



**New York State-New York City
Regional Food Hubs Task Force
Final Action Plan**

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I. NYS-NYC Regional Food Hubs Task Force

Food hubs are mission-driven organizations that link farmers, distributors and consumers in support of two goals: growing regional agricultural economies and increasing access to healthy foods. They work by aggregating fresh and value-added foods, providing warehousing and distribution activities, and offering educational and technical services to producers and consumers.

In December 2014, Governor Andrew M. Cuomo formed the New York State and New York City Regional Food Hub Task Force at the statewide Farm-to-Table Upstate-Downstate Agricultural Summit. The goal of the Upstate-Downstate Summit was to boost production and consumption of New York State fresh and value-added foods. The Task force explored tools to increase access to fresh food, by helping smaller producers to reach local downstate markets. The Task Force was charged with identifying capital investments and policy solutions that advance these goals.

The Task Force began its work in March 2014 with representatives from agencies and organizations with expertise in the production, aggregation, distribution, marketing, and consumption of New York State agricultural products.¹ Staff supporting the work of the Task Force included employees from Governor Cuomo's Executive Chamber, Empire State Development, the New York State Department of Agriculture & Markets, the New York City Office of the Mayor, and the New York City Economic Development Corporation. Karp Resources, a New York-based agriculture, food, and health consultant. The State and City have common objectives related to economic development, food access, health, community engagement, equity, and regional food system planning and expansion.

The work of the Task Force took place over three months. Based on its research and analysis, the Task Force recommends the development of a **NYS-NYC Regional Food Hubs System**, organized within a framework of physical and programmatic initiatives to be developed and implemented in partnership with local stakeholders.

¹ See Appendix 1, Members of the Task Force.

II. RESEARCH AND ANALYSIS

The Task Force reviewed a wide range of academic research, field research, and surveys of stakeholders in agriculture, food processing, food distribution, and food purchasing. Karp Resources conducted interviews and surveys with public and private supply chain stakeholders involved in the growing, processing, distribution, and promotion of New York State foods, as well as with food systems advocates focused on equity and food access.

The interviews and surveys revealed several themes. Each interview and survey² noted that demand for fresh, local food is rising in New York City and in the nation. Many mentioned the need to educate the general public and commercial buyers about the economic benefits of buying locally. Others also brought up the higher cost of local food relative to other food found in supermarkets and wholesalers. This research and resulting analysis informed the work of the Task Force and is summarized below.

Stakeholder Interviews and Research

Buyers: Twenty-six buyers including chefs, distributors, institutions, and community groups consistently expressed a desire to purchase more local food. These stakeholders noted both the high demand in New York City for high-quality, locally produced foods and for enhanced brand identification for food grown in New York State. These groups also identified inconsistent production volume, quality, price and availability as barriers to purchasing and consuming locally produced foods. NYC-based buyers value the establishment of long-term relationships with upstate farmers and emphasized the importance of knowing that the food they purchase meets the highest food safety standards. Improved infrastructure for food aggregation for farmers (including refrigeration/cooling, packaging, and other processing like washing and grading) would help ensure high quality and give assurance that products are fresh and safe to consume once they arrive in New York City.

Farmers: Seventeen farmers emphasized the need for educational and technical assistance to help farms scale up, modernize inventory technology, acquire food safety certifications, and improve planning for crop production and yield. Additionally, farmers expressed a need for improved transportation and distribution logistics to help eliminate the inefficiency that results from many farmers having to drive their own products into New York City and around the state. Self-distribution is time-consuming and inefficient. Better coordination of pickup and delivery would allow farmers more time to farm and reduce carbon emissions and transportation costs.

Food Hubs: Existing food hubs in New York State focused on the need for additional processing facilities for farmers (particularly for grading, packing, and washing) and improved infrastructure such as storage, refrigeration, and distribution vehicles. Food hub representatives saw themselves as potential resources for technical assistance to farmers on topics which could include certification, technology, access to capital, and education.

Community-based stakeholders: Thirty-three community-based and nonprofit stakeholders support a strong local food economy to improve access to locally produced, healthy foods, particularly for low-income and other underserved populations. This group noted the importance

² List of interviewees is Appendix 2, the interview guide is Appendix 3, and the survey questions are Appendix 4.

of capturing multiple perspectives when setting policy related to food system development and giving a diversity of community stakeholders a voice in the conceptual frameworks, location and operating models of concepts that may be established as a result of this Task Force. Most of these advocates identified significant systemic barriers to local food access in New York City, which is consistent with findings among buyers and farmers that refrigeration and last-mile distribution³ are barriers to accessing downstate markets. These stakeholders also encouraged the Task Force to consider increased efforts to connect underserved communities to fresh, local food; job creation and community ownership and participation in food hub business ventures; and connecting local farmers, including NYC-based urban farmers, to new markets.

Analysis and Findings

Based on the research summarized above, the Task Force determined that the central barrier to access to local food for downstate communities, particularly for underserved communities, and the limiting factor in upstate farming sector growth is the ability of mid-sized farmers to efficiently connect with large-scale distributors who will sell their foods to consumers. To be successful, a regional food hubs system must support mid-sized farmers to become wholesale-ready.

New York's food system is rich in both supply and demand, with abundant upstate farmland and expanding downstate desire for fresh regional and local foods. Large farms are successful in part because their scale of operations allows them to establish contracts with large existing distributors. Small farms' business models center on direct-to-consumer sales through on-farm stands, urban farmers' markets, or community-supported agriculture (CSA). Mid-sized farms,⁴ however, produce too much volume to move through direct-to-consumer channels yet too little to enter into contracts with conventional distributors; they may require assistance to fully exploit their market opportunity and get their products to market.

Mid-sized farms may need better access to established aggregation systems that connect producers with wholesale channels including distributors, supermarkets and other retailers, and restaurants. Lack of such access constitutes a critical barrier to connecting regional producers and downstate consumers. The Task Force has identified four significant challenges to connecting mid-sized producers to a broad base of consumers:

- Mid-sized farms face financial and logistical barriers to entry and growth.
- Inefficient supply chains with high per-unit costs and un-scalable distribution mechanisms reduce profitability for mid-sized producers which increases cost to consumers.
- High costs of land and infrastructure limit opportunities for farming and aggregation upstate which increases the expense of processing and distribution downstate.
- Insufficient infrastructure inhibits the delivery of high-quality, fresh, nutritious, local food to underserved communities, which results in disparities in health outcomes and well-being by race and class among communities across the supply chain.

Key Goals

³ "Last mile" is a term used in supply chain management and transportation planning to describe the movement of people and goods from a transportation hub to a final destination in the area.

⁴ The USDA defines mid-sized farms as those with an annual gross cash farm income between \$150,000 and \$999,999.

Based on the research and analysis summarized above, the Task Force identified a series of key qualities necessary for a functional Regional Food Hub System and developed the following goals:

Quality: Achieve higher food quality through field cooling, on-farm washing, grading, refrigeration, food safety training such as the USDA Good Agricultural Practices (GAP) certification, as well as real-time digital inventory sharing.

Volume: Help individual farmers achieve sufficient production to meet the scale needed by wholesale retailers and other distributors.

Efficient transportation and logistics: Streamline supply chains to achieve better coordination and efficiency to help farmers enter the market at a competitive price.

Appropriate storage, processing and distribution space: Provide access to affordable, flexible spaces to support early-stage storage needs and seasonal volume fluctuations.

Connections between producers and buyers: Promote an accessible and organized flow of information between buyers and growers to facilitate the growth of business connections and to drive increased sales.

Source identification and traceability: Create a strong tracing system to provide assurance of product origin, distribution chain, product safety, and other qualities.

Access to capital: Promote easy access to funding sources that support local farm, food, and distribution-related enterprises, especially mid-sized farmers.

Minimizing start-up and growth costs: Improve access to shared services and facilities, such as contract packing and meat processing, for growth-stage manufacturers and processors.

Getting full value of product on the market: Increase added-value processing and improve distribution opportunities to facilitate producer access to larger markets.

Reducing inequity and improving access: Reduce racial and socioeconomic disparities in health and wellbeing by improving access to fresh foods in underserved communities.

Inclusive planning and decision-making: Give communities affected by investments along the food supply chain, including communities of color and low-income communities, ownership and agency in the planning and decision-making processes around the food distribution system.

III. RECOMMENDATIONS

The research, analysis and goals outlined above guide the specific recommendations of the Task Force with respect to policy and program initiatives that the State and City can take to support a regional food hubs system. The recommendations below each have multiple subparts and are described in depth later in the report.

The Task Force makes four recommendations to establish a Regional Food Hubs System:

- Invest in farm aggregation and distribution infrastructure (on-farm infrastructure, aggregation and distribution infrastructure, communications systems)
- Invest in food hubs in New York City (a regional food hub in the Bronx, a co-packing facility within NYC, and explore demand for a regional meat center and neighborhood food hubs)
- Enhance NYS food brand and expand marketing and education
- Create an investment strategy for growing the regional farm and food economy

Recommendation 1: Invest in Farm Aggregation and Distribution Infrastructure

The Task Force recommends expanded investment in farm aggregation and distribution activities to increase marketable farm production and capacity. This can be achieved by focusing on three areas: on-farm investment, aggregation and distribution investment, and investment to improve communications between producers and consumers.

On-farm infrastructure

On-farm equipment infrastructure could improve post-harvest handling, address food safety compliance, support wholesale readiness and improve market competitiveness.

Feedback from growers, along with research on national food marketing trends, demonstrates an increasing saturation of direct-to-consumer markets. Emerging wholesale opportunities offer new markets for farmers, but smaller and mid-sized producers will likely need to invest in new infrastructure to develop the ability to sell to wholesalers. Specific investments needed by farmers to enable this growth include focus on efficiency and output, such as: field cooling equipment, packing lines, washing and grading facilities, cooler and freezer storage, and controlled-atmosphere storage to allow for extended crop availability through the year.

Buyer: "We need root cellars and root crop storage."

Industry: "There are grading issues. People expect a certain quality. Stores are becoming more adamant about requiring GAP certification."

The impact of such investment was demonstrated by a 2013 Regional Economic Development Council grant which provided matching funds to 57 farms to purchase cooling equipment. Grant

recipients found that improvements to their on-farm refrigeration or freezing infrastructure resulted in higher farm profits and increased job creation, directly related to extended availability of products and the ability to reach new outlets due to increased volume. Most grant recipients expanded production to additional crop land after improving their storage infrastructure.

- **ACTION:** Provide workshops and webinars on all aspects of agribusiness development, including business development, access to capital, technical assistance, GAP certification, federal and state funding opportunities, and foundation and not-for-profit funding opportunities.
- **ACTION:** Promote existing programs including the New Farmers Grant Fund, USDA local food promotion programs, and others.

Aggregation & distribution infrastructure

Food hubs near producers are needed to provide aggregation, wholesaling, processing, re-distribution of farm products across the state and to serve as a link between upstate and downstate wholesale and consumer markets. Hubs support the goal of increased distribution of regional foods to wholesale buyers by providing aggregation, grading, washing, refrigeration, packing, and distribution of regional food to the end buyer or to a New York City-based food hub.

Distributor: "A downstate food hub is only as strong as upstate aggregation centers that feed it. The quantity of food coming to NYC is only as good as the capacity for aggregation outside the city."

This recommendation is to develop additional capacity of rural food hubs to meet the growing demand for New York State products in the marketplace, by identifying public and private investments, incentives, technical assistance to expand aggregation capacity and establish new food hubs at key production locations throughout the state. Support and development can include financial incentives and technical assistance for economic development, which may include logistics, transportation, distribution, and job development.

