

SHARED TASTES:

ECONOMIC DEVELOPMENT, LOCAL FOOD + KITCHEN INCUBATORS
IN NEW YORK CITY

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
ABSTRACT

In the past few decades, urban innovations for local food production have begun to gain traction. From rooftop honey production on the Upper West Side to urban farms at Brooklyn Grange, nut milks in Gowanus, and chocolatiers in Bushwick, the presence of small-scale food manufacturing is gaining visibility in the city. However, there is a mismatch in infrastructure for these small producers, as much of the city's industrial spaces and supply and distribution chains were built to accommodate conventional large scale production. As entrepreneurial food firms attempt to secure a foothold in the city's manufacturing economy, many are resorting to new cost-sharing measures. The formal sharing of commercial kitchens is one such measure.

New York City now has eight private and nonprofit kitchen incubators and two in development. The characteristics of these spaces and the goals of the firms they host vary significantly. Buoyed by a desire to drive economic growth, retain New York City's manufacturing jobs, and promote locally produced goods, city representatives and stakeholders have extolled the benefits of kitchen incubators.

This study explores the characteristics and goals of New York City's various models of incubator kitchens and how they contribute to (or undermine) economic development and the food economy. Using the lenses of local economic development and food systems planning, it also assesses the economic, health, sustainability, and equity implications of kitchen incubators in New York City. This thesis contributes to existing planning research and theory on the benefits and challenges of supporting early development of firms in a nascent sector in the city's economy and in creating more "local" food systems in urban environments.

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PART 1 // INTRODUCTION



New York City has always been a site of food production. From the legacy of brewing and distilling during the 19th century, to the mid-20th century proliferation of slaughterhouses in the Meatpacking District, food manufacturing businesses have comprised a crucial industry that serves to nourish and entertain the city's growing population. New York's food system, however, was significantly altered with the arrival of the automobile to urban centers. Mid-twentieth century phenomena in food commerce, such as large scale trucking operations; development of new technologies for packing, storing, and freezing food; and increased complexity of industry supply chains, were associated with broader trends of suburbanization and globalization.

Due to many of these phenomena, the city's existing food-related firms were able to access cheaper land and resources outside of the city, as well as scale up their production processes and engage in cross-boundary distribution that defines our conventional food system today. Newly established supermarket chains in urban centers became willing buyers of such goods. Smaller food manufacturing companies in New York and other urban centers often could not compete with mass produced and cheaper food items sold in supermarkets. Many went out of business, and others left the city to retain their competitive pricing advantage.

In the past few decades, however, urban innovations for local food production have begun to gain traction. From rooftop honey production on the Upper West Side to urban farms at Brooklyn Grange, nut milks in Gowanus, and chocolatiers in Bushwick, the presence of small-scale food manufacturing is increasingly gaining visibility in the city. However, there seems to be a mismatch in infrastructure to support these small producers, as much of the city's industrial spaces and supply and distribution chains were built to accommodate the conventional system of import substitution. As entrepreneurial food firms attempt to gain a foothold in the city's manufacturing economy, many are resorting to new cost-sharing measures, particularly the formal sharing of commercial kitchen space.

The creation of formal shared workspace is relatively new in the world of food manufacturing, and much of the rhetoric in favor of their development references the concept of "incubator" spaces popularized by the technology sector. Partly drawing upon the model of technology incubators, new private

and nonprofit shared kitchens have been established, some with public support. Although the characteristics of these spaces and the goals of the firms located within them vary significantly, such shared kitchens are perceived by many to fill a gap in affordable and appropriately sized workspace for small food manufacturers. Buoyed by a desire to drive economic growth, retain New York City's manufacturing jobs, and promote locally produced goods, city representatives and agencies, particularly the New York City Economic Development Corporation (henceforth referred to as EDC), have extolled the benefits of kitchen incubators. EDC has contributed to the establishment of two existing spaces, as well as awarded funding to others. City leaders have also spoken in favor of those developed by the private market.

Given these trends, this study seeks to explore the characteristics of New York City's various models of incubator kitchens and how they contribute to (or undermine) local economic development and the local food economy. This thesis contributes to existing planning research and theory on the benefits and challenges of supporting early development of firms in a nascent sector in the city's economy and in creating more "local" food systems in urban environments. Using the lenses of local economic development and food systems planning, this study will explore the economic, health, equity, and sustainability implications of food manufacturing incubators. It will also question prevailing economic development practices for bolstering small firms within this sector, and critically explore the goals and outcomes of different models of food incubators, which have not been previously assessed in planning literature.

PART 2 // BACKGROUND



Industry Snapshot: Manufacturing Trends in New York City

The story of manufacturing in New York City parallels that of many urban centers in the US. Employment in the city’s manufacturing sector began declining in the latter half of the 20th century, and has fallen by over 80% since its high of 1.1 million in 1947 (NYC Department of City Planning, 2002). This loss is attributable not just to the closing and relocation of factories, but also to the departure of Fortune 500 headquarters, firm mergers and acquisitions, an overall decline in city employment from the 1950s to the 1980s (Sassen, 2001). Changes in the characteristics of New York’s manufacturing sector have been especially striking in recent years. Between 1990 and 2010 alone, the city lost more than half of its manufacturing establishments (EDC, 2011).

