community supports the hub. In terms of regenerative investments, the food hub should seek to bolster food assistance organizations in increasing access to affordable food, equitably support entrepreneurs and businesses, and provide the development of skills and education within the community.

Food assistance organizations and the food hub framework both aim to help solve food insecurity in their communities, so it should be a natural collaboration for the hub to work with and support organizations like food pantries, community fridges, and soup kitchens. The food hub should seek to learn from these institutions what they need and what the community needs, and from there try to adapt to serve their initiatives. One of the common needs identified from our research and community outreach was the need for cold storage access, which the food hub can provide space for the aforementioned groups to use to store food they intend to donate. Additionally, the food hub can serve as a food source for food assistance groups by connecting them to affordable producers and suppliers or by selling food at a discounted price wholesale to them.

In supporting entrepreneurs and businesses, the food hub should try to increase the entry points into the food system for producers/suppliers of color, low-income producers, and local producers. This also entails developing relationships and connections with businesses that are representative of the community, especially those that seek to regenerate it. For example, the food hub can give discounts to bodegas in the community to stock culturally competent food from low-income farmers of color. The food hub should regularly stock and advertise local products made by the community and low-income or minority producers. Additionally, the physical spaces of the food hub should be available for production, processing, storage, and distribution of food for members of the community in an organized and accessible manner.

Lastly, the food hub should serve as a site for mutual growth, relationship building, and development of skills and value for the whole community. This includes a multitude of services such as community kitchens, mentors and teachers, and educational workshops. The community kitchens should serve as the physical space that residents can use to develop their food production and processing skills or learn from other members of the community. The mentors and teachers should be experts in cooking, diet, and food entrepreneurship that are at least culturally competent if not from the community. They should serve residents that want to learn how to prepare healthy food, sell and market their products, and eat healthier diets. Education should also be accessible through alternative means than in person, such as through phone, social media, websites, and physical deliverables like brochures and flyers.

Individual Consumer Support

Given that one of the main goals of the food hub is to increase access to affordable, fresh food to the community and decentralize food systems, the food hub should operate a number of programs and subsidies to lower the costs of food for residents, especially those who are low income. While the food hub seeks to be generally affordable for most residents within the community, the incentives and subsidies program seeks to help those facing challenges in income or other barriers to healthy food.

One of the primary ways the food hub can improve access to individual residents is by accepting food assistance benefits such as SNAP, WIC, and TANF. As shown by the National Food Hub Surveys, this is not a standard practice among hubs, but it is something that can make the food hub significantly more accessible to low-income people. Even less standard is the matching of SNAP benefits, where consumers get twice the value out of their SNAP benefits at the food hub. This can be essential in not only helping many consumers afford healthy food, but convincing more people to spend their money on healthier foods as opposed to unhealthy options that are more common in low-income communities.

The food hub should implement a method for community residents to obtain food through alternative means, such as the examples provided below. Outside of these specific ideas, the food hub as part of its goals towards equity should seek out programs, discounts, and systems to enable the most people in a community to still be able to access food through their hub.

Examples of Alternative Food Distribution for Individuals

Co-op Style Volunteering	Farm Share Program	Community Fridge and Pantries
<ul style="list-style-type: none"> Residents can volunteer with food hub operations for reduced or free food Reduces operations costs for hub Residents in extreme poverty have more options 	<ul style="list-style-type: none"> People pay a monthly fee for a large amount of predetermined food goods Reduces costs for residents and ensures steady income for hub Can diversify people's diet 	<ul style="list-style-type: none"> Pantries & Fridges around community that anyone can stock and take from Allows community participation in food security Lets people be anonymous

Food Hub Financing

Keeping regenerative investments in mind, the food hub should seek to bolster food assistance organizations in increasing access to affordability, support local enterprises, and provide development of skills and education within the community.

Business Model

This framework operates under the assumption that the food hub will be a non-profit food hub. The purpose of the hub is to regenerate and grow the community around it while increasing food access to the people who live there. Any profits generated from the food hub should be going towards improving the hub and helping the community, which is why a non-profit model is most appropriate.

From the 2017 survey, 34% of food hubs were highly reliant on grant funding, 31% were somewhat reliant, and 34% were not reliant at all. For food hubs operating for less than two years, about half of them were highly dependent on grant funding, indicating that the many food hubs need grant funding as an early investment to start up (Hardy et al 2017). As such, the food hub will apply for grants as the primary financial source in its initial years. Throughout the course of its operations, it will also conduct community events for fundraising and donations as supplementary forms of funding.

Cultural Competency

The food hub serves as a site for mutual growth, cultural exchanges, and provision for culturally relevant produce for the whole community. This includes a multitude of services such as community kitchens organizing local favorites food events, educational workshops on nutrition and healthy food constitution awareness, cooking experience workshops and food kiosks enabling local authentic recipe exchanges.