- **ACTION:** Assess the need for enhanced or additional food hub infrastructure.
- **ACTION:** Research public and private funding opportunities to support upstate food hub projects.

Communications systems

Survey and interview results revealed that it is a challenge for producers to access information about metro-market access and the supply chain. While many programs bring growers and buyers together, stakeholders report that these are seen as disconnected and difficult to find. What is needed is a single platform hosting wholesale-readiness resources, a user-friendly business directory, and a list of technical assistance providers. Growers and distributors specializing in local food also stress the need for more meetings with prospective buyers to help them understand

the business climate of local sourcing. Stakeholders report that government-facilitated forums are useful, especially on topics such as contracting with local growers.

***Distributor:** “We need to bring buyers into conversations as well. All buyers have different specs on how they want their product delivered.”*

***Industry:** “We need an easier identification of supply. A website could be a one-stop shop. It would allow farmers to log in: note what they planted, when they expect it to be ready. At least you could know who to talk to if you were interested in certain products”*

A communication hub would serve as a ‘one-stop-shop’ business facilitation center that would provide resources for producers, processors, distributors, food hubs, and buyers. Such a hub could have two major components: an online hub to be an information resource to suppliers and producers and dedicated staff to provide direct business development support.

Online Hub. A web portal could consolidate and expand information such as directories of businesses along the whole supply chain, reference material (topics such as food safety, labor law, licensure), catalogs of institutional resources such as Cornell Cooperative Extension and Farm Credit East, and topical information such as seasonality charts and funding opportunities.

Business facilitation. Services to expand sales to the downstate marketplace might include offering technical assistance in navigating the business directory, and helping connect buyers and growers, organizing events statewide to connect and enhance the food hub business community, and creating ongoing communications with the food hub business community.

- **ACTION:** Propose, draft revisions, and finalize a web layout for an online communication hub.
- **ACTION:** Develop content for the online platform as necessary.
- **ACTION:** Work with other stakeholders, such as nonprofits, for-profits, Cornell Cooperative Extension, ESD, SUNY, and OGS, to arrange in-person meetings between producers and buyers.

Recommendation 2: Invest in Food Hubs in New York City

Food hubs located within NYC would aggregate, process, manufacture, and distribute food throughout the five boroughs. Such a network of food hubs serving wholesale and retail outlets would benefit suppliers by connecting them with new opportunities for sales, and would benefit local businesses by establishing more proximate and accessible sources of local food. NYC food hubs would also contribute to the city’s resiliency in the face of extreme weather and other events through diversification of food aggregation, wholesale, and distribution points. Additionally, NYC-based food hubs could serve as engines of economic development in a more equitable food system that promotes high-quality jobs, small business development, and healthy food access.

The Task Force recommends advancing four tracks of investment in NYC food hubs: a large regional food hub located in the Bronx, a co-packing facility, a potential meat food hub, and several smaller potential neighborhood food hubs.

Locate a Regional Food Hub in the Bronx

A critical link in a Regional Food Hubs System is a wholesale manufacturing and distribution hub at a NYC location accessible to upstate growers, producers, and distributors – ideally, in the Bronx. Such a facility would build on investments in upstate aggregation hubs by opening new market opportunities in NYC for the storage and redistribution of products from mid-size farms and producers. A regional food hub could facilitate the last-mile delivery of regional food from mid-scale producers into New York City, a key barrier to entry and growth.

Distributor: “Lack of infrastructure is the biggest barrier to growth.”

Distributor: “There should be some level of investment/consideration for those connecting upstate agriculture with downstate markets by means of a way to get product to the market.”

A regional food hub in the Bronx would be anchored by an entity with the mission to connect regional growers and producers with New York City-area buyers. This anchor tenant could co-locate with for-profit wholesale, processing, distribution, and/or manufacturing businesses whose operations align with the goals of the hub. These would provide more jobs and drive additional economic activity.

A key functional feature of the regional food hub would be shared cold and dry storage space available for rent by farmers and distributors. Rented sections would be smaller, more flexible, and more affordable than the minimum square footage available for rent at individual dedicated facilities. Users could bring large shipments from outside the city for storage in the Bronx hub and could run daily last-mile deliveries from the hub to customers in the New York City area. These efficiencies would ultimately benefit buyers and consumers, since overall business costs would decrease, thereby lowering cost barriers associated with accessing fresh, regional food.

A regional food hub located in the Bronx would support buyers that serve consumers and communities across New York City, and could create a larger presence of food businesses in the Bronx that make, market, and sell regional foods to wholesale buyers. The hub would serve as a terminal for upstate regional food hubs.

The Task Force recommends the following specifications:

- A facility sized between 50,000 and 100,000 square feet, with floor area split among programs for warehousing, cold storage (various temperature zones for refrigeration and freezing), production, office and community uses, and ancillary retail,
- Sufficient infrastructure, including loading dock(s), to serve building size, and
- Sufficient parking for cars and trucks per zoning requirements.

A regional food hub should provide additional benefits to users beyond the physical moving and processing of goods, such as developing market connections through access to information and technical assistance. These may include brokerage & financial services, certification services or resources, hosting networking events, offering showroom and event space, and maintaining teaching/demonstration kitchen spaces.

A Bronx regional food hub could attract and support the growth of related tenants in the surrounding food cluster, which would stimulate the regional food economy citywide. Related tenants may be for-profit businesses, not-for-profit organizations, or institutional users. Missions and operations complementary to the hub may include processing activities (grading, washing, packing), value-added processing activities (pickling, smoking, baking), distribution & sale of items complementary to food hub purchases, or a food science resource center.

Investment in a Bronx regional food hub could indirectly support a network of distributors of regional food throughout the area. Increasing the availability of regional food addresses the chicken-or-egg issue of supply and demand—increasing the availability of these products to meet growing consumer demand could be a proof of concept for other suppliers interested in carrying regional products. The economies of scale allow regional products to become more price-competitive with conventional products, making high-quality, fresh food more affordable to underserved markets. Hunts Point was mentioned specifically because of the cluster of existing food businesses and the benefits of shared service and supply networks.

The Bronx regional food hub would also facilitate fresh food access for residents in the South Bronx, especially Hunts Point. In response to demand for access to fresh, affordable food in retail outlets in Hunts Point, this hub could provide local buyers with a wholesale source of regional foods. This would serve to further the City and State’s commitment to increasing access to fresh food for all New Yorkers, especially diverse, low-income, and underserved communities.

See Appendix 5 for an economic impact analysis, and Appendix 6 for a real estate gap analysis.

- **ACTION:** Identify an operator and potential sites and/or existing vacant facilities available for the development of a Bronx Regional Food Hub.
- **ACTION:** Execute lease with developer/operator.
- **ACTION:** Commence pre-development and development activities.

Support a Co-Packing Facility in NYC

Contract packing (co-packing) is third-party production of food or beverage product on behalf of a manufacturer or designer. Establishments offering these services generally serve multiple clients within a product category or segment, using a distinct and specialized food and beverage production process. Co-packing supports the objective of growing and diversifying downstate demand by developing new food processing and value-add capabilities -- functions anchored by upstate aggregation hubs and downstate distribution hubs and manufacturing facilities.

NYC had nearly 1,000 food and beverage manufacturers in 2015.⁵ This industry has been a bright spot within the city's industrial sector over the last 10 years. From 2008 to 2012, the number of firms grew 11.4 percent and employment grew 5.1 percent.⁶ This growth has been driven by entrepreneurship and small businesses, many of which are minority or women-owned business enterprises⁷ (MWBES), that manufacture local, artisanal food products. Several factors drive this growth: the large, diverse consumer markets for niche food products; fast business-product testing cycles; close proximity to consumers; low barriers to entry through shared kitchens and workspaces; and availability of upstate produce.

Growth can be limited however, by the ability to scale production, which may lag increased demand. Firms often contract for co-packing services to produce some or all of their products – though many co-packing services are outside of the tri-state area. Relying on distant co-packers for local food production is a missed opportunity for production employment in NYC and NYS and heightens the risk of our food and beverage manufacturing businesses relocating outside the state, thereby disrupting existing, regional supply chains.

The creation of support services such as co-packing facilities is critical to enable growth-stage businesses in the food and beverage sector to tap into new retail opportunities without the high capital investment usually required to scale production. Additional co-packing capacity in NYC would enable growth-stage companies to stay in NYC while innovating and growing their businesses, and it would strengthen the regional supply chains.

NYCEDC's research identified a large opportunity to serve growth-stage companies with production runs between 500 and 5,000 units. Several product categories may have high unmet demand for co-packing services in Brooklyn⁸ such as baking, chocolate and confectionary, brewing and distilling, dairy production, value-added meat processing, coffee/tea roasting, and canning, jarring & bottling.

In 2015, NYCEDC completed a feasibility study for the development and operation of a food and beverage co-packing facility within the city. NYCEDC has found that while an operator could deliver these services at profit, the high land, building, start-up, and build-out costs of such a facility have prevented the private market from meeting this demand.

Factors to consider when siting a co-packing facility include proximity to clients, employees, and outbound distribution points, as well as overall accessibility (truck routes, public transit, and parking). New co-packing services could be encouraged by the development of new, dedicated facilities or by the expansion of existing co-packing, manufacturing, or commercial kitchen facilities.

Explore demand for a Regional Meat Center

The Task Force's interviews, surveys, and independent research revealed that meat is one of the

⁵ NYC Council Member Steven Levin, *Report on Co-Packing for Brooklyn Food Manufacturers*, 2013, <https://www.scribd.com/doc/179623369/Report-on-Co-Packing-for-Brooklyn-Food-Manufacturers>, p. 5.

⁶ *Ibid*, page 3.

⁷ *Ibid*.

⁸ *Ibid*, p. 5

top three local products demanded by buyers like institutions, restaurant chains, and retailers.

A regional meat center could facilitate increased production by providing a viable wholesale outlet for producers who now rely exclusively on retail activities. Such a center would allow processors to expand slaughter-only operations to reach capacity, and would support new slaughterhouses in the region. It would provide a USDA-inspected facility for chefs and entrepreneurs to make artisanal meat products, including dry-cured products like prosciutto-style hams, dry salami, and jerky. This facility could also have separate areas for halal and kosher meat processing and product development to allow for further processing under religious supervision.

This concept both reflects an opportunity for NYS livestock producers to grow their businesses, and also responds to new culinary trends by allowing for chef-driven innovation utilizing the whole animal.

A regional meat center is envisioned as a state-of-the-art model for the further processing,

Buyer: "I'd love to do more pickling, curing, smoking, and other preservation, but the legalities of it are complex and we don't have the money to wait for charcuterie to be properly regulated or figured out. We need an incubator where preservation could happen legally and recipes could be figured out.

Buyer: "Meat could use more infrastructure, transport, further processing, curing, fridges, a communal smokehouse."

wholesaling, and distribution of diversified product offerings of meat from animals raised in New York and adjacent states. It would receive carcasses (beef, pig, lamb, and goat, and poultry) from a NYS slaughterhouse and would then serve as a site for further processing and redistribution to wholesale buyers such as retailers, restaurants, institutions, and manufacturers.

A meat center could be co-located with any of the proposed NYC-based food hubs or it could be located within existing industrial food clusters in Brooklyn, Queens, or the Bronx. Ideally, it would co-locate with other wholesale food distribution and/or aggregation businesses specializing in local products in order to facilitate scale for local food logistics.

Programmatic components may include butchery classes and training for chefs and butchers, culinary classes on whole animal utilization and menu management, and restaurant charcuterie production. Complementary tenants may include a butchery and culinary arts training center, as well as wholesalers and distributors of complementary food and beverage items. Distribution to NYC and upstate would facilitate backhaul opportunities.