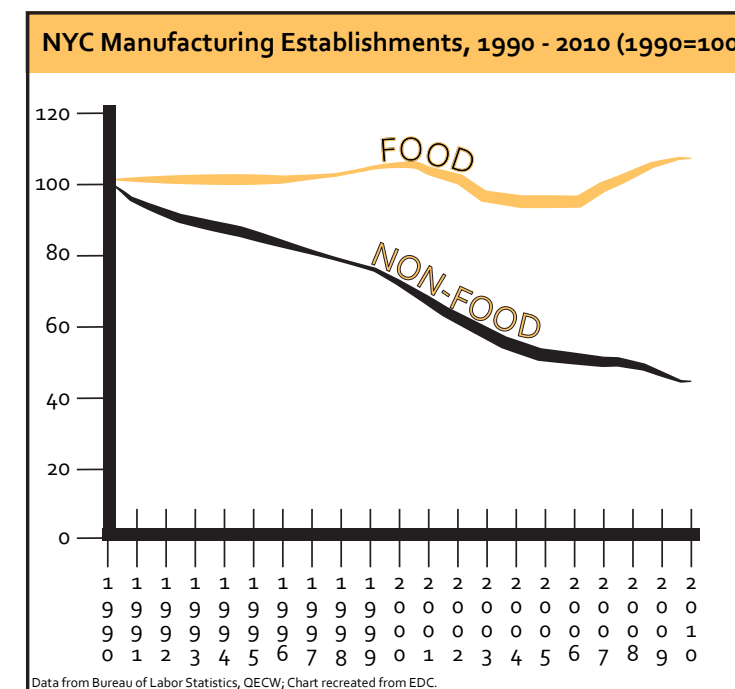
Despite the disappearance of much of the large-scale heavy manufacturing activity that once characterized New York City’s waterfront and industrial areas, not all sectors of manufacturing have sustained such large losses. Certain types of craft-oriented light manufacturing have been growing in visibility (Sassen, 2001). These sectors are often characterized by smaller firms, high-end specialty goods, and reliance on strong local markets and a niche reputation. Such “nimble, market-sensitive sectors” (Pooley, 1995) have experienced growth in employment and firms in the past two decades. As Mitchell Moss, former director of NYU’s Taub Urban Research Center, highlighted in an interview, “We’re faced with simultaneous decline and growth. Large-scale manufacturers – old fashioned production based on standardization and mass assembly – continue to leave town, while small producers start up all the time.” As a study by the Taub Center found, New York City “incubates” new companies at four times the regional average.

Sector Snapshot: The State of Food in the Manufacturing Economy

The state of the food manufacturing sector reflects industry trends. Food manufacturing seems to have retained competitiveness, comprising an increasing share of total manufacturing employment since 2001. While other New York City manufacturing sectors are experiencing loss of establishments and a rapid decline in employment, food manufacturing is cited as the most stable

sector in terms of those factors. In 2001, food manufacturing jobs comprised 11% of all New York City manufacturing employment. In 2011, this share rose to 19% of manufacturing employment. In addition, food manufacturing firms’ share of total establishments in the city rose from 11% to 17% over that same time period (New York State Bureau of Labor Statistics).

In terms of number of firms, the city gained 57 establishments in the food manufacturing sector from 1990 to 2010, a 6.1% increase. In addition, annual gains in the number of establishments more recently (from 2007 to 2012) led to an increase of 14.3% collectively (Bureau of Labor Statistics, 2013).¹ The following chart shows these numbers in relation to manufacturing overall.



Data from EDC’s 2011 Economic Snapshot seem to confirm that manufacturing industry trends toward smaller establishment size also exist in the food sector. On average, each food firm employed fewer people in 2010 than 20 years ago: 14 employees per establishment, down from 20 in 1990. EDC claims declining average employment and an increase in establishments may signal the exit of relatively larger employers and the proliferation of new and smaller businesses in the food economy (NYCEDC, 2011). The size of firms in this sector certainly appears to be small; of all the food manufacturers located within the city, 94.4% had less than 50 employees in 2012 (County

¹ While this data does not necessarily indicate a correlating increase in percentage of establishments and manufacturing within the sector, it does indicate that within manufacturing industry overall, the food sector comprises a larger share of establishments.

Business Patterns, 2012).

Food manufacturing firms, many of which are clustered around Northwest Brooklyn, Western Queens, and Upper Manhattan, had a combined annual revenue of \$5 billion in 2012. From 2007 to 2012, New York City's employment in the sector increased 5.6%, for a total of 15,199 jobs in NAICS code 311 at the end of 2012.

The city's gains also appear to be notable when compared to the rest of the state, which experienced a decline of 170 (13.3%) food manufacturing establishments between 1990 and 2010. On average, food manufacturers in the rest of New York State were larger, with each manufacturer employing about 31 people in 2010, down from 34 in 1990 (NYCEDC, 2011).

Growth in this sector also results in indirect employment in other sectors, such as transportation, wholesale, and business services. According to the New York Industrial Retention Network, the industry supports an average of an additional 14,600 jobs in other such sectors (New York Industrial Retention Network, 2007). Although it is unclear how many food manufacturing related jobs represent a transition from another comparable or more highly paid sector, it is clear that recent trends show employment growth and perhaps an increasing importance of the sector in New York's economy. This is certainly reflected in city policy and programs directed at the sector.

New York City Context: The Demand for Local Food

Perhaps unsurprisingly, New York's competitive advantage in manufacturing is often highlighted as its ability to innovate new products and concepts for highly specialized markets (Pratt Community Center). Subsectors that produce such items (often high value luxuries such as apparel and commercial art) have done well in the city (Rantisi, 2002). Food manufacturing is one such sector. This may be due to the cultural visibility and diversity of New York City's food economy, as well as a captive resident and tourist market that welcomes diversity in food products. The cultural cache of "local food" has also been perceptible in the past decade, with the arrival of New York City's Greenmarkets, privately operated food markets such as Smorgasburg, food festivals and programming, farm-to-table restaurants, community supported agriculture (CSAs), and a myriad of online resources that connect local pur-

² The equity implications of this phenomenon will be explored later in this study.

veyors of food to consumers throughout the city.

Public actors have increasingly brought attention to the potential of this food climate to create new manufacturing jobs for the city. However, the city's demand for specialty food products, and thus its ability to support light manufacturing food producers, may ironically be due in part to the displacement of traditional manufacturing by the finance, real estate, and information sectors, which now consist of over a million jobs. Employees in these sectors, comprising New York's "creative class," possess disposable income that allows them greater choice in purchasing items at higher price points than mass-produced and packaged food items imported from elsewhere (Florida, 2005). The goods produced by food manufacturers may thus be targeted at such a clientele.²

In addition, the nature of employment in the food manufacturing sector is not well characterized. In terms of salary, manufacturing jobs overall pay relatively well in comparison to the demographically similar retail sector in New York, with an average salary of \$49,000 compared to \$39,000 in retail services in 2009 (Pratt Community Center, 2009). In the specialty food sector, this is slightly higher, with an average salary of \$49,090 in New York in 2011 (Bureau of Labor Statistics). However, this raises important questions about the nature of employees in small-scale manufacturing establishments. It's possible that claims about economic development strategies creating net job growth for a city sometimes hide a shift in employment from one sector to another (Szirmai, 2005). In a niche industry such as food manufacturing, are entrepreneurial firms drawing employment from workers who were formerly employed in "creative class" sectors rather than filling a gap in manufacturing employment overall? In what ways is this shift both positive and negative for economic development and equitable job distribution?