Supply & Marketing

- Weekly Cultural Food Bar Showcasing
- Excess Produce and Food Redistribution Network - With Community Kitchens, Community Fridges and Religious Institutions
- Availability of culturally associated food produce and items, incorporating festive seasons and visual communication strategies which are culturally relevant
- Banners, Posters, Name Boards to be marketed more authentically for the local crowd and their communication accessibility

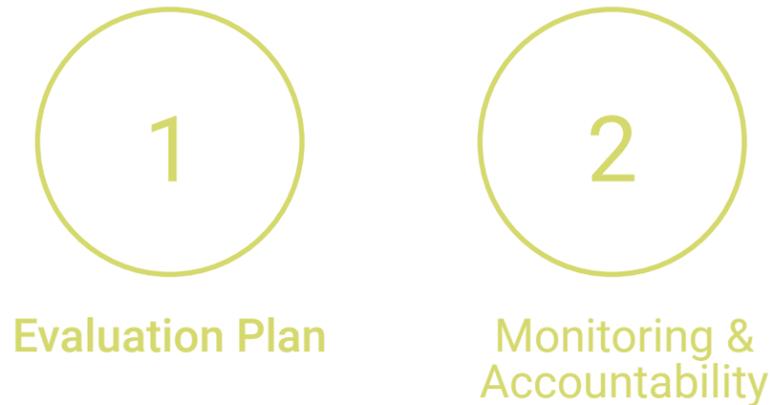
Education & Outreach

- The Food Hub must factor in the current community contribution, along with being supportive of the awareness of food related knowledge systems for the residing demographic to learn, for now and the future.
- Incorporating schools, community learning centers and community level drives to hold workshops on Healthy Foods, Nutrition Security, Local Knowledge Conversations of Cultural Foods
- A awareness drive or community oriented advertisement/ media coverage on the Food Hub's services and provisions
- Cultural Food Knowledge repository drive and narrative collections amid the community members
- Support from the School and University Kitchen to extend to the community for recipe exchange events and cultural food festival



Evaluation, Feedback & Monitoring

As part of the process to ensure that the food hub lives to guiding principles, mission, and goals outlined in this framework and overall serve the needs and health of the community, we have outlined an evaluation plan and a series of accountability measures to keep the food hub aligned with community food needs and equity



1 Evaluation Plan

For a comprehensive evaluation of the food hubs operations and effects on the community, the food hub will utilize process and outcome measures collected through multiple methods involving feedback from staff, customers, stakeholders, and community members as well as traditional operational data.

For the process measures, most of it will be collected as operational data that is readily available with the proper systems (such as requirements for written record keeping by all employees) for keeping track of operations such as, the amount and variety of food sold, the number of community stakeholders involved in food hub planning and operations, and the number of food pantries/banks that have utilized community storage. For a list of process objectives we believe are essential, consult Appendix A.

For process measures that are less objective, the food hub will conduct surveys, focus groups, and interviews with employees, suppliers, stakeholders, customers, and community members to answer questions such as “Does the food hub stock a culturally competent food?” A list of important process objectives to measure are listed in the Appendix A.

To measure the impact of the food hub on the community’s food security, diet, and health, the food hub will conduct surveys, focus groups, and interviews primarily among the customers and community residents. These evaluation methods will gather information to solve the following:

- Has the food hub improved the diet of its surrounding community?
- Has the food hub improved the health status of the surrounding community?
- Have the residents utilizing the food hubs resources been representative of the community in terms of race and income?
- Has the food hub adequately supported food-assistance organizations in the community?

Such indicators to answer the questions related to outcomes can include but are not limited to:

- Health status indicators throughout the food hubs operation including BMI, chronic disease rates, and rates of eating fresh fruits and vegetables within the last week
- Demographic data on the consumer base utilizing the food hubs resources and shopping at the food hub
- The perceptions and beliefs of consumers, community residents, and food-assistance organizations towards the food hub and its services

In addition to the measures, indicators, and questions above identified as essential elements of an evaluation plan, a comprehensive evaluation plan should be developed in conjunction with the community. Residents and food assistance organizations should work together to identify the questions they need answered for their community and the measures they feel are appropriate for the food security issues in their neighborhoods.

2 Monitoring & Accountability

In addition to the evaluation plan, the food hub requires accountability measures to ensure that it maintains equity and its community-driven decision making is upheld with integrity and a mission for social justice. Transparency is essential to the equity and inclusiveness of the food hub as it exists within the community. In addition to having representative leadership as outlined in the Community Driven Decision Making Section, the food hub should have a committee composed of community members and third-party groups consisting of stakeholders in building food security . This board should be heavily involved in the evaluation of the food hub if not conducting it. Furthermore, the committee needs to be in touch with the local community to gauge opinions and problems surrounding the food hub, and it should have regular access to the operational data and records of the food hub. On the side of the food hub, there should be proper documentation and record keeping of all the operations of the hub including hiring, expenditures, revenue generated, meeting minutes, leadership decisions.