A local meat center would create well-paid jobs in New York City (the average butcher's salary in New York State is \$37,730.)⁹ Bringing whole carcasses into the city provides opportunities for new butcher shops specializing in local meat, entrepreneurs focused on charcuterie and smoked

⁹ http://www.bls.gov/oes/current/oes_ny.htm#35-0000.

products, and the other types of services that are ancillary to a food distribution hub such as trucking, building maintenance and operations, facility management, and other community businesses such as restaurants, local shops, and hardware stores.

Explore neighborhood food hubs

Task Force research supports additional neighborhood-based food hub projects beyond the Bronx regional food hub. While an anchor food hub in the Bronx would serve as a nexus of connectivity between NYC and the regional food system, it cannot alone meet the City's total demand for regional food distribution and economic opportunity. Neighborhood food hubs could streamline distribution and supply chain logistics, create local jobs, encourage entrepreneurship in the food sector, and support food access by increasing the availability of fresh, healthy food in New York City. Neighborhood food hubs may collaborate with the Bronx regional food hub to shape local food market forces in New York City. One or more food hubs in Brooklyn and Queens should be explored as a tool to expand regional food distribution throughout New York City and meet market gaps in wholesale and retail access.

Development of the infrastructure and programmatic elements of the neighborhood food hubs should incorporate community and industry perspectives to ensure an equitable and community-focused approach. This draws significant interest among food justice advocates, as well as neighborhood food growers, manufacturers, entrepreneurs, aggregators and distributors, all of whom share the goal of strengthening the diversity of the food economy throughout the city and fostering resiliency and economic development in partnership with communities. Building on existing community work on food hubs in Brooklyn and throughout the city, the Task Force recommends convening a collaborative process to explore the design and development of one or more neighborhood food hubs as part of the broader food hubs strategy. This process would bring together community stakeholders, advocates, and industry to develop an analysis of existing conditions and a statement of key goals and desired outcomes. Ways to combat existing structural and systemic barriers to inclusion would be featured in this analysis.

A collaborative process could achieve multiple benefits, including economic development; ownership and asset-building opportunities for traditionally marginalized communities and businesses; market access for emerging and hyper-local growers and producers such as urban farmers; access to fresh, local food in the retail marketplace for residents of underserved neighborhoods; and support for small businesses and entrepreneurs in the food sector including MWBEs.

Pursuing one or more neighborhood food hubs would support the Task Force's vision of building a more resilient, equitable food system and work towards addressing market failures in the existing mainstream food distribution system that result in unequal access to fresh, local food by many communities.

- **ACTION:** Convene a Neighborhood Food Hubs Working Group comprised of community-based and industry stakeholders to further evaluate the need, design, and, implementation of a neighborhood food hub project.

Recommendation 3: Enhance NYS Food Brand and Expand Marketing and Education

In order to better feature New York State products and increase their competitiveness, the Task Force supports a NYS state branding campaign to more heavily emphasize the high quality of NYS products. Such a program serves as a platform to market participating products and producers and to inform consumers about the availability and variety of New York products.

Buyers consistently discussed the importance of product traceability within the local consumption movement. Traceability also plays a critical role in food safety and consumer protection in the event of a food-borne outbreak. As the sophistication of the food supply chain increases through the use of food hubs, aggregation, co-packing, and shared distribution resources, the ability to quickly trace food to its source becomes increasingly important.

To achieve more powerful and consistent messaging, the Task Force recommends a focus on food safety issues such as traceability and safe food handling practices. This element strengthens the brand and value of New York State agricultural products.

Existing food safety laws require many food establishments to collect data and maintain records of food safety practices and supplier verification. In addition, many purchasers, distributors,

Producer: Once they start seeing consistent packaging, people will start looking for those products.”

Food service provider: “There needs to be investment in pilot programs and marketing for NYS-grown and NYS-processed products.”

wholesalers, and retail businesses require suppliers to implement food safety and supplier verification practices that go beyond statutory requirements. Several existing trainings, technologies, and programs are available commercially to meet this industry need.

- **ACTION:** New York state should expand the marketing of NY-grown and -processed foods with increased emphasis on the benefits of food safety and traceability.

Recommendation 4: Create an Investment Strategy for Growing the Regional Farm and Food Economy

Investment is needed to expand the regional farm and food economy. Local agriculture and food businesses all along the supply chain need capital to grow and diversify. Businesses also need technical assistance to plan for increasing capacity and product quality, as well as to meet challenging new market and regulatory standards. Access to low-cost capital and access to land are farmers’ top two barriers to entry or growth. Mid-size and large farmers are often highly leveraged, so are cautious about assuming additional financial risk.

The Task Force recommends developing an investment strategy tailored to the needs of all entities along the food supply chain. Such a strategy should target businesses that operate in each sub-sector of regional farming and food distribution to reflect their diversity in range and use of

resources.

This strategy may include both capital and operating funds from public sources, quasi-public sources, and private sources. Public and quasi-public sources may include federal, state and local governments, industrial development agencies, local development corporations, tax incentives, public benefit corporations and community development financial institutions. Private sources may include Farm Credit, not-for-profits, banks, crowd-sourcing (through platforms like Barnraiser, Kickstarter and Indiegogo), private sector investments (individual, corporate, angel, impact, and venture capital), and purchase orders or contracts. Farm Credit in particular has effectively partnered their lending programs with public programs such as Farm Service Agency programs, USDA Loan Guarantee Program, the NYS Farmworker Housing Program and the NYS Linked Deposit Program.

A financing program could also provide technical assistance and education as well as direct funds for capital and operating expenses. One model might be the NYS Healthy Food / Healthy Communities (HFHC) Program, a partnership among NYS, the Low-Income Investment Fund and Goldman Sachs that leveraged \$30 million in private funding using \$10 million in state funds to incentivize the establishment of food stores in underserved communities across NYS. The program was a combination of technical assistance and direct financial support used for development, capital, and operating costs.

On the investor side, food and agriculture have become very attractive investment sectors. In 2014, 42 new funding opportunities launched (up from 26 in 2013): 21 investment funds, 15 accelerators and corporate incubators, and six crowdfunding platforms.¹⁰ However, investors hesitate to invest in farms and local food companies that are not investment-ready, that lack the business planning and financial acumen required to secure growth capital.¹¹

Philanthropic organizations increasingly participate in the regional food supply chain. These groups may offer mission alignment with objectives such as community economic development, improved public health, farmer succession planning, land conservation, education, and innovation. These organizations are often interested in developing funding mechanisms beyond the scope of traditional grant making, such as those that are more focused on business partnerships with farmers and food producers and others in the sector.

Finally, an investment strategy should also include changes to procurement policies, including incorporating local food purchasing preferences or a pricing allowance for additional spending for local food.

- **ACTION:** Identifying public and private funding opportunities for stakeholders in the food supply chain;
- **ACTION:** Improving outreach regarding existing financial resources and access to capital, such as the “Access to Capital for Food and Agriculture” workshops and webinar;
- **ACTION:** Developing a database of traditional and alternative lenders.

¹⁰ Local Economies Project’s Food Hubs Finance study <http://localeconomiesproject.org/initiatives/foodhubs9>
http://www.bls.gov/oes/current/oes_ny.htm#35-0000.

¹¹ www.foodtechconnect.com/2015/06/04/43-new-food-tech-agtech-funding-opportunities-launch-in-2014

IV Ongoing Work

Task Force members identified several important and related topics outside the scope of this report as areas of potential future study. These include:

- transportation efficiencies and access
- energy efficiency, retrofit, and waste reduction
- resiliency planning and climate change mitigation
- expanding food shed capacity and agricultural production
- urban agriculture
- workforce development, job training, and career pathway development in the food industry
- government food procurement
- consumer purchasing ability and trends as relates to income inequality.

The Task Force encourages future work on these topics and believes there are tremendous opportunities to advance these issues.

The Task Force believes considerable progress on all recommendations can be made within 12 months. To advance the work described above, the Task Force recommends an ongoing upstate-downstate collaboration on the regional food system to inform strategic investments and drive growth and innovation in agricultural production, regional food processing, distribution systems, transportation, warehousing, procurement, merchandising, and consumption of regional foods across all market and demographic segments.

Appendix 1: Members of the NYS-NYC Regional Food Hub Task Force

New York City:

Alicia Glen, Deputy Mayor for Housing and Economic Development, Co-Chair
Barbara Turk, Director of Food Policy (Designated Co-Chair)
Maria Torres-Springer, President of the New York City Economic Development Corporation
(Tom McKnight, Executive Vice President)
Dr. Mary Bassett, Commissioner of Department of Health and Mental Hygiene (Cathy Nonas,
Senior Advisor)
Emily Lloyd, Commissioner of Department of Environmental Protection
Maya Wiley, Counsel to the Mayor
Nilda Mesa, Director of Sustainability

New York State:

Richard Ball, Commissioner of Department of Agriculture & Markets, Co-Chair
Howard Zemsky, President & CEO of Empire State Development (Linda LaViolette, Director of
Farmers Markets)
Courtney Burke, Deputy Secretary for Health (Rose Duhan, Assistant Secretary)
Ron Thaniel, Deputy Secretary of Transportation
RoAnn Destito, Commissioner of Office of General Services (Patricia Kelly-Sbrega)
Patrick Hooker, Deputy Secretary for Food and Agriculture (Liz Harris, Assistant Secretary)

Food Hub Experts

Adam Friedman, Executive Director of the Pratt Center for Community Development
John Fisk, Director, Wallace Center at Winrock International

Task Force Staff

Challey Comer, Chief of Staff, Department of Agriculture and Markets
Molly Hartman, Senior Advisor for Food Policy, Office of the Deputy Mayor for Health and Human
Services
Julie Stein, Vice President, New York City Economic Development Corporation

Appendix 2: List of interviewees

Melissa Autilio Fleischut, NYS Restaurant Association
Marty Broccoli, Upstate NY Growers and Packers, CCE Oneida County
Margaret Brown, National Resources Defense Council
John Brusie, Ginsberg's Institutional Foods, Inc.
Craig Cashman, Watershed Agricultural Council
Ned Chapman, Sunnyside Gardens
Dara Cooper, Bedford Stuyvesant Restoration Corporation
Frank Dagele, Dagele Brothers Produce
Matt Delaney, Le Pain Quotidien
Dennis Derryck, Corbin Hill Food Project
Brenda Duchene, Isabahlia Ladies of Excellence Foundation
Tessa Edick, FarmOn! Foundation
Todd Erling, Hudson Valley Agribusiness Development Corporation
Sally Fairbairn, Watershed Agricultural Council
Tanya Fields, The BLK Projek
Jason Finder, The Doe Fund
Ben Flanner, Brooklyn Grange
Richard Giles, Lucky Dog Farm and Lucky Dog Local Food Hub Food Hub
Dennis Glenn, Fairway Market
Jennifer Goggin, FarmersWeb
Matt Gordon, Brooklyn Brewery
Kathleen Harris, Northeast Livestock Processing Service Company
Paloma Hernandez, Urban Health Plan
Jack Hoeffner, Hoeffner Farms, Wholesale Farmers' Market tenant
Jim Hyland, Farm to Table Co-packers
Mark Izeman, Natural Resources Defense Council
Ken Jaffee, Slope Farms
Mark Jaffe, The Fresh Connection
Andrew Kimball, Brooklyn Navy Yard Development Corporation and Jamestown Properties
Robert LaValva, New Amsterdam Market
Bob Lewis, Formerly of NYSDAM
Paul Lipson, Baretto Bay Strategies
Ben Mosner, Mosner Family Brands, Hunts Point Meat Market
Seth Mosner, Mosner Family Brands
Michael Muzyk, Baldor Specialty Foods
Liz Neumark, Great Performances
Lori Raphael, Brooklyn Chamber of Commerce
Elvira Rella, Urban Health Plan
Tony Riccio, Harlem River Yard Ventures
Andrew Rigie, NYC Hospitality Alliance Cristal Rivera, Industry City
Peter Romano, Fairway
Michael Rosen, NYS Food Industry Alliance
Steve Rosenberg, Scenic Hudson
Maggie Rourke, Urban Health Plan
Anne Saxelby, Saxelby Cheesemongers
Dana Stafford, Regional Access
Andrew Tarlow, Restaurateur
Thomas Tramutola, A & J Produce, Hunts Point Produce Market
Marcel VanOoyen, GrowNYC, Greenmarket Co.
Karen Washington, Rise&Root Farm and La Familia Verde Community Garden Coalition
Mark Winston Griffith, Brooklyn Movement Center
Chris Wayne, GrowNYC, Farm Roots Program

Appendix 3: Interview Guide

Key Considerations

- Current involvement/engagement with local food
- Progress in past decade, anticipated shift in next decade
- Organizational mission related to local food (if any) and why
- Perceived factors driving local food trend- locally and nationally
- Barriers (including logistical and financial) to increasing local food activities
- Investments needed to grow local food economy
- The role or policy in driving local food economy growth
- Resources required to grow local food engagement
- Resources to contribute to growth of local food economy
- Challenges that food hub infrastructure will address

Introduction

Karp Resources has been retained to facilitate the Upstate-Downstate Regional Food Hub Task Force.