Current Policies: Efforts That Support Food Manufacturing

As the specialty food market in New York City faces increased demand for locally produced items, many claim that the food manufacturing industry is well situated to accommodate local economic development³ for the city and its residents. Over the past few years, New York City has explicitly attempted to attract firms that engage in the processing and manufacturing of food items, encourage local food innovations such as urban farming, and streamline

³ A discussion of what encompasses local economic development will occur later in this study.

sourcing and distribution of produce and processed foods to capture benefits of this growth, including local economic development, sustainability, health, and equity.

Both public and private entities have participated in activities and programs to champion food manufacturing in the city, mostly related to the goal of local economic development. Support of small firms in the sector has been increasingly prioritized and discussed by key actors and stakeholders as important for economic growth. A rhetoric surrounding opportunity to create jobs, spur entrepreneurship, and nourish the growth of locally produced items has driven the city’s programs related to the industry. As previously mentioned, many of these efforts fall under the purview of EDC, which refers to itself as the “primary engine for economic development charged with leveraging the City’s assets to drive growth, create jobs and improve quality of life.”⁴ With the support of Mayor Bloomberg and City Council Speaker Christine Quinn (whose office released a 2010 report entitled “FoodWorks” that references food production), EDC has worked with public and private actors to undertake many programs and initiatives targeting the sector.

Such policy tends to fall under four major categories: education and networking, real estate and infrastructure, safety, and capital. Education and networking initiatives seek to train manufacturers on best practices in business and entrepreneurship; build up their familiarity with stakeholders in the industry as a whole; and provide knowledge about marketing, labor, and regulations. Certain initiatives solicit input from firms and private sector leaders to inform government policy, such as the Industrial Business Advisory Council. Real estate and infrastructure incentives provide funding and access to space and physical resources needed for firms to establish themselves and grow. Safety initiatives are primarily regulations that govern health and food handling by firms. Capital initiatives in the form of loans and grants serve as a means to supplement financing for key operational costs. Various policies, programs, and incentives exist at the city level, and some overlap in the aforementioned categories. Many initiatives have public partners at other scales of government, as well as nonprofit and private partners.

The tables on the next two pages list current city initiatives, public and private entities, and secondary goals of each initiative. While not all of these initiatives are targeted specifically at food manufacturers, they all deal with

⁴ EDC technically operates as a nonprofit or “quasi-governmental” organization, although its projects and programs are widely perceived to be in line with the priorities of Mayor Bloomberg’s administration.

industrial growth and development, and can be accessed by small-scale food manufacturers. Some of the initiatives are highly selective competitions, while others are noncompetitive applications, advisory services, or required licenses (such as the safety initiatives). Firms may take advantage of many combinations of these programs while in the development stages or if they attempt to scale up.

EDUCATION + NETWORKING

INITIATIVE	PUBLIC SECTOR ENTITIES	PRIVATE PARTNERS	OTHER GOALS
Food Manufacturers Business Exposition	City: Economic Development Corporation State: Business Development Corporation Federal: Small Business Administration	National Association for the Specialty Food Trade	
Summer Fancy Food Show Contest	City: Economic Development Corporation City: Office of Speaker of City Council	National Association for the Specialty Food Trade	
Industrial Growth Initiative Business Plan Competition	City: Economic Development Corporation	Next Street	Capital
Industrial Business Advisory Council	City: Economic Development Corporation City: Office of the Mayor		
Incentives Consultation Plan	City: Department of Small Business Services		
Entrepreneur At Large	City: Economic Development Corporation		

REAL ESTATE + INFRASTRUCTURE

INITIATIVE	PUBLIC SECTOR ENTITIES	PRIVATE PARTNERS	OTHER GOALS
Kitchen Incubators	Borough: Brooklyn Borough President Borough: Brooklyn Chamber of Commerce Borough: Queens EDC City: Economic Development Corporation City: Office of the Speaker of City Council	Mi Kitchen es su Kitchen Hot Bread Kitchen 3rd Ward	Capital Education
Industrial Business Zones	City: Office of the Mayor City: Dept of Small Business Services City: Dept of City Planning City: Dept of Buildings City: Dept of Finance City: Dept of Housing Preservation + Dev. City: Dept of Citywide Admin. Services City: Economic Development Corporation		Capital
Industrial Space Modernization RFP	City: Economic Development Corporation City: Office of Management and Budget City: City Council City: Dept of Environmental Protection		Capital
Commercial Expansion Program	City: New York City Department of Finance		Capital
Industrial Space RFPs	City: Economic Development Corporation		

SAFETY

INITIATIVE	PUBLIC SECTOR ENTITIES	PRIVATE PARTNERS	OTHER GOALS
Food Handlers Permits	City: Department of Health		Education
Licensing of Food Manufacturing Firms and Spaces	City: Department of Health State: Dept of Agriculture + Markets Federal: US Department of Agriculture Federal: US Food and Drug Administration		

CAPITAL

INITIATIVE	PUBLIC SECTOR ENTITIES	PRIVATE PARTNERS	OTHER GOALS
Small Business Loans	City: Department of Small Business Services Federal: Small Business Administration		Education
Food Manufacturers Growth Fund	City: Economic Development Corporation State: Business Development Corporation Federal: Small Business Administration	Goldman Sachs EWVIDCO	
New York Industrial Development Agency	City: Economic Development Corporation		

in partnership with a new retail market by Brooklyn Flea and a housing and community development plan for the neighborhood. In addition, EDC has referenced the potential for an incubator space in the Request for Proposals for the new Essex Street Market on the Lower East Side.

Private firms, academic institutions, and community organizations have begun operating food incubator spaces as well. In 2008, there were only three incubators in New York (Center for an Urban Future, 2008). Now, there are eight and a few more in development.⁶ A small food company called BAO Food and Drink opened an Organic Food Incubator in its own space Long Island City, and Hana Pastries runs a commercial kitchen and manufacturing facility in Sunset Park. The Women’s Health and Economic Development Corporation, a nonprofit based in the South Bronx, operates an incubator kitchen that provides workforce development training and connects minority and women entrepreneurs to flexible space. In addition, Kingsborough Community College has established an incubator and shared food production space that caters to the city’s budding student food entrepreneurs, and Columbia University and Union Seminary are exploring the development of a new space called Columbia-Union Kitchen. The eight existing incubators in New York, as well as two in development, are shown in the maps on the following page.