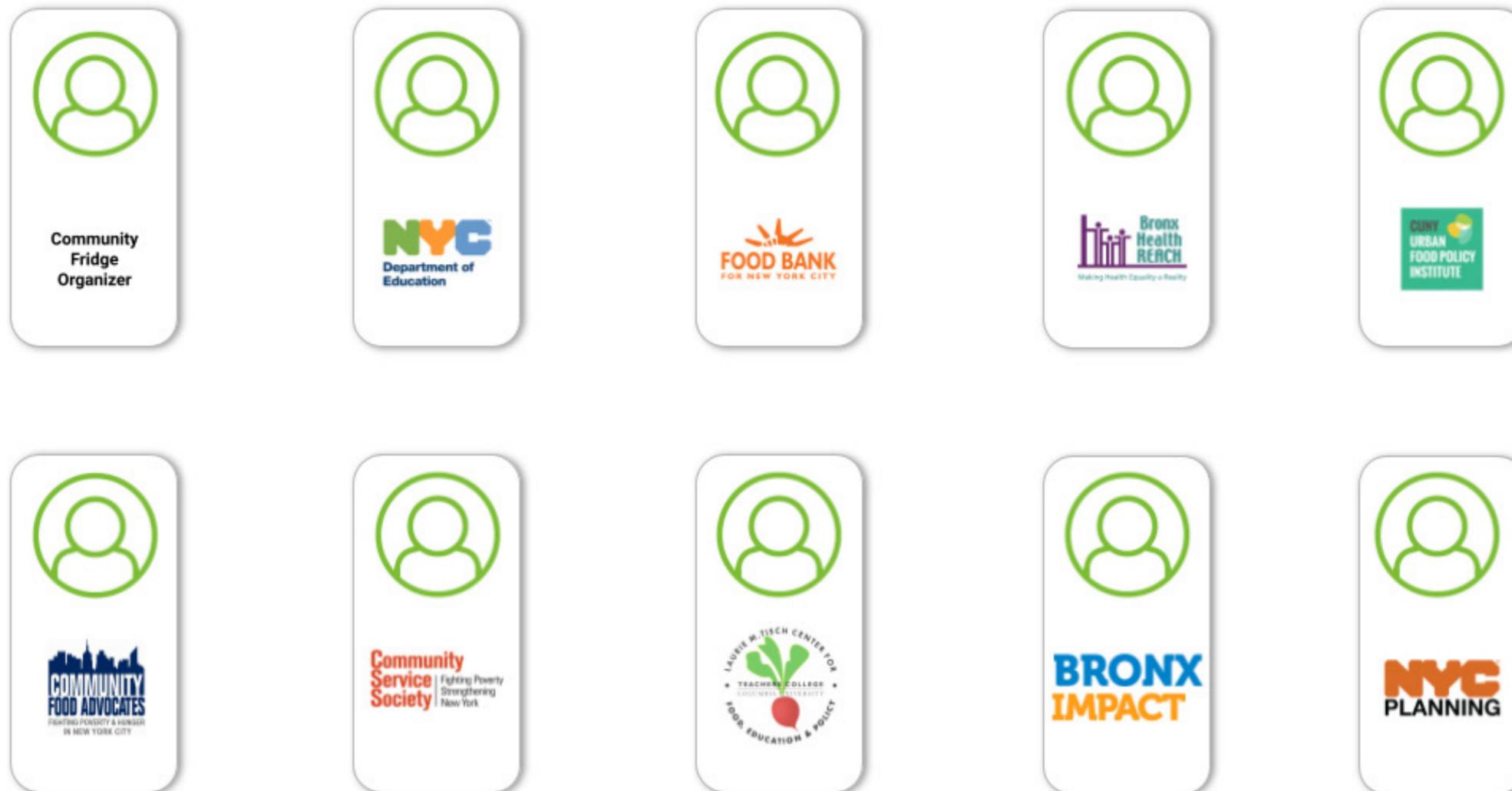
Additionally, leadership of the food hub should regularly communicate with the community about existing and future initiatives, the priorities of the hub, and the direction leadership will take for hub operations. These should be communicated in accessible and culturally competent mediums such as physical and electronic newsletters, social media posts, and town-hall style meetings accessible online and virtually, all of which should provide a space for the community to provide feedback and voice concerns.

Stakeholders

Introduction

A successful neighborhood food hub is one that is primarily by and for the surrounding community. As a result, the exact composition of decision-makers in an NFH is variable and highly adaptable to local needs and conditions. Several key broad categories of stakeholders must be involved. One important subset is local business, especially small and/or minority/female-owned businesses, such as bodegas, urban and regional small farmers, and non-chain restaurants. Another key stakeholder group is composed of the nonprofit and community organizations which fill crucial gaps in the existing social service infrastructure for many vulnerable people but often lack sufficient resources. Finally, another group that must be included is the set of public, quasi-public, and private agencies who have social and/or political control in the community, as their support is critical to the support of an NFH.

While the inclusion of these different stakeholder groups is critical, at its core every NFH should be under the democratic jurisdiction of its surrounding community. The voices of individuals and families in the community must be equitably and effectively heard on their own terms. Many traditional forms of community outreach and inclusion - democratically-elected boards, community meetings, virtual forums and surveys, etc. - are an important component of this process and should be implemented. For many reasons, including social and economic vulnerabilities, lack of spatial or temporal access, and language barriers, the most vulnerable members of urban communities are often excluded from hegemonic democratic processes. A successful NFH is one that explicitly engages with these voices through innovative and culturally competent approaches.



Points of Interaction

In the context of a South Bronx neighborhood food hub, stakeholders can best be organized based on their points of interaction with the NFH. A successful NFH operates in a cyclical fashion with five points of stakeholder interaction:

1. **Land Use & Policy:** These stakeholders control the zoning and policy regulations that allow the NFH to exist in the first place, but also play a crucial role down the line in creating subsequent policies that address areas of food insecurity (such as public assistance) that are outside the scope of what the NFH can solve.
2. **Food Procurement:** These stakeholders are the public, private, and nonprofit sources from which the NFH gets its food and other resources.
3. **Food Hub Internal Operations:** These stakeholders - ideally a combination of community members and organizations - control what happens inside the food hub on a day-to-day basis: what resources and operations exist within the NFH, oversight of temporal and economic accessibility, and logistical management.
4. **Community Interaction Points:** Stakeholders at this point of interaction include other points of access that will receive food from the NFH and make it available in other spaces in the community, such as bodegas, community fridges, off-site food pantries, and local markets.
5. **Evaluation & Community Feedback:** Finally, the last group of stakeholders are those which evaluate the success of the NFH and track other food insecurity metrics, including research institutions, community health groups, and advocacy organizations.