On the call with me today are:

[Name, Title, Affiliation]

The task force includes the Governor’s Executive Chamber, Empire State Development Corporation, NYS Department of Agriculture and Markets, the NYC Mayor’s Office and the NYC Economic Development Corporation.

The goal of the task force is to develop an action plan that will guide strategic infrastructure and programmatic investments in New York’s regional food economy.

In this phase of work we are interviewing “subject matter experts”, including but not limited to producers, buyers, distributors, processors, industry associations and local food organizations.

In order to encourage open dialogue, your responses will be aggregated with the other 29 interviews and not attributed to you directly.

Expect this interview to take [30/60 minutes]

Before we begin do you have any questions?

QUESTIONS FOR EVERYONE

This question set is the first part of the interview.

Framing: To begin, I have some questions now that we are asking everyone. These questions are aimed at broadening our understanding of your organization, barriers to growth in our existing regional food system, and opportunities for city/state investment (For internal understanding: These questions will serve as an initial framework and should be used to guide the rest of the conversation.)

1. How do(es) you/your company/organization define “LOCAL”?
2. Why does your company/organization support local foods or products?
3. Do you expect demand for local foods to grow over the next 10 years? If so, why and in what ways? (What will prompt that growth and what evidence do you see to indicate that growth will continue—something like that...)
4. In your experience, what are the greatest obstacles to growing the local food economy/increasing access to locally grown/produced foods in NYC.

5. What investments could be made by the public or private sector that would enable your company/organization to expand its local food activity/engagement? (infrastructure/ programmatic/etc.)
6. What specific policy or regulatory changes could be made that would enable your company/organization to expand its local food activity/engagement?

Specific Subject Matter Expert Questions

This question set will inform the second part of the interview.

(These questions will help guide continued conversation and will capture information specific to our individual subject matter experts.)

Producers

Name,

Business/Farm background

- Where are you located
- How long have you been farming
- What do you grow/produce
- Volume (in dollars/tons/acres);
- Do you have a surplus of any products? In what situations?
- Describe your facilities (acreage, infrastructure, vehicles)
- Who works for you and what do they do
- Ancillary businesses? (Prompt for vertically and horizontally integrated businesses as well as anything else)

Sales and Marketing

- Where do you sell your product/Who are your buyers? (type of buyer, location and distance)
 - Which buyers are most effective for your business, why
 - Which buyers demand consistent supply
 - Do you have sufficient volume to meet your buyers' needs
 - Do your buyers aggregate your product with other producers
- Describe your process of getting product from farm to market,
 - Do you work with a broker/distributor, etc.
 - How is your product transported
 - Is this ideal? What would make it better?
- Is your product differentiated at market (farm brand, 'local/natural/organic/pride of NY,' etc.)
- Has your marketing changed over the last 5 - 10 years? How/Why?
- What changes have you seen in the marketplace/demand in that time?
- What challenges do you face in getting product to market
 - What would facilitate sales downstate?
- What changes are needed to facilitate downstate sales? (your business and broader context)
 - What infrastructure is required
 - Knowledge? Connections? Policy/regulatory?

Infrastructure

- What infrastructure do you have or need on your farm that would facilitate downstate sales
- Do you utilize any off-farm infrastructure? If so, describe (what, where, cost, quality of service, gaps in services).
- Are your current infrastructure resources sufficient to meet your current needs? Projected future needs? If not, what specifically is insufficient?
- Is there infrastructure of any kind that you are aware of in the region that is currently underutilized? (e.g. cold storage, backhaul opportunities, commercial kitchen space, etc.)
- [How] have you been involved in efforts around local food distribution to NYC (or other locations) in the past?
 - What challenges do you see?

- What solutions would you recommend?
- Do you think there is a need for one or more facilities in NYC to serve as centralized hub of local food activity? If so,
 - What activities would you like to see there?
 - Where should it/they be located order to be useful and used by your organization?
 - Would this hub help you grow your business (yes/no)? Would it help other businesses in the supply chain (yes/no)?

Partnerships with farmers

- Do you currently partner with any other farms or farmers? If so, please describe. (Examples: coordinating routes/transport of products, equipment sharing, co-branding, etc.)
- Are you open to these kinds of partnerships, or do you prefer to work independently?

Resources/supports

- What resources or supports do you currently use? (Examples: technical assistance, grants or capital loans, knowledge, infrastructure, etc.)
- What resources or supports might you utilize if they were available?

Opportunities and Challenges

- Are you interested in expanding your operation? If so, how? If not, why not? (e.g. new crops, new acreage, new infrastructure, new markets)
- What efforts have you made toward expansion?
 - What are your main barriers to expansion? Prompts: land access, access to capital, infrastructure, limits of current markets, access to new markets
- What supports or resources would be most helpful in expanding your operation?

Concluding Questions

Are there any other thoughts / ideas / suggestions you would like to share?

FOR ALL BUYERS (not Food Hubs, see below)

Restaurants, retail, distributors, manufacturers, institutions, non-profit (meal providers/anti-hunger groups)

Name

Name of business

Location of business (address, city, zip)

Business type: (Restaurant, retail, distributor, manufacturer, institution, non-profit (meal providers/anti-hunger group)

Number of customers/meals served per ____.

Annual revenue or gross sales

Number of employees: FT, PT, Seasonal

How many locations does your company operate/service in the New York City metro area? (For non-profits; how many locations where customers access your services) ____

Business Overview and Sourcing

Describe your business (size, volume of customers, price point, marketing angle)

- How are food purchasing decisions made (who makes decisions how are they made, individual locations or on a centralized)
- What factors are considered when purchasing (Price, quality, local, organic, flavor, nutrition, seasonality, flexibility in menuing or lack thereof, etc.). Which are most important?
- What requirements do you have for suppliers:
 - Prompt for: food safety (GAP, HACCP, etc.), packing/packaging, nutritional specifications, certifications, insurance, other

Local Food

Does your company/organization intentionally purchase LOCAL foods? Yes/No

If no,

Why not?

(Prompt for: price, shelf-life, flavor/taste, packaging, consistencey, availability of delivery/distribution/availability of sufficient volume, availability of graded product, availability of specific varieties/animal breeds, not offered by vendor, not a priority for my company, insufficient customer demand, other)

Have you ever purchased local foods in the past?

What would increase your likelihood of buying local product?

If yes,

What kinds of locally produced foods have you purchased in the past year?

(Prompt for Beef, Pork, Lamb, Chicken, Goat, Eggs, Seafood (wild), Seafood (aquaculture/farmed), Vegetables, Fruits, Grains, Minimally processed fruits and veg (e.g. fresh cut, washed, frozen), Milk, Cheese and butter, Value added (sauces, pickles, jams, salsas, baked goods, etc.), Bread and baked goods, Beer/Wine/Liquor, Other)

Yes and No

What are your experiences with/perceptions of local food (prompt for product quality, pricing, service from farmers, shelf life, flavor)

Why do you buy local foods/what prevents you from buying local foods

Are you willing to pay more for local food? How much? Can you pass that along to your customers?

- How do you source locally grown foods? (Describe supply chain, relationships along supply chain) Is this ideal?
- Who are your suppliers of local foods (specific names, distributor names, relationships)
- Can you estimate the percentage of your food budget that was spent on local foods in 2014? How does this compare with your expenditures on local foods 5/10 years ago?
- Would you like to buy more local foods? Specific products?
- What are barriers to buying more local foods?
- If these barriers were eliminated, how much (%) of your food budget could you imagine spending on local foods?
- What kinds of services, resources, or physical places/infrastructure would make it easier for you to purchase more local food? (prompt if necessary: knowing how to find farmers, knowing what's available, distribution service, etc.) – if physical infrastructure is described, get detail on where it should be, if they would come there, etc.

- Can you imagine any programs, incentives, resources, or supports that would help you to purchase more local product?
- How do you expect your local food purchases to change in the next 5 years? Why? (Prompt for availability, pricing, consumer interest, ownership interest, quality, other)

Infrastructure

- What infrastructure do you have or need for perishable foods? (Distinguish on-site and satellite e.g. warehouses) If so, describe (what, where, cost, quality of service, gaps in services).
- Do the needs differ for local food purchases?
- Are your current infrastructure resources sufficient to meet your current needs? Projected future needs? If not, what specifically is insufficient?
- Is there infrastructure of any kind that you are aware of in the region that is currently underutilized? (e.g. cold storage, backhaul opportunities, commercial kitchen space, etc.)
- Do you think there is a need for one or more facilities in NYC to serve as centralized hub of local food activity? If so,
 - What activities would you like to see there?
 - Where should it/they be located order to be useful and used by your organization?
 - Would this hub help you grow your business (yes/no)? Would it help other businesses in the supply chain (yes/no)?

Appendix 4: Survey

NYS-NYC Food Hubs Task Force

Stakeholder Survey- DRAFT 3/23/15

Goal: to understand programmatic and infrastructure needed to grow the local food economy

ASSUMPTION: the survey taker will have been routed into the appropriate survey (i.e. they will have been pre-identified as Buyers, Producers, or Supporters). I think we can let manufacturers self identify as either producers or buyers for the purposes of this survey.

START with Introduction language about the project. Include statement that all information will be aggregated with other survey data and that confidentiality will be protected.