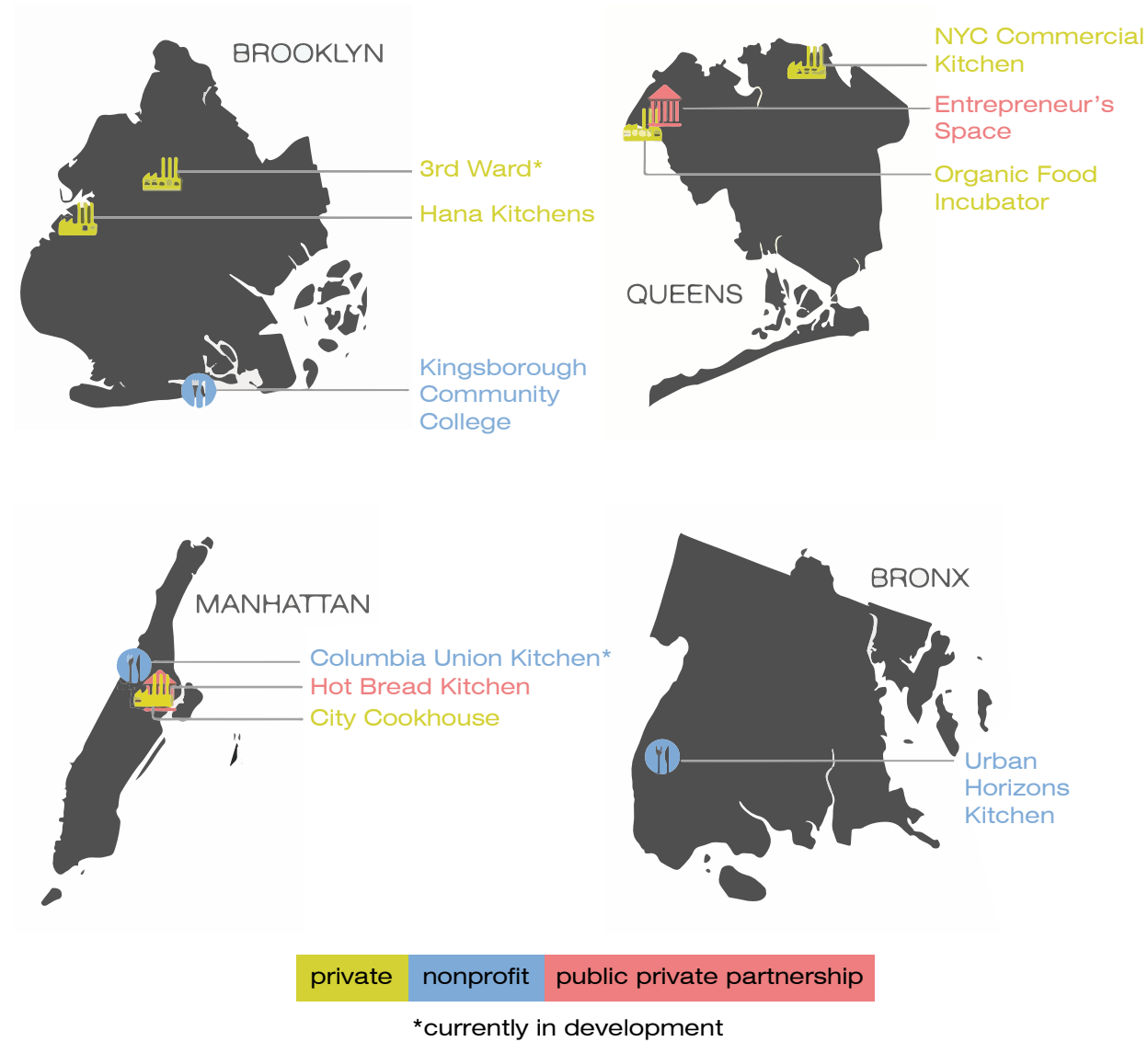
Kitchen Incubators: Existing Spaces in New York City

Of these many initiatives, this study explicitly focuses on the role of kitchen incubators.⁵ To spur the formation of new firms and the support of start-ups from the beginning of their life cycle, there has been a focus on appropriate space, which is perceived to be a key piece of the infrastructure puzzle for many start-up and newly arriving food manufacturers.

Currently, kitchen incubators in New York City are operated and funded by public, private, and nonprofit entities. As previously mentioned, EDC has devoted funding and resources to two previously existing incubators: Hot Bread Kitchen Incubates in East Harlem, and the Entrepreneur’s Space in Long Island City. EDC also recently partnered with the Brooklyn Borough President’s Office and the Brooklyn Chamber of Commerce to award \$1.5 million to a new “culinary incubator” by 3rd Ward, a for-profit entity that currently operates a crafting and multidisciplinary workspace in Bushwick. The new shared kitchen facility will open in Crown Heights at the end of 2013,

⁵ A kitchen incubator can be defined as a shared kitchen with support services. A more comprehensive definition will be provided later in this study.

⁶ The methodology for defining an incubator will be discussed at a later point.



PART 3 // LITERATURE



Thus far, there has been no research conducted on the characteristics of these incubators. In addition, their goals and priorities (beyond the basic rationale of economic development) remain unexplored, and there is little evaluation of how such spaces encompass economic growth, health, sustainability, and equity – all issues deemed as significant for urban economic development and food systems planning strategies.

Innovation + Competitive Advantage

Firms that produce specialized or high end products engage in a strategy referred to as differentiation in order to increase their competitive advantage. Differentiation, as defined by Michael Porter, involves the incorporation of elements that are unique and perceived as valuable by customers into a given product (Porter, 14). This differentiation can be based on many factors related to production of the good, or its distribution, marketing, and other factors. Firms who engage in this strategy are often rewarded with the ability to charge higher prices, depending on their ability to differentiate their product in a way that maintains its uniqueness. This is also related to the concept of focus, described by Porter as the selection of “a segment or group of segments” within an industry upon which to concentrate production efforts in order to produce a higher quality product, rather than focusing broadly on many segments (i.e. an ice cream company makes three flavors of ice cream well, as opposed to producing twenty flavors of ice cream, as well as milk shakes, sundaes, and popsicles) (Porter, 15).