We propose the following diagrammatic framework for visualizing these points of interaction:



In the South Bronx, these categories of stakeholders come together in specific ways. There is a large body of nonprofits, food pantries, urban farms, community fridges, and other informal networks of food support systems. At the same time, large bodies such as city agencies, prominent private corporations, and research institutions often hold a high degree of influence over what is done in the community's food systems. A few of these varied interest groups are included in the above diagram, but many others exist and should be engaged in the process of creating a neighborhood food hub.

Components



Community Kitchen

A commercial kitchen space open and accessible to the user. Provides all the needed equipment and facilities

Community Storage

As part of the 10 year food plan, cold storage access has been a focus. Increasing cold storage capacity closer to residential areas will allow a greater number of different foods to be accessible. There are a number of different regulations related to storage temperatures, and therefore the NFH should have the space to accommodate the different storage needs. We have broken this down to dry, refrigerated, and frozen storage.

Community Fridge

The South Bronx currently has established community fridges and they have been successful in assisting the community in a small way. A key proponent of these fridges is the privacy they provide and the ease of access. They are open to the public and are accessible with no ID requirements, no online registration, or any additional steps, one can simply locate a fridge and help themselves to what they need at the moment.

Commissary/ Community Space

The goal of the NFH is to also provide flexible community space. This space could be utilized for different activities. For example, during the pandemic, this space could be used as additional space for volunteers packing meal boxes to take some pressure off of the overwhelmed food pantries.

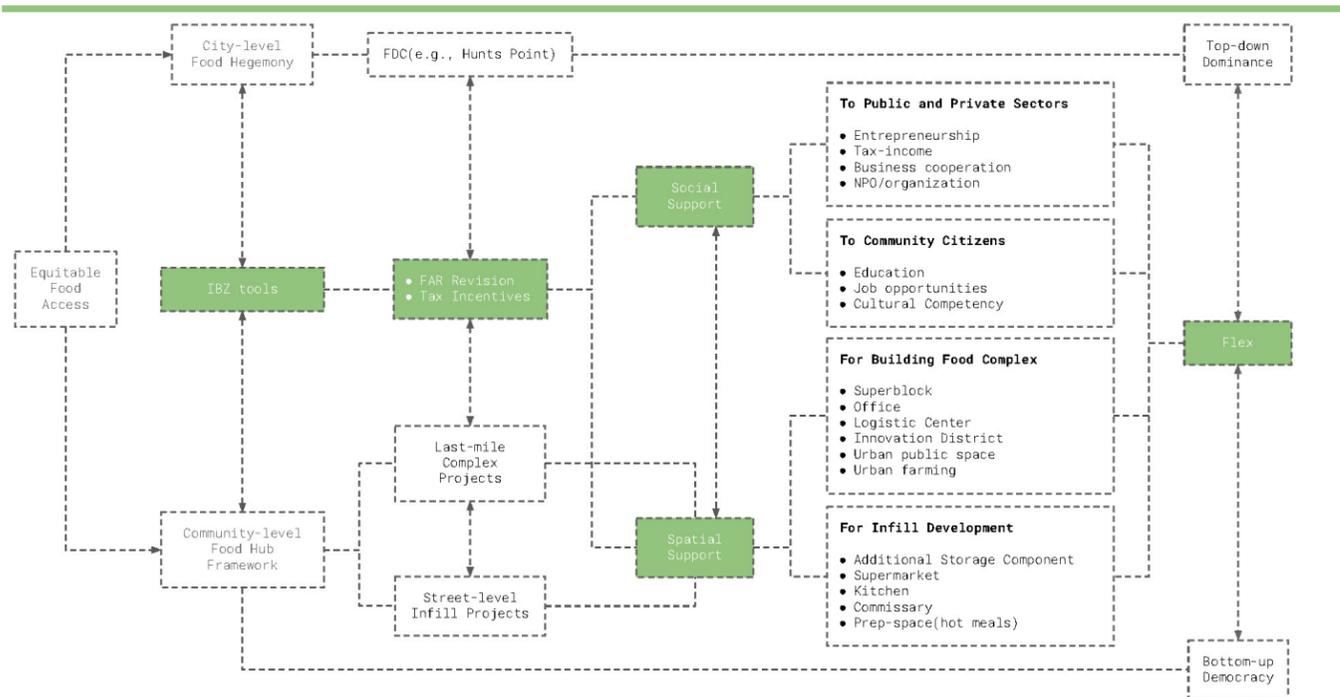
Community Learning Space

This space is aimed to help facilitate learning and educational opportunities within the community, providing needed infrastructural such as Internet access and training space.

NFH Support

The Industrial Business Zone (IBZ) is a principle/tool applied to the NFH framework development. Through adopting FAR support and tax incentives, IBZ tools play a role as an in-between structure that responds to the challenges that community-wide NFHs might encounter in practical social cooperation and spatial utilization. The allowance of FAR adjustment and tax incentives create the possibility for NFH to manage the food resources distributed from the upper stream, which lays an autonomy foundation for equitable distribution. Therefore, the IBZ tool is essentially an in-between support mechanism to ensure equitable and healthy food distribution works in the South Bronx.

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Key Tools

IBZ can support the community-based NFH operation from two: FAR revision and Tax Incentives.