Survey Profile Info

- Name
- Title
- Organization
- Type of organization (menu selection- could be a select up the 3 since several businesses hit multiple categories)
 - Farm
 - Manufacturer/Processor
 - Distributor/Purveyor
 - Wholesaler
 - Food Retail
 - Restaurant
 - Caterer
 - Food service
 - Congregate or institutional Meal Program
 - Emergency food provider
 - Nonprofit
 - Government agency
 - Funder/philanthropy
 - Advocate
 - Other: _____
- Number of employees
 - 1-5
 - 6-10
 - 7-20
 - 21-50
 - more than 50

QUESTIONS FOR EVERYONE

7. How does your company/organization define "LOCAL"?
 1. Grown less than 150 miles away
 2. Grown less than 250 miles away
 3. Grown in NY
 4. Grown in NY or adjacent states
 5. Grown within a day's drive of NYC
 6. Grown, produced, or processed less than 150 miles away
 7. Grown, produced, or processed less than 250 miles away

8. Grown, produced, or processed in NY
 9. Grown, produced, or processed in NY or adjacent states
 10. Grown, produced, or processed within a day's drive of NYC
 11. My company/organization does not have a definition of local.
 12. Other: _____
8. Why does your company/organization support local foods? Please rank your top three reasons.
1. Product quality or freshness
 2. Shorter supply chains
 3. Environmental protection
 4. Farmland/open space preservation
 5. Support local farmers
 6. Support local business, community and economy
 7. To meet customer demand
 8. To meet internal corporate sustainability objectives
 9. Other _____

[RECOMMENDATION: BREAK HERE AND MOVE TO SECTOR QUESTIONS. THEN ADD THE FOLLOWING QUESTIONS FOR EVERYBODY TO THE END OF EACH GROUP'S SURVEY – FLOW WILL BE MUCH BETTER.....AND BUILD UP TO A FIRMER STATEMENT ABOUT HOW FOOD HUBS CAN/CAN NOT SOLVE A PROBLEM FOR THEM.....]

9. Do you expect demand for local foods to grow over the next 10 years? (Y/N)
1. If yes, why do you expect demand to grow? (What will prompt that growth and what evidence do you see to indicate that growth will continue—something like that..)
 2. If no, why not?
10. Does you do business (buy, sell or otherwise engage with) a Food Hub?
1. Yes
 2. No
11. If yes, list those that you are familiar with, and how you've engaged with them
1. _____
 2. _____
 3. _____
 4. _____
 5. _____
 6. etc
12. (If yes) Please rank the top three benefits that Food Hubs provide to your business
1. Product availability
 2. Quality
 3. Freshness
 4. Consistency
 5. Price
 6. Suffient quantities to meet demand
 7. Traceability
 8. Packaging
 9. Branding
 10. Marketing
 11. Ability to plan for future growing seasons
 12. Other
13. (If yes) Do you anticipate your dealings with Food Hubs will change in the next 5 years?
1. Yes – tell us how
 2. No – tell us why not
14. In your experience, what are the greatest obstacles to growing the local food economy (increasing demand for and sales of locally produced food)? (select all that apply)
1. Access to capital
 2. Infrastructure for processing products (e.g. facilities for animal slaughter, nut shelling)
 3. Distribution/transportation/logistics

4. Size/availability of storage facilities
 5. Technical assistance
 6. Labor/human resources
 7. Product consistency
 8. Product availability
 9. Consumer education on benefits of local foods
 10. Wholesale buyer education on benefits of local foods
 11. Insufficient demand for local foods
 12. Lack of willingness to pay a premium for local foods
 13. Policy/regulation
 14. COMMENT: _____
15. What specific policy or regulatory changes could be made that would enable your company/organization to expand its local food activity/engagement? (FILL IN THE BLANK)
 16. What 3rd party investments could be made by the public or private sector that would enable your company/organization to expand its local food activity/engagement?
 17. What can your organization do to grow the local food economy? (Please check all that apply)
 1. Produce more food
 2. Buy more food
 3. Provide distribution services
 4. Provide sales services
 5. Provide business services (planning, finance, marketing, e.g.)
 6. Provide capital
 7. Provide buyer education
 8. Provide producer education
 9. Provide certification services
 10. Other (Please explain) _____
 18. If one or more facilities were established in New York City to serve as centralized hubs of local food activity (with services, for example, that might include product aggregation, processing, sales, marketing, distribution, logistics, education and/or training), where would it / they need to be located in order to be useful and used by your organization? (Check all that apply)
 1. Bronx
 2. Brooklyn
 3. Queens
 4. Manhattan
 5. Staten Island
 6. Add Specific Location within selected borough _____
 19. If one or more facilities were established elsewhere in New York State to serve as a centralized hub for local food, where could they be located to best serve your organization?
 1. Long Island
 2. Hudson Valley
 3. Catskills
 4. Capitol District area
 5. Southern Tier
 6. Finger Lakes
 7. Adirondacks
 8. Greater Rochester area
 9. Greater Buffalo area
 10. Greater Syracuse area
 11. Other (please specify)
 20. Why did you select these areas?
 1. (Open answer)

21. What requirements do you think are important when considering the potential location(s) in a food hub facility?
1. Close / easy proximity to highways
 2. Access to public transit
 3. Located in or near a cluster of other food businesses (i.e. shared services and/or supply networks to facilitate processing and purchasing)
 4. Access to specific infrastructure (such as rail, water, high-speed internet / fiber, etc.)—please specify
 5. Access to concentration of farms
 6. Access to concentration of buyers
 7. Access to certain employee pools
 8. Other—please specify

FOR ALL BUYERS (not Food Hubs, see below)

Restaurants, retail, distributors, manufacturers, institutions, non-profit (meal providers/anti-hunger groups)

1. How many locations does your company operate/service in the New York City metro area? (For non-profits; how many locations where customers access your services) _____
 1. 1
 2. 2-5
 3. 6-10
 4. 11-25
 5. more than 25
2. Are food purchasing decisions made by individual locations or on a centralized basis?
3. Does your company/organization intentionally purchase LOCAL foods? Yes/No
 1. Yes
 2. No
4. Rank the **top five** reasons you do or don't purchase local foods
 1. Price
 2. Availability
 3. Quality (flavor, unique attributes)
 4. Consistency
 5. Shelf-life
 6. Packaging
 7. Availability of distribution / delivery
 8. Company mission or priority
 9. Customer demand
 10. Other (please explain)
5. What kinds of locally produced foods have you purchased in the past year? (check all that apply)
 3. Beef
 4. Pork
 5. Lamb
 6. Chicken
 7. Turkey / other poultry
 8. Goat
 9. Eggs
 10. Seafood (wild)
 11. Seafood (aquaculture/farmed)
 12. Vegetables
 13. Fruits
 14. Grains
 15. Minimally processed fruits and veg (e.g. fresh cut, washed, frozen)
 16. Milk
 17. Cheese and butter

18. Value added (sauces, pickles, jams, salsas, baked goods, etc.)
 19. Bread and baked goods
 20. Beer/Wine/Liquor
 21. Other _____
 22. None _____ (explain)
6. How do you buy locally grown foods? Check all that apply
11. Farmers deliver directly to me
 12. Pick up at farm
 13. Pick up at farmers' market
 14. Purchase from distribution companies that specialize in local foods (give examples)
 15. Purchase from mainstream or broadline distributors that carry but do not specialize in local foods
 16. Purchase from "virtual food hub" _____(name them)
 17. I don't purchase local foods
 18. Other
7. Please estimate the percentage of your food budget that was spent on local foods in 2014?
- a. 1-10%
 - b. 11-25%
 - c. 26-50%
 - d. 51% or more
8. How does this compare with your expenditures on local foods 5 years ago? (OR 10 YEARS AGO?)
- a. Increase of 50% or more
 - b. 26-50% increase
 - c. 16-25% increase
 - d. 11-15% increase
 - e. 0-15% increase
9. What kinds of locally produced foods would you purchase if you had better access to them? (use list from above)
- a. Beef
 - b. Pork
 - c. Lamb
 - d. Chicken
 - e. Turkey / other poultry
 - f. Goat
 - g. Eggs
 - h. Seafood (wild)
 - i. Seafood (aquaculture/farmed)
 - j. Vegetables
 - k. Fruits
 - l. Grains
 - m. Minimally processed fruits and veg (e.g. fresh cut, washed, frozen)
 - n. Milk
 - o. Cheese and butter
 - p. Value added (sauces, pickles, jams, salsas, baked goods, etc.)
 - q. Bread and baked goods
 - r. Beer/Wine/Liquor
 - s. Other _____
 - t. None _____ (explain)
10. How would you like to be able to buy locally grown foods? Check all that apply (use same list from above)
- a. Farmers deliver directly to me
 - b. Pick up at farm
 - c. Pick up at farmers' market

- d. Pick up pre-arranged order at farmers' market
 - e. Purchase from distribution companies that specialize in local foods (give examples)
 - f. Purchase from mainstream or broadline distributors that carry but do not specialize in local foods
 - g. Purchase from "virtual food hub" _____(name them)
 - h. Pick up at warehouse or market
 - i. Shop at wholesale farmers market where I can compare offerings and prices
 - j. I don't purchase local foods
 - k. Other
11. How do you expect your local food purchases to change in the next 5 years?
- a. Increase by 50% or more
 - b. 26-50% increase
 - c. 16-25% increase
 - d. 11-15% increase
 - e. 0-15% increase
12. Why do you expect your local food purchases to change in this way? Select top 3
- a. Price
 - b. Availability
 - c. Quality (flavor, unique attributes)
 - d. Consistency
 - e. Shelf-life
 - f. Packaging
 - g. Availability of distribution / delivery
 - h. Company mission or priority
 - i. Customer demand
 - j. Other (please explain)
13. What keeps you from purchasing more local foods? Please check up to three reasons.
- a. Price
 - b. Availability
 - c. Quality (flavor, unique attributes)
 - d. Consistency
 - e. Shelf-life
 - f. Packaging
 - g. Availability of distribution / delivery
 - h. Company mission or priority
 - i. Customer demand
 - j. Other (please explain)
14. If these barriers were eliminated, how much (%) of your food budget could you imagine spending on local foods?
- a. Increase by 50% or more
 - b. 26-50% increase
 - c. 16-25% increase
 - d. 11-15% increase
 - e. 0-15% increase

FOR FARMERS

1. Scale of production (by acres in production)
2. Product categories (check all that apply)
 1. Beef
 2. Pork
 3. Lamb
 4. Chicken
 5. Turkey / other poultry

6. Goat
 7. Eggs
 8. Seafood (wild)
 9. Seafood (aquaculture/farmed)
 10. Vegetables
 11. Fruits
 12. Grains
 13. Minimally processed fruits and veg (e.g. fresh cut, washed, frozen)
 14. Milk
 15. Cheese and butter
 16. Value added (sauces, pickles, jams, salsas, baked goods, etc.)
 17. Bread and baked goods
 18. Beer/Wine/Liquor
 19. Other _____
3. Current geographic markets you sell into:
 1. New York State (excl NYC)
 2. New York City
 3. New England (CT, MA, VT, NH, RI, ME)
 4. Mid-Atlantic (NJ, PA, VA, DE, MD, Washington DC)
 4. Current marketing methods (check all that apply and indicate % of total sales in each—as best you can)—2010-2014)
 1. Farmers' Markets
 2. CSAs
 3. On-farm stores
 4. Wholesale markets (Hunts Point, Philadelphia, eg.)
 5. Supermarket/Retail distribution centers
 6. Direct-store sales (Wegman's, e.g.)
 7. Food Hub (please specify)
 8. Wholesalers/Distributors
 9. Other Direct-Retail (describe)
 10. Other Direct-Wholesale (describe)
 5. Please rank the three most desirable marketing channels for your product
 1. Farmers' Markets
 2. CSAs
 3. On-farm stores
 4. Wholesale markets (Hunts Point, Philadelphia, eg.)
 5. Supermarket/Retail distribution centers
 6. Direct-store sales (Wegman's, e.g.)
 7. Food Hub (please specify)
 8. Wholesalers/Distributors
 9. Other Direct-Retail (describe)
 10. Other Direct-Wholesale (describe)
 6. Please tell us in just a few words why these are preferred?
 7. What were your three most desirable marketing channels for your product five years ago? (rank top 3)
 1. Farmers' Markets
 2. CSAs
 3. On-farm stores
 4. Wholesale markets (Hunts Point, Philadelphia, eg.)
 5. Supermarket/Retail distribution centers
 6. Direct-store sales (Wegman's, e.g.)
 7. Food Hub (please specify)
 8. Wholesalers/Distributors