Cities may take advantage of small-scale firm-level differentiation and specialization in focus when attempting to attract or retain certain industries. The diversity of needs and desires within an urban consumer market allows for increased opportunities for differentiation within a certain industry, and eventually the ability to export specialized products. This diversity gives certain industries with a high level of innovation (because they produce differentiated products) a competitive advantage within a city’s consumer market.

These strategies are often pursued by small firms and start-ups, which have the flexibility to experiment with inputs, and tend to concentrate limited resources on creating a small selection of items. Small firms also rely on differentiation and focus to create a brand that identifies their product as unique and worthy of premium prices. Thus, cities that encourage and retain such small or specialized firms are perceived to foster innovation and promote an industrial brand that contributes to their economy by capitalizing on diversity of demand and revenue gained from taxes and fees, as well as the ability to export specialized items. As the New York Industrial Retention Network states, “the diversity of New York stimulates new product development and creates a competitive advantage for the industry.” The Network estimates that

in 2007, a third of the local food manufacturing industry’s output was sold and consumed outside the City and abroad (New York Industrial Retention Network, 2007).

There are, of course, issues with such strategies for competitive advantage. Specialized firms may not be able to sustain differentiation as new firms enter the market, making this model difficult to scale up in an urban context in order to achieve meaningful local economic development (as traditionally quantified by employment and revenue growth). For example, Crumbs Bakery, which originally began at a small scale in New York, has lost over 90% of its highest stock value, which some attribute to an oversaturation within the gourmet cupcake market. Shifting consumer demand may also affect an industry, sector, or segment of focus overall. New competitors at a larger or broader scale may enter the market, and offer comparable items at lower prices, or prices of inputs to the final product may rise, therefore eroding demand based on increased premium costs. High value specialty items may have a market threshold in terms of demand, and also raise concerns of equity in consumption.

Thus, with unpredictable factors affecting the market share of various industries or firms, it is difficult to assert to what degree cities should put resources into attracting specialized and small-scale innovation focused industries. Will a proliferation of these firms achieve a non-competitive balance in terms of differentiation that allows the presence of many small firms to contribute significantly to economic growth? Will a particular start-up or small firm be able to capitalize on specific market demand in order to scale up and provide more jobs? Is attracting and retaining small firms focused on product innovation or specialized industries an effective strategy for local economic development? This study will examine the interplay of these questions in the context of kitchen incubators for food manufacturing.

Incubation

Despite their popularity as a tool for local economic development, the concept of an “incubator” is not well defined. Many scholars in business, planning, and technology have highlighted a lack of conceptual clarity about the definition of an incubator, and the fact that the term itself is used to describe

“institutions with completely different objectives” (Aernoudt, 2004).

In its most basic function, an incubator is an environment that supports small or start-up firms. It is typically in a shared locality and managed by an entity or organization that provides business support or informal sharing of knowledge. In *Incubator Best Practice: A Framework*, Anna Bergek and Charlotte Norman identify four components highlighted by scholarly studies of incubator spaces:

1. shared office space, which is rented under more or less favorable conditions to firms
2. a pool of shared support services to reduce overhead costs
3. professional business support or advice, or “coaching”
4. network provision, internal and/or external

(Bergek and Norman, 2008)

While these components may seem clear in theory, there are many practical factors regarding the operation of incubators that remain unclear. Most researchers seem to agree that these entities provide opportunities for firms in early phases of their existence, in order to bridge the gap between a well-developed idea and a scalable business model (Klofsten, 2005).⁷

However, there is a dearth of research on the larger goals of such spaces and the firms that they serve, as well as measures of performance or success beyond baseline quantitative outcomes such as job creation. In practice, the goals of incubators are often articulated according to local economic development principles that have been hotly debated: the ability of firms to “scale up,” typically measured in terms of survival rate, creation of jobs, and firm revenue (Wolman and Spitzley, 1996). These quantitative factors often ignore what some theorists offer as a more appropriate definition of local economic development: well-being that incorporates quality and equity of residents’ economic conditions. This highlights a concern often put forth in planning literature: that the theories of economic development are, in practice, often eclipsed by a narrative of “growth politics” based on the desire of cities to improve their market attractiveness (Petersen, 1981).

These attempts to attract growth may not necessarily be well-founded in the context of incubators. Candace Campbell and David Allen, while acknowledging other potential benefits, state that “it is clear that few of the ‘incubating’ firms create more than a handful of jobs,” (Campbell and Allen,

⁷ Much of the literature in this portion vaguely references “business incubators” and does not necessarily deal directly with the manufacturing industry or food.

⁶ The methodology for defining an incubator will be discussed at a later point.

1987) and few studies have definitively assessed the growth potential of firms in incubators in terms of jobs after they “graduate.” There also exists a dearth of studies on the displacement of one type of firm or job by another. If cities support incubators in a particular industry as a strategy for employment increases, it may be that this industry is drawing employment from people who already have jobs in other sectors, and thus not adding a net gain to the city’s employment.⁸ An additional concern about employment revolves around the demographic character of employees in growing sectors. While an increase in manufacturing jobs in craft-based industries might reflect growth in those sectors, it is difficult to ascertain who is benefiting from such employment, and whether an increase represents a resurgence of a similar type of role than that which was lost by urban manufacturing centers nationwide. A counter argument to these ideas is that by supporting a nascent sector, job multipliers will be created in different employment roles through growth of the sector over time, and through related support services.

These concepts highlight a key issue of incubation: there seems to be a disconnect in both theory and practice between the goals of various models of incubators and their measured outcomes for firms and for the regions in which they are based. What are the metrics for measuring success, and how is it measured in a meaningful way? In addition, the specific nature of business support services and networks remains unstudied, particularly in the food manufacturing industry.

Agglomeration

The argument in favor of incubation is implicitly an argument for agglomeration. By co-locating, firms seek to achieve economies of scale in production. The benefits of agglomeration for firms can be categorized into three groups: knowledge spillovers, input sharing, and labor market pooling (Rosenthal and Strange, 2003). Further research has refined these into thematic groups:

Urbanization economies: benefits derived from the agglomeration of population, namely common infrastructures (e.g. utilities or public transit), the availability and diversity of labor and market size.