- **FAR Revision**
FAR revision is the policy most directly related to land use classification, which provides NFH with physical conditions to “infill food actions.” Potential items realized by FAR support include: 1) Additional Storage, 2) Logistics, 3) Public space, 4) Urban farming, 5) Supermarket, 6) Office building for NPO/organizations, 7) Cultural competency space like communication centers. The landing of these physical spaces ensures NFHs operate in actual work conditions.
- **Tax Incentives**
Tax incentive under IBZ tools further helps NFHs agglomerate enterprise clusters. It creates job opportunities, increases tax income, and promotes business cooperation. Incentives attract food companies with diverse industrial roles to settle in nearby communities and bring more industrial interaction. In the long run, it is also possible to develop community-level food superblocs or incubators, which realizes mutual support between social innovation(entrepreneurship, education, investment) and spatial innovation(food industry clusters)

The Value of IBZ Tools

IBZ tools provide NFH with physical forms (additional spaces) that are not available from the community or street space. Spatial support is an operational foundation to ensure NFHs’ scalability development and possible social influence expanding. By doing this, IBZ tools bridge both the social and spatial gaps between city-level hegemony and community-level autonomy.

Bridge the Social Gaps

- **Decentralize City-level Food Hegemony to Ensure Community-level Food Autonomy**
Due to city-level food hegemony, the distribution disconnection between FDCs and local communities is one reason for the unfair food distribution in the South Bronx. One of the IBZ tool’s significant tasks is to decentralize such food resource dominance by defining new sites to establish “subdivision” platforms led by partnerships for food equitable management.
- **Improve Food Business Transparency**
IBZ tool helps decision-makers, entrepreneurs, vendors, suppliers, and market researchers share business cooperation information by providing a co-work space of “community + city cooperation.” This model is conducive to enhancing the transparency of industrial cooperation, which is the basis for service upgrades for the overall food industry. The specific method includes utilizing rental price subsidies and providing better working conditions to encourage food-related firms’ relocation into community-level space.

- Upgrade Community Food Services
The increasing firms' registration lets more tax income production from parcels. IBZ tools can further adjust FAR indicators to upgrade community food facilities for these firms and nearby communities, like building more supermarkets, urban farms, green markets, and bodega networks, promoting commercial or cultural interaction among diverse stakeholders and citizens.

Bridge the Spatial Gaps

- Supplement Storage, Parking, and Loading Space
IBZ tools help NFHs have supportive physical spaces. Generally, a challenging point of developing community-level NFH is that communities and street spaces have limited storage rooms and logistics sites, which weakens the direct food supply capacity from NFHs to communities. Additional spaces outside communities rebuilt by IBZ tools would better lead NFH to become a stable food distribution server, simultaneously releasing the urban space for developing more urban facilities like urban parks or corridors.
- Circular Growth Clusters (Food Superblock & Innovation District)
From a long-term perspective, with the continuous support from the additional food storage, management, and distribution led by IBZ tools, the NFH should consider the possibility to realize scalability development that provides the South Bronx with new urban infrastructure. Leading by the NFH framework, IBZ tools produce constant returns by gathering enterprises and producing job opportunities in specific land parcels. This circular investment model ensures NFH can reinvest space renovation and equipment upgrading even promote new social organizations' formation or establish new partnerships. The ultimate form of such clusters should be superblocks or innovation districts because of their very close functions to an ideal NFH that seeks to realize the food resource linkage across the communities.

Support by Phasing

The social and spatial collaboration between NFH and IBZ ensures a comprehensive food distribution strategy with a smooth collaboration between city-level and street-level. A practical implementation strategy for the NFH conceptual framework needs three phases.

- Short-term
Site selection alternatives based on GIS tools (large site/small site)
Quantify the number of land areas used for FAR revision
Calculate the potential spaces for supportive storage and logistics for nearby NFH
Ensure the connection to NFH components
Research on the relocation feasibility for food firms and startups and predict the potential tax incomes
- Mid-term
Develop food entrepreneurship clusters
Create food industry job opportunities
Realize food industry/service relocation from city-level to the community-level
Establish food resource autonomy of community-level through the democratic process
- Long-term
Reinvest to develop food superblocks/innovation district
Urban system upgrading due to new cluster influence



Distribution Support

- Site selection
- Storage & Logistics
- Connection to Food hub component



Industry Support

- Enterprise cluster
- Job opportunities
- Industry relocation



Community Support

- Superblocks
- Community facilities
- Urban services



IIII. Applying a Conceptual Framework for a Neighborhood Food Hub in The South Bronx

MCDA MAPPING

The location of a food hub is the direct physical connection for communities to access the provided services. To identify the optimal locations of a Neighborhood Food Hub in the South Bronx, a specific methodology was developed based on the feedback from the community outreach. This methodology for selecting food hub sites is based on multi-criteria decision analysis (MCDA) theory for making decisions. At its core the methodology for the site selection includes compiling several categories of spatial indicators that are combined to classify areas in how optimal they are for a Food Hub. Each spatial indicator is scored based on how much it should affect the site selection decision process with a high number meaning a higher score and a better site for a food hub and a low number meaning a lower score and worse site for a food hub.