9. Other Direct-Retail (describe)
 10. Other Direct-Wholesale (describe)
 11. There has been no change?
8. What are the factors that contribute most to this change?
 1. Growing interest in local food
 2. More distribution services
 3. New Food Hub(s)
 1. Specify
 4. Better prices
 5. Labor factors
 6. Customer diversity
 7. Customer relationships
 8. Just learning about range of options
 9. Other (please explain)
 9. Please tell us, if all conditions were met, a preferred or ideal distribution of channels for your products (rank top 3) :
 1. Farmers' Markets
 2. CSAs
 3. On-farm stores
 4. Wholesale markets (Hunts Point, Philadelphia, eg.)
 5. Supermarket/Retail distribution centers
 6. Direct-store sales (Wegman's, e.g.)
 7. Food Hub (please specify)
 8. Wholesalers/Distributors
 9. Other Direct-Retail (describe)
 10. Other Direct-Wholesale (describe)
 10. Please tell us in just a few words why these are preferred?
 11. Are you interested in expanding production
 1. Yes
 2. No
 3. Maybe
 12. What are the greatest barriers to expansion
 1. Access to markets
 2. On-farm infrastructure (specify)
 3. Access to off-farm infrastructure (e.g. cold storage, washing lines)
 4. Access to capital
 5. On-farm labor
 6. Distribution/logistics
 7. Knowledge/skills/technical assistance
 8. Succession plan
 9. Available/affordable land
 10. Ability to combine products with those of other farmers
 11. other
 13. How has your **overall** production (measured in revenue) changed in the past 5 years?
 1. Increase
 1. Up to 10%
 2. 11-20%
 3. 21-50%
 4. 51-100%
 2. Decrease
 1. Up to 10%

2. 11-20%
 3. 21-50%
 4. 51-100%
3. What are the top factors that have contributed to this **overall** increase or decrease?
 1. Access to markets
 2. On-farm infrastructure (specify)
 3. Access to off-farm infrastructure (e.g. cold storage, washing lines)
 4. Access to capital
 5. On-farm labor
 6. Distribution/logistics
 7. Knowledge/skills/technical assistance
 8. Succession plan
 9. Available/affordable land
 10. Other (please explain)
14. What resources will be needed in order to make the changes you anticipate?
 1. Access to more land
 2. Access to capital
 3. Infrastructure building or improvements
 4. Access to distribution services
 5. Access to new markets
 6. New product development
 7. New customers
 8. Other (please explain)

FOR ADVOCATES/SUPPORTERS

1. Tell us about your organization. What services or key activities do you engage in?
 1. Educational programming
 2. Technical assistance
 3. Policy/advocacy
 4. Funding or fiscal support
 5. Market development
 6. Agricultural production/gardening
 7. Sales and Marketing
 8. Access to Capital
 9. Other (please specify)
2. Which of the following best describes your organization's reasons for engaging with local farms and foods?
(Please select up to three priority areas)
 1. Aligns with our mission
 2. Support local farmers
 3. Support local community
 4. Economic development/support local economy
 5. Watershed protection
 6. Reduced environmental impact of food supply chains
 7. Farmland protection/open space preservation
 8. Community/public health
 9. Social justice
 10. Fair trade
 11. Other (please explain)
3. How have the services and programming you provide changed over the past 5 years?
 1. Grown 26% or more

2. Grown up to 25%
 3. Stayed the same
 4. Decreased up to 25%
 5. Decreased 26% or more
4. What factors have most contributed to this change (open ended, per consensus of reviewers)
 5. How do you anticipate that your services and programming will change in the next 5 years, if at all? (OR what needs do you see emerging that will change your programming and services in the next 5 years?)
 1. Grow
 1. Up to 10%
 2. 11-25%
 3. 26-50%
 4. 51% or more
 5. 26% or more
 2. Shrink
 1. Up to 10%
 2. 11-25%
 3. 26-50%
 4. 51% or more
 5. 26% or more
 3. Stay the same
 6. What types of resources will you need in order to address emergent needs to continue to serve your mission / members / constituents / community?
 1. Better engagement with local food community
 2. Education and skill building for me/my staff
 3. Access to capital or credit
 4. More supportive policy
 5. More or diversified partnerships (please specify)
 6. Better technology and information systems
 7. Other (please specify)

FOR FOOD HUBS

1. Where are you located?
 - a. NYC (specify borough)
 - b. Outside NYC (specify county and miles from NYC)
2. What kind of food hub are you? (check all that apply)
 - a. Physical building
 - b. Trucking services
 - c. Virtual (internet-based marketing, brokerage/sales)
 - d. Marketing
 - e. Training and technical assistance (please explain)
 - f. Other (explain)
3. Please tell us about your **physical** assets
 - a. Building (SF _____)
 - i. Rent
 - ii. Own
 - b. Trucks (type/how many)
 - i. Lease
 - ii. Own
 - c. Processing equipment (type)
 - d. Packaging equipment (type)
 - e. Grading equipment
 - f. Refrigeration (detail)
 - g. Freezers (detail)

- h. Other (detail)
4. Who are your customers?
 - a. Wholesale buyers (please tell us what % of each)
 - i. Retail
 - ii. Restaurants
 - iii. Institutions
 - iv. Distributors
 - v. Manufacturers
 - b. Consumers (please tell us what % of each)
 - i. CSA
 - ii. Own retail shop or restaurant
 - iii. Home delivery
 - iv. Farmers markets
 - v. Other
 5. What **products** do you carry and sell?
 - a. Beef
 - b. Pork
 - c. Lamb
 - d. Chicken
 - e. Goat
 - f. Eggs
 - g. Seafood (wild)
 - h. Seafood (aquaculture/farmed)
 - i. Vegetables
 - j. Fruits
 - k. Grains
 - l. Minimally processed fruits and veg (e.g. fresh cut, washed, frozen)
 - m. Milk
 - n. Cheese and butter
 - o. Value added (sauces, pickles, jams, salsas, baked goods, etc.)
 - p. Bread and baked goods
 - q. Beer/Wine/Liquor
 - r. Other _____
 6. What **services** do you provide?
 - a. Grading
 - b. Aggregation
 - c. Washing
 - d. Packing
 - e. Refrigeration
 - f. Technical assistance
 - i. Food safety
 - ii. GAP
 - iii. Business planning
 - iv. Marketing assistance
 - v. Access to capital
 - vi. Education (describe)
 - g. Market development
 - h. Software systems: labeling, ordering, sales, invoicing, etc.
 - i. Sales support
 - j. Certification (specify)
 - k. Policy/advocacy (describe)
 7. What services would you like to provide that you can or do not today?
 - a. Grading

- b. Aggregation
 - c. Washing
 - d. Packing
 - e. Refrigeration
 - f. Technical assistance
 - i. Food safety
 - ii. GAP
 - iii. Business planning
 - iv. Marketing assistance
 - v. Access to capital
 - vi. Education (describe)
 - g. Market development
 - h. Software systems: labeling, ordering, sales, invoicing, etc.
 - i. Sales support
 - j. Certification (specify)
 - k. Policy/advocacy (describe)
 - l. Other (please specify)
8. What **products** would you like to carry and sell?
- a. Beef
 - b. Pork
 - c. Lamb
 - d. Chicken
 - e. Goat
 - f. Eggs
 - g. Seafood (wild)
 - h. Seafood (aquaculture/farmed)
 - i. Vegetables
 - j. Fruits
 - k. Grains
 - l. Minimally processed fruits and veg (e.g. fresh cut, washed, frozen)
 - m. Milk
 - n. Cheese and butter
 - o. Value added (sauces, pickles, jams, salsas, baked goods, etc.)
 - p. Bread and baked goods
 - q. Beer/Wine/Liquor
 - r. Other _____
9. What is limiting you from carrying these items
- a. Lack of supply
 - b. Lack of space
 - c. Lack of equipment to hold or process
 - d. Lack of distribution
 - e. Unknown markets
 - f. Price
 - g. Quality
 - h. Consistency
 - i. Labor constraints
 - j. Other (please specify)
10. What services should be provided upstream or downstream to support your organization's health or growth:
- a. Grading
 - b. Aggregation
 - c. Washing
 - d. Refrigeration
 - e. Packing

- f. Technical assistance
 - i. Food safety
 - ii. GAP
 - iii. Business planning
 - iv. Marketing assistance
 - v. Access to capital
 - vi. Education (describe)
 - g. Market development
 - h. Software systems: labeling, ordering, sales, invoicing, etc.
 - i. Sales support
 - j. Certification (specify)
 - k. Policy/advocacy (describe)
 - l. Other (please specify)
11. What is your organizational structure?
- a. For-profit
 - b. Non-profit
 - c. Cooperative
 - d. Government-owned and run
 - e. Other
12. How have your services and programming you provide changed over the past 5 years?
- a. Expanded
 - i. Up to 10%
 - ii. 11-25%
 - iii. 26-50%
 - iv. 51% or more
 - v. 26% or more
 - b. Shrunk
 - i. Up to 10%
 - ii. 11-25%
 - iii. 26-50%
 - iv. 51% or more
 - v. 26% or more
 - c. No change
13. How do you anticipate that your services will change in the next 5 years?
- a. Expanded
 - i. Up to 10%
 - ii. 11-25%
 - iii. 26-50%
 - iv. 51% or more
 - v. 26% or more
 - b. Shrunk
 - i. Up to 10%
 - ii. 11-25%
 - iii. 26-50%
 - iv. 51% or more
 - v. 26% or more
 - c. No change
14. Why do you expect your services to change in this way?
- a. Increase/Decrease in Supply
 - b. More or lack of Space
 - c. Equipment to hold or process
 - d. More or lack of distribution

- e. Markets
 - f. Price
 - g. Quality
 - h. Consistency
 - i. Labor
 - j. Other (please specify)
15. What keeps you from handling more local food? Please select all that apply.
- a. Availability of product
 - b. Price
 - c. Shelf-life
 - d. Quality (grading, appearance, flavor)
 - e. Packaging
 - f. Product consistency
 - g. Availability of specific varieties or animal breeds
 - h. Insufficient customer base
 - i. Certification (HAACP, GAP, e.g.)
 - j. Size/capacity of own facility
 - k. Size/capacity of downstream facilities
 - l. Lack of access to distribution channels
 - m. Inefficient / expensive distribution system
 - n. Other
16. What is required to eliminate these barriers?
- a. Access to capital
 - b. Processing infrastructure
 - c. Distribution/transportation/logistics
 - d. Size/availability of storage facilities
 - e. Technical assistance
 - f. Labor/human resources
 - g. Product consistency
 - h. Product availability
 - i. Consumer education on benefits of local foods
 - j. Wholesale buyer education on benefits of local foods
 - k. Insufficient demand for local foods
 - l. Lack of willingness to pay a premium for local foods
 - m. Policy/regulation
 - n. Other (please specify: _____)
17. If these barriers were eliminated, how would it impact your revenue?
- a. Increase
 - i. Up to 10%
 - ii. 11-25%
 - iii. 26-50%
 - iv. 51% or more
 - v. 26% or more
 - b. Decrease
 - i. Up to 10%
 - ii. 11-25%
 - iii. 26-50%
 - iv. 51% or more
 - v. 26% or more
 - c. No change

18. How is your Food Hub funded today?

- a. Grant funding (___%)
 - b. Government funding (___%)
 - c. Private investment (___%)
 - d. Revenue (___%)
19. What is your financial sustainability plan for 2020?
- a. 50% or less self-funded
 - b. 51-75% self funded
 - c. 76-90% self-funded
 - d. 100% self sufficiency
 - e. Don't have financial sustainability plan for 2020

Appendix 5: Economic Impact Analysis

MASS ECONOMICS
620 Massachusetts Ave
Cambridge MA 02139

ORIGINAL

To estimate the total economic impact of potential projects, we first estimated the size and allocation by use (e.g., cold storage, food production) of the proposed buildings. The square footage allocations were then translated to jobs based on typical required square footage per employee for the different uses. These impacts were then categorized into two groups, New Direct Jobs and Other (Supported) Jobs. The new direct jobs—which include those in cold storage, food production, management of space, and outdoor stalls—capture those jobs that are entirely new to the New York City and State economies and would likely not exist in the absence of the proposed new investments.