Industrialization economies: benefits derived from the agglomeration of

⁸ Although a job may open up in the sending field, this might also be filled by someone who is already employed, representing an overall employment shift rather than net gains. The job at the sending firm might be filled by a new entrant to the city, thus not helping to decrease unemployment for existing populations.

industrial activities, such as being their respective suppliers or customers. This favors the emergence of industrial clusters.

Localization economies: benefits derived from the agglomeration of a set of activities near a specific facility, i.e. a transport terminal (logistics parks), a seat of government (lobbying, consulting, law) or a large university (technology parks) (Rodrigue, 2013).

Although agglomeration is also thought to produce negative externalities such as congestion and competition (Chatterjee, 2003), co-location of certain types of industry is often perceived to be beneficial for the city and public as a whole in addition to its advantages for firms. Efficient use of resources is the most commonly cited advantage; agglomeration economies may utilize the same energy and utility inputs, material resources (i.e. packaging and equipment) and sourcing networks (i.e. shipments requiring transportation), as well as manage outputs such as product distribution and waste collectively, thereby reducing their own costs and their impact on city infrastructure and ecology (Kolko, 2010). The study of the benefits and challenges of agglomeration in the food industry is sparse, and this lens has yet to be applied to kitchen incubators. These spaces inherently attempt to take advantage of economies of scale through co-location, but the benefits of agglomeration to firms and the public in terms of sourcing and distribution remain unexplored.

Localism + Food

In the past few decades, the concept of economic localism has captured the attention of urban policymakers, scholars, community advocates, and consumers. Grounded in the goals of local economic development and environmental sustainability, much of this attention has focused on examining and encouraging “locally-produced” products within urban environments. (Shrager, 2013). Proponents of this framework of economic localism often position their ideas as running counter to the notion of economic globalization (Tomas, 2006), in which there is free flow of goods across borders and little regulation that determines where industry locates or where production occurs.

There are certain industries in which the manifestation of economic localism has been particularly prevalent in terms of policy, consumer activity, and advocacy. Food manufacturing is certainly one of these industries. Due to

the time sensitive nature of elements of the food supply chain (i.e. freshness of ingredients) as well as public health concerns over product quality and sourcing, this industry lends itself naturally to interventions based in the framework of economic localism.

On the consumer side, the emergence of a so-called “local food movement” is both a result of and a continued cause for a growing interest in theories and policies that disentangle food systems from the perceived negative externalities of a conventional system based on globalization and import substitution. As Robert Feagan notes in “The Place of Food,” notions of place and the local are “re-emerging as urgent expressions of our contemporary geographic imagination.” Feagan builds upon the work of Pascual-de-Sans (2004), Harvey (1996), Dalby and MacKenzie (1997), Paasi (2002), and Shelley et al. (2003) to argue that structural changes associated with globalization and wider-scale commoditization of industry spurred an increasing awareness of what it means to be local. In other words, the drawing of geographic boundaries of the local was in part a community reaction to emerging concerns about the negative impacts of globalization and economic change (Agnew).

The notion of geographic identity is certainly embedded within New York City’s policy and rhetoric surrounding industry and food. Food policy based in the concept of economic localism is coupled with the city’s desire to retain and attract light manufacturing industries that are suitable to its competitive advantage, brand of innovation, and diverse markets. The branding of specialty items manufactured in the city as “Made in NYC,” (by the Pratt Community Center) is just one of many examples of the way in which both firms and the city overall attempt to increase their economic returns and cultural cache through branding of the “local.” Kitchen incubators play a part in this process.

Food Systems Planning

The goods produced by kitchen incubators serve to meet demand for certain types of local food in urban markets. As a small scale model, they have the opportunity to connect to nascent theories of food systems planning. The American Planning Association highlights local food systems planning as a burgeoning field with major implications for the US communities. The goals

of community and local food systems planning, it asserts, are to:

- Preserve** existing and support new opportunities for local and regional urban and rural agriculture;
- Promote** sustainable agriculture and food production practices;
- Support** local and regional food value chains and related infrastructure involved in the processing, packaging, and distribution of food;
- Facilitate** community food security, or equitable physical and economic access to safe, nutritious, culturally appropriate, and sustainably grown food at all times across a community, especially among vulnerable populations;
- Support** and promote good nutrition and health, and;
- Facilitate** the reduction of solid food-related waste and develop a reuse, recovery, recycling, and disposal system for food waste and related packaging

Three major focus areas emerge from the APA's framework for food systems planning: economic development, public health, and environmental sustainability. In addition, the theme of equity plays a critical part in this framework. Food systems planners often highlight the potential of local and regional solutions and innovations to address and solve the challenges of conventional food systems in these focus areas. Some of this context overlaps with the goals of the Bloomberg administration's PlaNYC, which references sustainable food systems and the environmental impacts of food production. The plan goes so far as to state that "improving the distribution and disposal of food within New York City and increasing access to healthy food will not only benefit the environment, it can also have positive public health and economic impacts." The plan claims that the city is "developing a multi-faceted strategy to increase access to affordable and healthy foods and reduce environmental and climate impacts of food production, distribution, consumption, and disposal."

It is apparent through the goals highlighted by the APA and PlaNYC that much of local food systems planning revolves around agriculture and fresh produce. Manufactured food items produced for distribution, on the other hand, utilize both fresh and processed ingredients as inputs. Kitchen incu-

bators in New York often host firms that produce such items, and officially qualify as food manufacturers.

Although the rationale for kitchen incubators is often contextualized within the framework of local economic growth, debates around food production inherently touch upon the issues of health, sustainability, and equity. This is especially significant, as over the past decade, sales of packaged foods around the world have jumped by 92%, to \$2.2 trillion. Kitchen incubators, as small scale models of sourcing, production, and distribution, have an opportunity to test, implement, and align with the goals of food systems planning.

PART 4 // RESEARCH



This study is a comprehensive analysis of all of the existing kitchen incubator spaces that partake in food manufacturing (the production of goods for retail distribution) within New York City. Incubators are defined by the criteria set forth by Bergek and Norman, as identified in the literature review. Publicly available information about shared commercial kitchens throughout New York City was analyzed to find the presence of these characteristics. Although the facilities in question vary significantly in certain key ways, the goal of this study is to highlight the opportunities and challenges faced by incubator facilities and the firms located within them, as well as to categorize the spaces based on their stated purposes and differing characteristics.