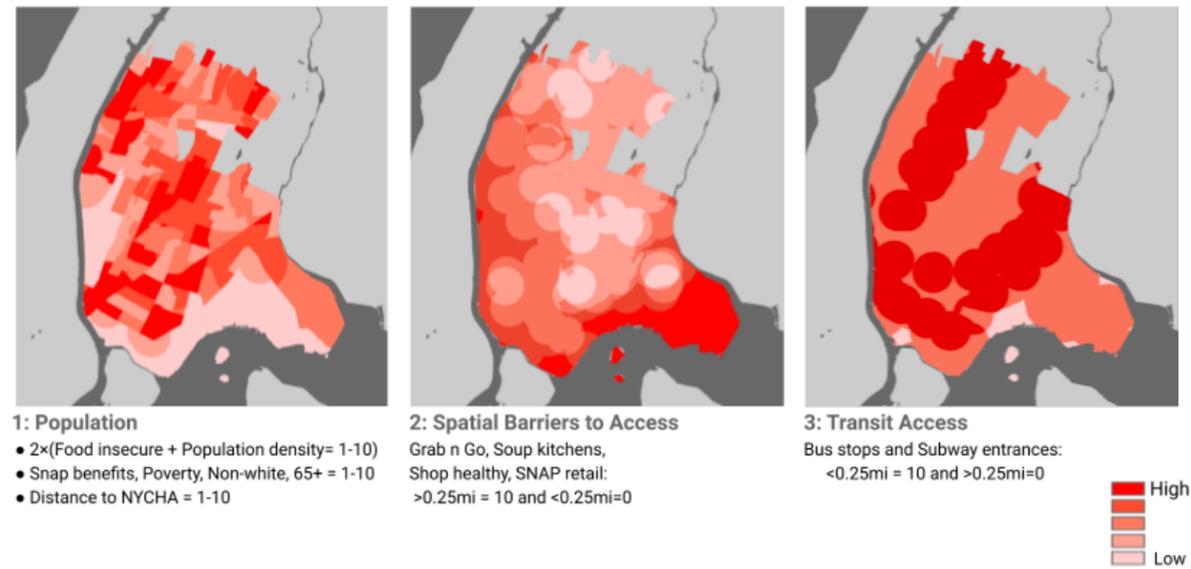
The indicators chosen for the South Bronx site selection methodology fall into three categories: Population, Spatial Barriers to Access, and Transit Access.

The Population indicators include information per census tract such as the percent of households getting SNAP benefits, the percent of people who are in poverty, non-white, elderly, food insecure, as well as the population density per census tract and the proximity to New York City Housing Authority (NYCHA) developments. For all Population indicators the areas with more of the specific indicator were scored higher. To identify sites where the food hub could serve the most people in need, the indicators of population density and food insecurity were both scored twice as high compared to the other Population indicators.

The Spatial Barriers to Access indicators included areas more than a quarter mile away from SNAP retail stores, soup kitchens and Grab n' Go sites. For those indicators the locations farther than a quarter-mile away from these points of access stores were scored higher while areas within a quarter-mile were scored zero. This was to prioritize site locations not in the service area of existing service providers.

For the Transit Access indicators, the proximity to areas within quarter-mile distance to bus and subway stops was scored the most. This was done to guarantee that the possible food hub sites would be in areas with high transit accessibility. Once the indicators were defined, the next step was to combine the categories of indicators using several MCDA operations to find the best sites for a food hub based on what was prioritized in each indicator.

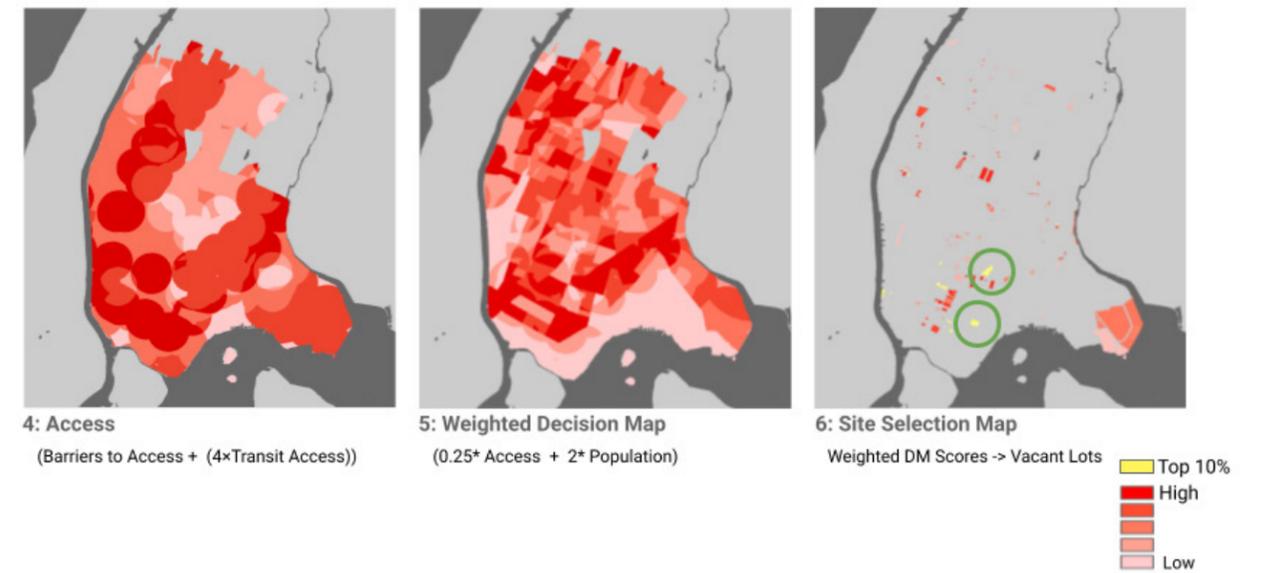
Variables



The first operation was to combine the indicators of each category to obtain maps of each category of indicators which is shown in Maps 1, 2 and 3. The next step was to combine the Spatial Barriers of Access map (Map 2) and the Transit Access map (Map 3), scoring the Transit access indicators more, to get an overall Access map (Map 4). This shows areas not serviced by existing food infrastructure and with very high transit accessibility due to the higher scoring of that category of indicators. The Transit Access indicators were scored more because while the spatial distribution of points of sale and service providers was something that was examined, it was more important to look at areas with high transit access for considering potential food hub sites.