Other supported jobs include those that will house new office and retail activities; given the nature of these jobs, it is possible that they are displacing activity in other parts of the city or state and that at least a portion of these jobs would exist even in the absence of new investment. Using this method, we estimate that the Bronx Food Hub will generate 60 new direct jobs, with a total annual earnings impact of almost \$2.4 million dollars and will house an additional 29 jobs that collectively pay an estimate \$1.3 million in annual earnings. See Table 1.

The new direct jobs were translated into total jobs impacts using U.S. Bureau of Economic Analysis's *RIMS II Direct Effect Multipliers* for New York City. These multipliers translate direct employment impacts into total employment and earnings impacts by capturing the indirect (supply chain) and induced (wage spending) effects in the city's economy. These were applied only to the new direct jobs, as the other (supported) jobs might exist even without the new investment. When we include the indirect and induced impact, the total effect of the Bronx Food Hub on the New York City economy is 92 jobs paying \$3.6 million in wages annually. In addition, the space will house 29 office and retail jobs that pay almost \$1.3 million in annual wages. See Table 2.

These estimates are useful for assessing the likely economic impacts of investments and for capturing differences in economic impact of different potential uses. They can be used to estimate new employment opportunities, often for local residents, as well as income tax payments associated with different investments. In these ways, such analyses can support (or not) justifications for public investments in food-related infrastructure, including meat hubs, co-packing hub, neighborhood hubs, and any other proposal that is currently in exploration.

It is important, as well, to recognize the potentially transformative nature of food-related investments. Multiplier analyses are based on existing local supply capabilities but in some cases, investments could trigger an evolution in supply chain capabilities that will magnify the effects of investments. For example, the aggregation and distribution hubs being considered for upstate have the potential to expand the state's agricultural base by allowing farmers to profitably grow and sell new products (more leafy greens, varieties of existing crops); effectively extend the selling and growing season through better storage; or access new customers that require packaging capabilities that are not currently available.

SCALED

To estimate the total economic impact of potential projects, we first estimated the size and allocation by use (e.g., cold storage, food production) of the proposed buildings. The square footage allocations were then translated to jobs based on typical required square footage per employee for the different uses. These impacts were then categorized into two groups, New Direct Jobs and Other (Supported) Jobs. The new direct jobs—which include those in cold storage, food production, management of space, and outdoor stalls—capture those jobs that are entirely new to the New York City and State economies and would likely not exist in the absence of the proposed new investments.

Other supported jobs include those that will house new office and retail activities; given the nature of these jobs, it is possible that they are displacing activity in other parts of the city or state and that at least a portion of these jobs would exist even in the absence of new investment. Using this method, we estimate that the Bronx Food Hub will generate 93 new direct jobs, with a total annual earnings impact of almost \$3.5 million dollars and will house an additional 29 jobs that collectively pay an estimated \$1.27 million in annual earnings. See Table 3.

The new direct jobs were translated into total jobs impacts using U.S. Bureau of Economic Analysis's *RIMS II Direct Effect Multipliers* for New York City. These multipliers translate direct employment impacts into total employment and earnings impacts by capturing the indirect (supply chain) and induced (wage spending) effects in the city's economy. These were applied only to the new direct jobs, as the other (supported) jobs might exist even without the new investment. When we include the indirect and induced impact, the total effect of the Bronx Food Hub on the New York City economy is 143 jobs paying over \$5.3 million in wages annually. In addition, the space will house 29 office and retail jobs that pay almost \$1.3 million in annual wages. See Table 4.

These estimates are useful for assessing the likely economic impacts of investments and for capturing differences in economic impact of different potential uses. They can be used to estimate new employment opportunities, often for local residents, as well as income tax payments associated with different investments. In these ways, such analyses can support (or not) justifications for public investments in food-related infrastructure, including meat hubs, co-packing hub, neighborhood hubs, and any other proposal that is currently in exploration.

It is important, as well, to recognize the potentially transformative nature of food-related investments. Multiplier analyses are based on existing local supply capabilities but in some cases, investments could trigger an evolution in supply chain capabilities that will magnify the effects of investments. For example, the aggregation and distribution hubs being considered for upstate have the potential to expand the state's agricultural base by allowing farmers to profitably grow and sell new products (more leafy greens, varieties of existing crops); effectively extend the selling and growing season through better storage; or access new customers that require packaging capabilities that are not currently available.

TABLE 1: Direct and Supported Jobs and Wages Impact			
New Direct Jobs	Sq. Ft	Jobs	Average Wage
Cold Storage Space	29,750	12	\$34,100
Production Space	17,000	33	\$34,100
Management of Space	N/A	5	\$46,500
Outdoor Stalls	N/A	10	\$58,800
TOTAL		60	\$2,355,000
<u>Other (Supported) Jobs Impact</u>	Sq. Ft	Jobs	Average Wage
Office Space	2,750	18	\$46,500
Retail Space	4,250	11	\$37,600
TOTAL		29	\$1,270,000
	53,750	89	\$3,625,000

Table 2: Total Effects of New Direct Jobs			
New Direct Jobs	Sq. Ft	Jobs	Wages
Cold Storage Space	29,750	12	\$409,200
Production Space	17,000	33	\$1,125,300
Management of Space	N/A	5	\$232,500
Outdoor Stalls	N/A	10	\$588,000
Direct Effect Multipliers	RIMS II Industry	Employment	Earnings
Cold Storage Space	Warehouse/Storage	1.3811	1.3572
Production Space	Food/beverage manufacturing	1.5884	1.5283
Management of Space	Food/beverage, wholesale	1.564	1.7164
Outdoor Stalls	Wholesale trade	1.5395	1.9044
Total Effects of New Direct Jobs		Jobs	Wages
Cold Storage Space		17	\$579,700
Production Space		52	\$1,773,200
Management of Space		8	\$372,000
Outdoor Stalls		15	\$882,000
TOTAL		92	\$3,606,900

Table 3: Direct and Supported Jobs and Wages Impact			
New Direct Jobs	Sq. Ft	Jobs	Avg. Wages
Cold Storage Space	50,000	20	\$34,100
Production Space	30,000	58	\$34,100
Management of Space	N/A	5	\$46,500
Outdoor Stalls	N/A	10	\$58,800
TOTAL		93	\$3,480,300
Other (Supported) Jobs Impact	Sq. Ft	Jobs	Avg. Wages
Office Space	2,750	18	\$46,500
Retail Space	4,250	11	\$37,600
TOTAL		29	\$1,270,000
	87,000	122	\$4,750,300

Table 4: Total Effects of New Direct Jobs			
New Direct Jobs		Jobs	Wages
Cold Storage Space	50,000	20	\$682,000
Production Space	30,000	58	\$1,977,800
Management of Space	N/A	5	\$232,500
Outdoor Stalls	N/A	10	\$588,000
Direct Effect Multipliers	RIMS II Industry	Employment	Earnings
Cold Storage Space	Warehouse/Storage	1.3811	1.3572
Production Space	Food/beverage manufacturing	1.5884	1.5283
Management of Space	Food/beverage, wholesale	1.564	1.7164
Outdoor Stalls	Wholesale trade	1.5395	1.9044
Total Effects of New Direct Jobs		Jobs	Wages
Cold Storage Space		28	\$954,800
Production Space		92	\$3,137,200
Management of Space		8	\$372,000
Outdoor Stalls		15	\$882,000
TOTAL		143	\$5,346,000

Appendix 6: Real Estate Gap Analysis, BJH Advisors

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MEMORANDUM

To: Karen Karp, Karp Resources
From: Katie Lyon and Kei Hayashi, BJH Advisors
Date: June 4, 2015
Re: NYS Food Hub Real Estate Gap Analysis

I. Introduction & Goals

As requested by the Regional Food Hub Task Force (RFHTC), BJH Advisors (BJH) conducted a gap analysis for the development and financing of a hypothetical food hub facility in New York City, as part of the NYS Food Hub study being led by Karp Resources. Real estate and locational considerations are critical components of operating feasibility analyses, in particular for industrial users. And, because real estate in New York City is so costly, even in industrial areas, it is often the focus of specific *financial* feasibility analysis, including gap analyses.

The analysis presented below examines the development and occupancy costs, and the potential funding gaps under various scenarios, for a food hub entity. BJH created a model that can be used to size the gap and differentiate subsidy structure, for the food hub as either an owner or tenant of the development.

The RFHTC in consultation with Karp Resources, identified three potential food hub operating types: a Bronx-based food hub, a Brooklyn or Queens-based food hub, and a meat hub. The real estate profile for each of the three models could be very similar. Thus, BJH created just one baseline scenario to test the financial feasibility for all of these three hubs collectively, and conducted sensitivities from this baseline model to examine the impact of New Markets Tax Credit program availability, different development types (e.g. new construction versus rehabilitation/renovation), and additional subsidy structures (access to low cost public land or annual program subsidy).

II. Methodology

BJH employed a static pro forma approach to analyze the financial feasibility, as well as conducted sensitivity analysis to explore the impact of several variables on financial feasibility. The static pro forma models a theoretical food hub after construction and lease-up (e.g. first stabilized year). While the model may or may not be followed by a developer/owner, it is a useful technique to model the economics of projects for comparative purposes.

The static pro forma relies on inputs related to development and land costs, equity and debt assumptions, and operating income (i.e. rent) and expenses. Debt is calculated by dividing net operating income (NOI) by a debt service coverage ratio and then applying that “debt service” into a present value function. The sum of the sources (debt and all forms of equity) is subtracted from development costs to determine the financial feasibility. A positive figure reveals the project is financially feasible. A negative figure indicates the gap in financing that may require subsidy.

The static pro forma approach does not account for the time value of money, or incorporate those variables into outputs or measures of return to an equity investor or developer. Instead the developer’s return is assumed to be 5 percent of total hard costs, a minimum threshold assumed by a developer to establish feasibility.

The model is set up to view the real estate as a separate profit center, and therefore can be used to analyze the food hub operator as either the property owner or the tenant of the facility. As an owner, the analysis assumes the operator would “pay” itself the level of rent modeled, based on market rent. This model assumes the income generated by that rent, plus other real estate income, less real estate expenses is used to size debt. As a tenant, the food hub operator pays rent to the owner/developer, and the gap is the value required to incentivize that private real estate owner or developer to lease the facility to a food hub and make the assumed return.

III. Baseline Assumptions

The following items are key assumptions used in developing the baseline static pro forma. These assumptions were developed by reviewing reports from the Wallace Institute, interviews with food hubs, CoStar reports regarding market rents in the Bronx, Queens, and Brooklyn for industrial, retail and office space, and consultant knowledge and experience related to land prices and construction costs in New York City, incentive programs, tax policy, and standard levels of leverage commonly underwritten.