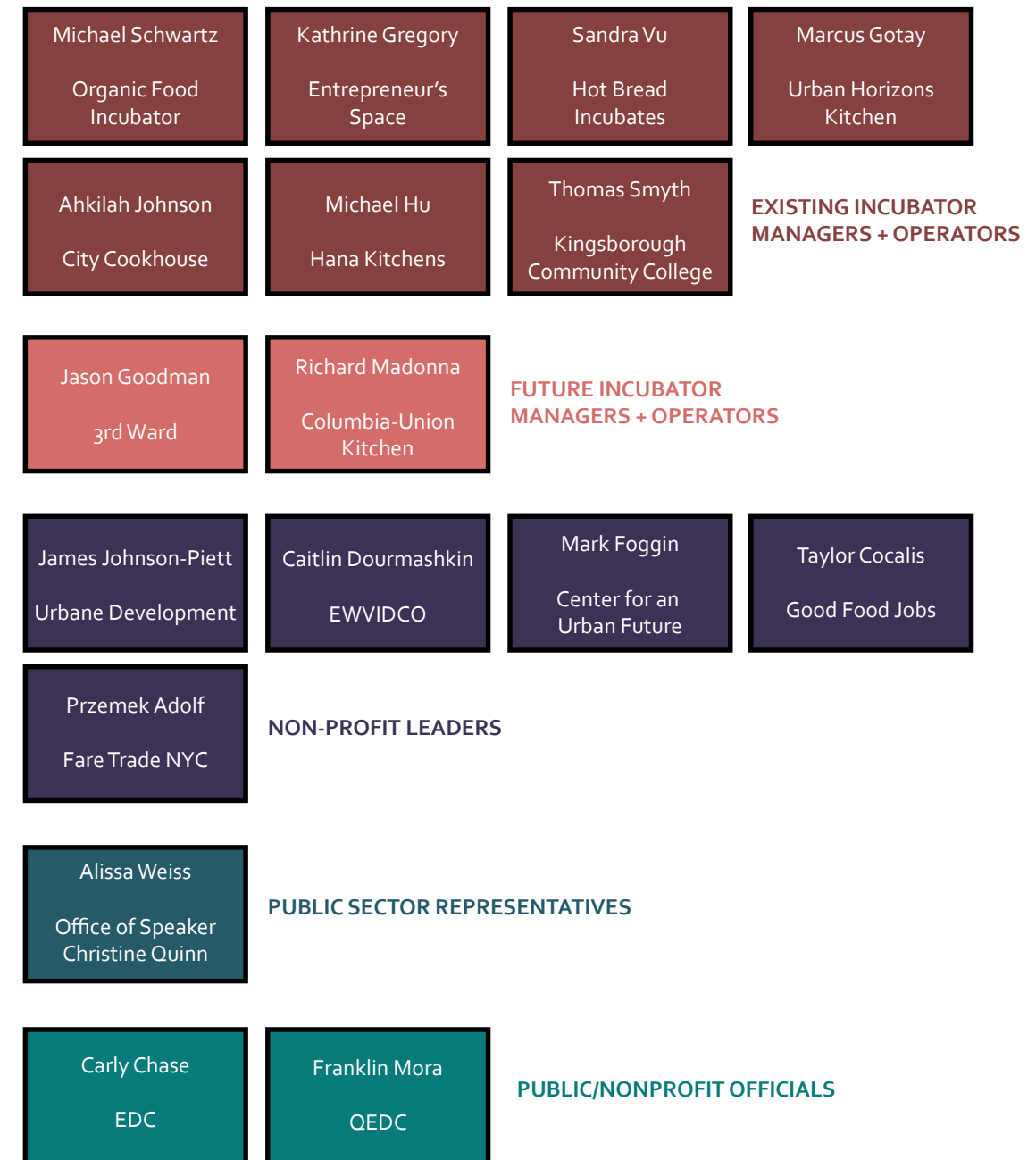
In order to assess the features of the incubators, interviews and site visits were arranged with the manager or operator of each of the facilities¹⁰, as well as the two in development. Data was gathered on leasing and management structure, characteristics of firms, amenities, services, and goals. This information was gathered through document review, research of publically available data, and qualitative interviews with operators of facilities in order to characterize the types of incubators present in New York City and how they operate. No previous comprehensive study of these spaces has been conducted in such a manner.

Anonymous interviews were also conducted with ten firms located within the aforementioned facilities in order to understand their challenges, business goals, employment, product sourcing, distribution, and perceptions of their facility. The goal of this process was to analyze the relationship of firms to the spaces in which they are located, as well as to gain an understanding of their business plans and growth trajectories. Qualitative methods such as interviews were chosen as the prime method of analysis in order to avert the issues of inconsistent understanding of quantitative categories, difficulty of obtaining relevant or statistically significant data, and the potential of quantitative data to be skewed based on the goals of sources.

Information was also gathered at a private event for food inspectors hosted by the federal Food and Drug Administration and at a training for food manufacturers at the East Williamsburg Valley Industrial Development Corporation, as well as at public events held by the Columbia Food Lab, the Queens Economic Development Corporation, and the Brooklyn Historical

¹⁰ NYC Commercial Kitchen is excluded from this analysis, as a contact could not be reached.

Society. Finally, nonprofit and government actors involved in policy and funding of shared kitchen spaces were interviewed to understand the purposes of public sector action on incubator spaces, the extent of government support, and the role of various agencies and organizations in collaborating to promote growth in the food manufacturing industry. Non-anonymous interviewees include:



This design seeks to address the relationship of food manufacturing spaces to local economic development in a layered and multi-faceted manner. The growing presence of food manufacturing facilities as spaces for local and entrepreneurial firms has led the city to pursue ideas for new facilities and support of existing incubators and the firms within them. By analyzing the characteristics of incubators and firms more specifically, and the opportunities and challenges faced by incubators, this study aims to clarify the types of kitchen incubators in existence, and to understand whether these spaces contribute to the goals of local economic development. This study also goes on to explore how kitchen incubators, especially through the agglomeration economies they create, might partake in the theories of local food systems planning, which include, health, equity, and sustainability in addition to economic development. The study asks how the public sector can promote plans and policies for incubators and the food manufacturing sector overall that more explicitly address the key opportunities and challenges of economic development and local food systems for the future of our cities.