The next operation was combining the Access indicators (Map 4), with the Population indicators (Map 1). The Population indicators were weighted more as it was important to prioritize the services to the people over how ideal the built environment might be for a potential food hub. The output of this operation is the Weighted Decision Map (Map 5). This shows areas of the South Bronx that have high priority and low priority for a food hub. The Weighted Decision Map (Map 5) was then combined for one final operation to a dataset of the city owned lots in the South Bronx. This completed the necessary MCDA operations and provided the Site Selection Map (Map 6). In the Site Selection map (Map 6), the lots in yellow represent the sites in the top ten percent of priority for a food hub, compared to the other city owned lots.

Decision Maps



The two largest and highest priority lots, circled in green, were chosen to explore what a food hub might look like at these sites. These site depictions are meant to be suggestive – as a means to explore possible configurations of the neighborhood food hub into these sites – rather than to be prescriptive..

Site Selection

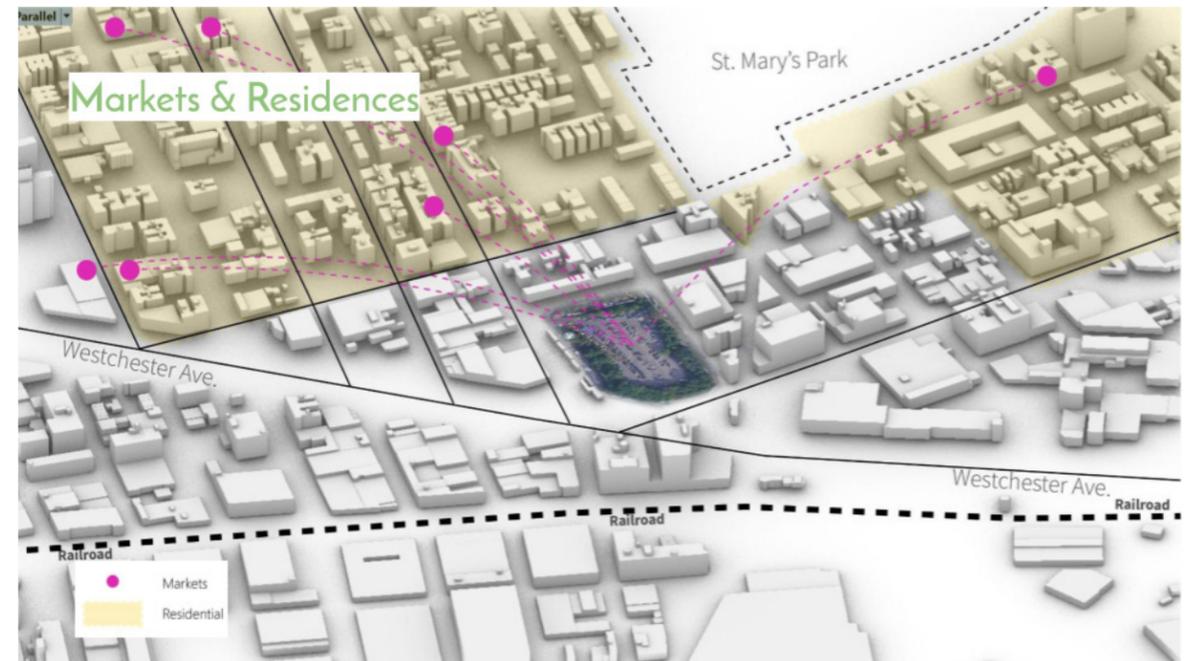
Site A

Approach: Vacant Lot
4-acre site: 320 Concord Ave



320 Concord Ave is a near-perfect site for a Neighborhood Food Hub, both from a spatial as well as a social justice perspective. Spatially, the site is enormous for a vacant lot in the dense South Bronx. It is well-connected to the subway and bus systems, as well as to the road infrastructure to support regular truck use. It sits on the edge of the highest-need population by our MCDA in the South Bronx, with a dense population of mostly low-income, Black and Brown, high food insecurity residents (as well as a large NYCHA population). With the flexibility of such a large and vacant site, high connectivity by foot, public transit, and roads, and the concentration of need in this area, it marks a near perfect site. 320 Concord Ave. is also located within an Industrial Business Zone, where business support services to industrial and manufacturing establishments are located, which could serve as a valuable tool for the development of this site as a food hub.

As the site is a 4.2 acre-vacant lot, we suggest the neighborhood food hub to be placed on the right part of the lot, with its access oriented towards the nearby subway station, which could attract more people and residents. On the left part of the vacant lot, we suggest extending the residential typology of the adjacent block, of which the residents will be potentially going to the food hub. Between the food hub and the residential area, we propose a green space that could serve as a transitional zone for residents next to the food hub and as an area for future expansion of the food hub.