A. Food Hub Program Assumptions

1. Typical Food Hub Space Allocation

The baseline scenario models a 100,000 square foot industrial lot with an 85,000 square foot building. It is assumed the building includes a 60,000 square foot ground floor and a partial second floor of 25,000 square feet. Thirty-five percent of the total square feet, approximately 30,000 square feet, is dedicated to cold storage and an additional 35 percent is dedicated to traditional warehouse space. Twenty percent of the built square feet, 17,000 square feet is allocated to production space. The remaining 10 percent of space is evenly divided between retail and office space. This program was designed based on conversations with food hubs operating in and near urban areas.

Table 1: Baseline Scenario Space Allocation

Use	Percent of Building Area	Square Feet
Lot Size (SF)		100,000
Building Area (SF)		85,000
Warehouse Space	35%	29,750
Cold Storage Space	35%	29,750
Production Space	20%	17,000
Office Space	5%	4,250
Retail Space	5%	4,250

2. Income and Expense

- **Rent**

Blended, the overall rent for the facility is \$12.60 per square foot, which is based on the market rent for industrial, commercial office, and retail uses as described below and the portion of the facility designated for each use.

- *Warehouse and Production Space:* Without specific locations identified, the baseline model assumes that warehouse and production space will rent for slightly below average market rate in the borough or submarket. The average warehouse rent is \$12.77 in the Bronx and \$13.67 in South Brooklyn. The baseline model assumes all industrial space, including warehouse, cold storage, and production space, will rent for \$12 per square foot. This assumption is based on conversations with food hubs, which indicated that in many cases they sought rent on the low end of market rate. Additionally, hubs that leased production space indicated that tenants often paid below market.
- *Office Space:* It is assumed that office rents for the food hub will be well below market rate for several reasons. First, as explained above, the precedent for food hubs is that space is typically leased slightly below market. Second, it is assumed the location of the food hub will be in an industrial area, not a prime office location. Average Class C office rents are \$25.60 in the Bronx \$27.67 in South Brooklyn. The baseline model assumes office space will rent for \$18 per square foot.
- *Retail Space:* Modeled retail rents are also below average market rents because of food hub willingness and ability to pay, as well as the anticipated location of the hub in a non-retail location. Average retail rents are \$39.08 in the Bronx and \$35.97 in South Brooklyn. The baseline model assumes retail space will rent for \$18 per square foot.

- **Other Income**
 - *Grant Income:* It is assumed the food hub operator is a non-profit entity, which is able to access \$100,000 in grants per year solely related to upkeep and maintenance of its facility. These grants may include philanthropic grants from foundations such as Robert Wood Johnson Foundation or New York State or United States Department of Agriculture funding streams.
- **Expenses**
 - *Vacancy:* It is assumed that at stable occupancy the facility will have a 5 percent vacancy rate.
 - *Operating Expenses:* It is assumed that operating expenses for the facility will be 25 percent of facility revenue (rents and other income).

B. Real Estate Assumptions

1. Development Costs

- **Land**

In the baseline scenario, BJH modeled \$50 per square foot (for the area of the parcel of land) for land costs, or \$5 million total. This value was based on previous analysis of New York City Department of Finance records for vacant land sales that BJH conducted. The figure corresponds to relatively weak, outer borough markets in New York City.
- **Hard Costs**

The baseline scenario assumes the facility is a newly constructed building.

 - *Base Building:* The base building is assumed to be a standard warehouse, which costs \$150 per square foot to construct.
 - *Cold Storage:* Cold storage is assumed to cost an additional \$50 per square foot above the base building costs, or \$1.5 million for 30,000 square feet.
 - *Other Fit Out, Mechanical, and Equipment Costs:* Additional fit out, mechanical, and equipment costs are assumed to be \$3 million. These costs may be associated with production facility equipment, heating and ventilation, special building functions such as a green roof or monitoring systems for coolers and freezers.

- **Soft Costs**

Soft costs are assumed to be 25 percent of hard costs. This formula assumes 20 percent of hard costs allocated for legal, engineering, design, and other fees, as well as 5 percent of hard costs allocated for developer fee.

2. Financing Sources

- **Equity**

- *Developer/Real Estate Owner/Food Hub equity:* BJH modeled equity at 10% of total development costs.
- *New York State Research and Development Authority (NYSERDA) Grants:* BJH modeled a \$1 million grant from NYSERDA for energy efficient coolers, freezers, lighting, and other energy efficiency measures.
- *New Markets Tax Credits:* In the baseline model, BJH assumed the food hub would be located in a census tract that qualifies for New Markets Tax Credits. New Markets Tax Credits is a Federal program designed to drive capital to projects that create jobs in low-income communities. Typical New Markets Tax Credit allocations are awarded to projects in the \$15 to \$20 million range, or a portion of a project at that amount. BJH assumed a \$20 million allocation of credits. Based on a variety of New Markets Tax Credits assumptions, including the market value of the credits and associated fees, New Markets Tax Credit equity, net of fees, is estimated at \$4.3 million.

- **Debt**

BJH sized the loan based on net operating income and a debt service coverage ratio of 1.2.

3. Property Taxes

It is assumed that the food hub will apply for and receive deep property tax abatements through the New York City Industrial Development Agency. Provided this assumption, and for simplicity, therefore no property taxes were modeled in the analysis.

IV. Sensitivities

BJH tested four alternative scenarios to identify the impact of location, construction type, and structure of subsidy on the gap. Two sensitivities were tested based on the physical facility: 1) New Markets Tax Credits and 2) rehabilitated building. These sensitivities explore the impact of changing the location or the development type. In each of these sensitivities, the gap is the estimated value of capital subsidy required to implement the project. Two additional sensitivities examine the impact of providing

a subsidy in a different format: 3) land price and 4) subsidized rents. In these scenarios the gap is in addition to these subsidies.

In each case, BJH altered the selected variable and held all other baseline assumptions constant. The following section explains the alternative scenarios.

A. New Markets Tax Credits Excluded

In the baseline scenario, over \$4 million in equity is derived from New Markets Tax Credits. However, availability of New Markets Tax Credits is based on locating the facility in an eligible census tract. BJH tested the impact of New Markets Tax Credits on financial feasibility by modeling a scenario without New Markets Tax Credits.

B. Rehabilitated Building

Development costs may be reduced by rehabilitating an existing warehouse facility for the food hub. BJH tested the impact of rehabilitation on financial feasibility in this scenario. The base building construction costs were modeled at \$100 per square foot, as opposed to \$150 per square foot for new construction.

C. Land Price

In the baseline scenario, nearly 20 percent of total development costs are due to land purchase of \$5 million. BJH tested the impact of a subsidy in the form of free land on the financial feasibility of a food hub in New York City. This scenario assumes a parcel of land, potentially publicly-owned, is provided to the project at no cost.

D. Subsidized Rents

Subsidy may be provided to a project on the front end through infusion of capital or on an on-going basis through rent subsidies. BJH tested the impact of an \$8 per square foot subsidy on rental income. In this scenario, warehouse/production space generates \$20 per square foot, office space rents for \$26 per square foot, and retail space rents for \$26 per square foot. In the aggregate, this subsidy totals \$680,000 annually. Because this increases the net operating income of the facility, it increases the amount of debt the project can acquire, holding the debt service coverage ratio constant at 1.2.

V. Gap Analysis Findings

Tables 2 and 3 below present a comparison of the gap for the baseline scenario and the sensitivities described above. The baseline scenario models a gap of more than \$10 million. The second scenario, which does not assume New Markets Tax Credits, reveals the highest gap of greater than \$14.3 million. It should be noted that while the subsidized rents scenario presents the lowest gap, this gap is in addition to a \$680,000 per year operating subsidy.

Table 2: Gap Analysis Summary

Scenario	Outstanding Gap
Baseline	\$(10.0M)
Facility Sensitivities	
New Markets Tax Credits Excluded	\$(14.3M)
Rehabilitated Building	\$(5.3M)
Subsidy Structure Sensitivities	
Land Price	\$(5.5M)
Subsidized Rents	\$(5.1M)

Table 3: Gap Analysis Detail

Base Case			
Development Costs		Annual Income & Expense	
Land	\$5,000,000	Income	\$1,171,000
Hard + Soft Costs	\$21,546,875	Expenses	\$(346,300)
Total Development Costs	\$26,546,875	Net Operating Income	\$824,700
Sources			
Equity	\$7,941,688		
Debt	\$8,564,654		
Total Sources	\$16,506,342		
Gap	\$(10,040,533)		

Facility Sensitivities			
New Markets Tax Credits Excluded			
Development Costs		Annual Income & Expense	
Land	\$5,000,000	Income	\$1,171,000
Hard + Soft Costs	\$21,546,875	Expenses	\$(346,300)
Total Development Costs	\$26,546,875	Net Operating Income	\$824,700
Sources			
Equity	\$3,654,688		
Debt	\$8,564,654		
Total Sources	\$12,219,342		
Gap	\$(14,327,533)		

Rehabilitated Building			
Development Costs		Annual Income & Expense	
Land	\$5,000,000	Income	\$1,171,000
Hard + Soft Costs	\$16,234,375	Expenses	\$(346,300)
Total Development Costs	\$21,234,375	Net Operating Income	\$824,700
Sources			
Equity	\$7,410,438		
Debt	\$8,564,654		
Total Sources	\$15,975,092		
Gap	\$(5,259,283)		

Subsidy Structure Sensitivities			
Free Land			
Development Costs		Annual Income & Expense	
Land	\$-	Income	\$1,171,000
Hard + Soft Costs	\$21,546,875	Expenses	\$(346,300)
Total Development Costs	\$21,546,875	Net Operating Income	\$824,700
Sources			
Equity	\$7,441,688		
Debt	\$8,564,654		
Total Sources	\$16,006,342		
Gap	\$(5,540,533)		

Subsidized Rents			
Development Costs		Annual Income & Expense	
Land	\$5,000,000	Income	\$1,851,000
Hard + Soft Costs	\$21,546,875	Expenses	\$(550,300)
Total Development Costs	\$26,546,875	Net Operating Income	\$1,300,700
Sources			
Equity	\$7,941,688		
Debt	\$13,507,997		
Total Sources	\$21,449,685		
Gap	\$(5,097,190)		

VI. Rent Sensitivities

Karp Resources provided BJH Advisors with a range of rents that one or more hypothetical food hub tenants may be able to pay. The rent assumptions, presented in Table 4 below, model one blended rate for 60,000 square feet of ground floor space and one blended rate for 25,000 square feet of second floor space,

irrespective of use (warehouse/production, commercial office, or retail). Holding all other baseline assumptions constant, BJH Advisors employed these rent projections in a sensitivity analysis that estimated the gap in development costs under each rent scenario. These values are shown in Table 4 below.

Table 4: Rent Sensitivity Analysis

Rent Sensitivity Analysis					
Ground Floor Rent (\$/SF)	\$15	\$13	\$11	\$9	\$7
Second Floor Rent (\$/SF)	\$12	\$10	\$8	\$6	\$4
Total Rental Income	\$1,200,000	\$1,030,000	\$860,000	\$690,000	\$520,000
Gap in Development Costs	\$(9.1M)	\$(10.3M)	\$(11.6M)	\$(12.8M)	\$(14.0M)

VII. Limitations

The analysis presented above estimates an approximate subsidy level necessary to construct a hypothetical food hub in New York City. The figures presented should be viewed as illustrative, high level estimates. The analysis is most valuable when each scenario is considered in comparison to the others.

This analysis considers only development and occupancy costs for a hypothetical food hub in an industrial area of an outer borough of New York City. The analysis does not consider other costs, such as marketing or logistics support or training costs, that may be borne by the City or State in order to establish a successful food hub operation. Moreover, the profits and losses of the food hub operator are not analyzed through this gap analysis presented.