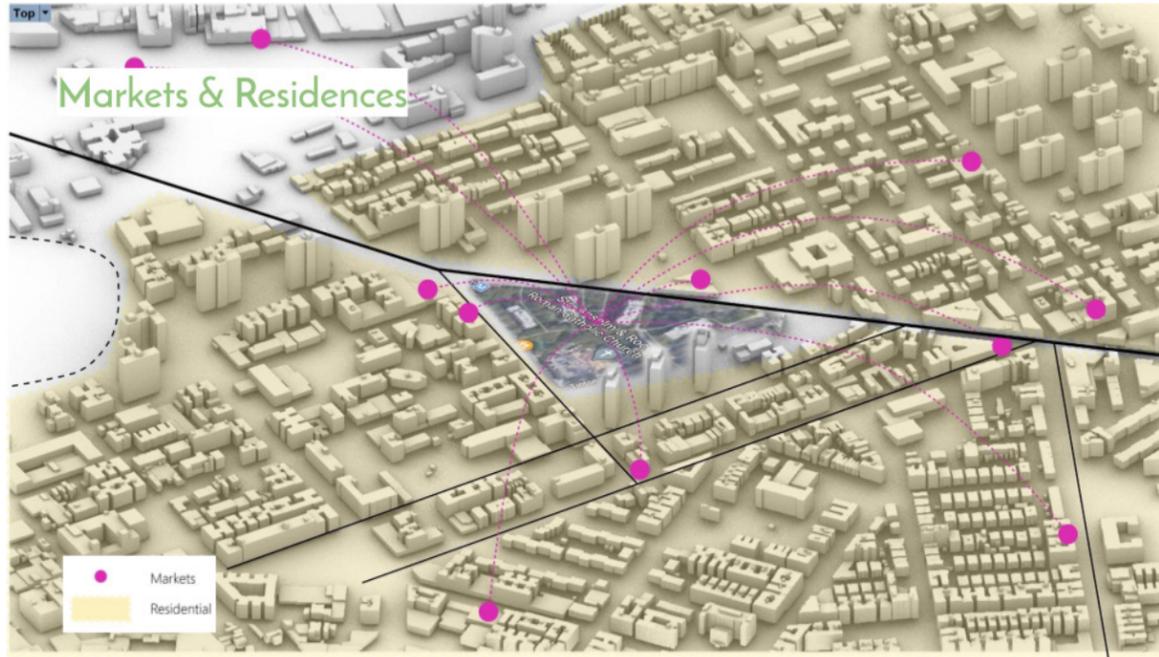
This diagram shows that to the west and north of the site, there are markets and residential areas that the food hub could potentially connect to, supporting our hub-and-spokes model.

Site B

Approach: In-situ Infill/Integration
NYCHA Site: 720 Westchester Ave



The second approach is an in-situ/infill integration in 720 Westchester Avenue, which is a NYCHA complex with vacant land within the site. The site could benefit from adding food hub components in the vacant spaces surrounding the NYCHA buildings, which would arguably be more feasible as they serve as compliments to the existing site functions, such as low-income residential areas, schools and churches nearby. We would also like to note that there is a subway station next to the site.



This shows that 720 Westchester Avenue is engulfed by residential areas, to which the value of an Neighborhood Food Hub can be seen.

IV. *Conclusion*

This studio has attempted to address a serious problem in New York City, food insecurity and the impact during the time of the COVID-19 pandemic.

The overarching theme of the research has been **equity, access** and the **community**. The fact that the South Bronx is in such close proximity to the Hunts Points Produce Market and still finds itself one of the most food insecure areas in the country points to the fact that **physical proximity does not equate access**.

The South Bronx Community Food Hubs are intended to provide access to those who are most vulnerable. In our thorough examination of the problems, we have identified key components that we believe should be addressed in any proposed solution to the South Bronx's food insecurity problems. We have expanded what a food hub should be to meet the needs of our identified communities in the South Bronx. A neighborhood food hub is a **community led institution** that provides missing infrastructure, such as kitchen space, storage, and community center services, all to support food security in communities who are currently struggling with food security.

The food hub works by actively linking regional producers with food entrepreneurs and emergency service providers, such as food pantries and food banks. It was important to base the organization of the food hub on principles of democratic governance so that the community food hub not only be for the people but also be run by the people as well. We believe the framework accomplishes this. We see the neighborhood food hub as a necessary, but admittedly incomplete, step towards the city using its resources **to cede control of the food system to communities who are being and have been harmed by the current system**.

Through the hub and spoke model, the neighborhood food hub looks to address equity issues at the processing and distribution level rather than solely focusing on retail level. The equity framework provides a crucial guide for implementation and evaluation, and our focus on IBZ tools can help make projects like this feasible. While specific components should be adapted through a more expansive community organizing process, our proposed site plans seek to identify what infrastructure may be needed for the church pantry that doesn't have access to enough storage, the community member trying to grow their small food business, or the child who needs a healthy snack after school and a place do their homework.

It is a new institution controlled by the neighborhood for the neighborhood in pursuit of food justice.

*Thank you,
The Feeding The City Studio*

*MSUP, Spring 2021
GSAPP, Columbia University*



Appendix A

Evaluation Framework Elements

These are elements considered essential for the evaluation of a food hubs operations to equitably distribute food, promote healthy diets, and create opportunities for the community. This not an exhaustive list of measures and questions to determine, and these should be supplemented with input from food security actors and community stakeholders.

Process Measures Through Record Keeping:

- The amount and variety of food sold
- The profit and costs of the food hub
- The number of community stakeholders involved in food hub planning and operations
- The amount of low-income or minority producers/suppliers working with the food hub
- The demographic composition of the food hub staff
- The number of classes, workshops, and community events that have occurred within the food hub
- The number of low-income or minority residents that have utilized the community kitchens
- The number of food pantries/banks that have utilized the community storage and freezers

Process Measures from Surveys:

- Does the food hub stock a culturally competent food supply for the community?
- Does the food hub hire a diverse workforce representative of the community?
- Are the marketing and outreach strategies appropriate and effective in the community?
- Do the workshops improve the food skills and nutrition education of the attendants?
- Are community members able to easily access kitchens and other food hub resources for nutrition education, workshops, and classes?
- Are the physical spaces provided by the food hub adequate for the community and for food hub operations?
- Does the food hub provide adequate support for low-income producers/suppliers and producers/suppliers of color?

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