PART 5 // FINDINGS



Existing NYC Kitchen Incubators: The Basics

Based on the components outlined by Bergek and Norman,¹¹ there are eight kitchen incubators currently in New York City. These incubators all provide shared kitchen spaces, rented under conditions favorable to firms. In addition to this basic tenet, all of the spaces analyzed fulfill the additional components highlighted by Bergek and Norman: a pool of shared support services to reduce overhead costs; professional business support or advice, or “coaching”; and network provision, internal and/or external. Each space accomplishes these components to different extents and with varying degrees of success. The table below shows the basic characteristics of the seven spaces:

	SPACE		FIRMS		FUNDING		MANAGEMENT	
	Location	Square Ft	# of Firms	Average Employees	Public Funding	Source	Type	Entity
HBK	East Harlem	4,600	32	1 to 2	yes	EDC	PPP	Hot Bread Kitchen
KCC	Manhattan Beach	5,000	10	2 to 4	yes	DOE	Nonprofit	KBCC MAC
OFI	Long Island City	12,000	30	2 to 4	no	--	Private	Organic Food Incubator
CC	East Harlem	1,000	36	1 to 2	no	--	Private	City Cookhouse
TES	Long Island City	12,500	150	2 to 4	yes	EDC	PPP	EDC, QEDC Mi Kitchen es su Kitchen
UHK	South Bronx	4,000	57	1 to 2	no	--	Private	WHEDCo
HK	Sunset Park	12,000	20	1 to 2	no	--	Private	Hana Kitchens, Inc.

HBK ----- Hot Bread Incubates
KCC ----- Kingsborough Community College
OFI ----- Organic Food Incubator
CC ----- City Cookhouse

TES ----- The Entrepreneur's Space
UHK ----- Urban Horizons Kitchen
HK ----- Hana Kitchens

How They Function: Characterizing Current Kitchen Incubators

Purpose

New York’s kitchen incubators, consistent with incubators overall, are typically utilized at an early stage in the development of a firm (Pratt Community Center).¹² Because firms in New York producing food items for retail distribution must be based out of a licensed commercial kitchen, incubators offer new firms a space to grow from their home kitchens as an alternative to expensive permanent industrial real estate or informal shared space in restaurants. “For home cooks, at some point they have to make it legitimate - that’s when they come seek us out,” says Michael Hu of Hana Kitchens.

Small firms in New York cite a need for a space of between 250 and 1,000 square feet, and many of the entrepreneurs interviewed claimed that the smallest spaces they could find were a minimum of 4,000 square feet. In addition, incubators attempt to provide affordable and flexible workspaces for new firms that are testing products and running small batch production, and thus do not need a full-time production space. This seems to be a key use of incubator space in New York.

These issues are underscored by a general lack of capital available to new food entrepreneurs in order to acquire their own facilities and to pay for licensing, insurance, energy, and equipment. For a food manufacturer producing an item with average inputs in this city, it ranges between \$10,000 to \$20,000 in start up capital for non-real estate costs. In addition to space, infrastructure, and capital, many entrepreneurs claim that the nature and competition embedded within New York’s food industry requires navigating a complex network of regulations, packaging, and distribution in order to create a profitable enterprise. Thus, amenities and programs offered by incubators reduce costs and increase knowledge significantly by providing coaching on such processes.

Timing + Pricing

Food manufacturers in New York’s incubators typically rent space in 6-8 hour shifts, and staff or managers of the incubators keep track of scheduling and coordinate daily shifts. Due to the sharing of space, equipment, and utilities, rent for these shifts is often well under market value for a permanent comparable space. Most of the incubators in existence operate 24 hours a day

¹¹ See literature review for more thorough description.

¹² This is often accompanied by other goals, which will be discussed later. It is also complicated by unclear goal setting in certain self-defined “incubators.”

in order to accommodate entrepreneurs who are employed full time elsewhere. Shifts cost up to \$250 each, but many incubators price based on different terms. Hot Bread Kitchen, for example, has a special subsidized “Life Program” for underprivileged individuals, which charges on a sliding scale based on financial need. Urban Horizons Kitchen also offers subsidize space rental for community uses. A table of pricing is below.

		
HOT BREAD INCUBATES	\$500 annual membership, sliding hourly rate	4 and 6 hour shifts
KINGSBOROUGH COMMUNITY COLLEGE	sliding scale based on need	flexible shifts
ORGANIC FOOD INCUBATOR	\$220 flat fee	8 hour shift
CITY COOKHOUSE	\$250 flat fee	5 hour shift
ENTREPRENEUR’S SPACE	\$235 flat fee	8 hour shift
URBAN HORIZONS KITCHEN	\$17-20 per hour	5 and 10 hour shifts
HANA KITCHENS	\$120 flat fee	8 hour shift

Location, Ownership, + Management

As evident from the maps, many of the incubators are located away from high density commercial and residential centers, where price per square foot of real estate is significantly cheaper and more industrial spaces exist. Hana Kitchens (in Sunset Park), Entrepreneur’s Kitchen (Long Island City), Organic Food Incubator (Long Island City), are all in Industrial Business Zones. Five of the eight spaces are owned by the incubator operator or management, and five are rented by the operating entity and then subleased to tenants.

In terms of management, three of the spaces (Hot Bread Incubates¹³, Kingsborough Community College, and Urban Horizons Kitchen) are structured as non-profits. Organic Food Incubator, City Cookhouse, Hana Kitch-

¹³ With funding from EDC.

ens, and NYC Commercial Kitchen are private for-profit entities, and the Entrepreneur’s Space is operated by a consultant (Katherine Gregory of Mi Kitchen es su Kitchen), in collaboration with the Economic Development Corporation and the Queens Economic Development Corporation.

Licensing

Due to the variety of different types of firms in kitchen incubators, licensing is a complicated endeavor. Michael Hu, the President of Hana Kitchens, recently participated in an event for food inspectors at the office of the Food and Drug Administration in Jamaica, Queens, in order to clarify (and attempt to simplify) these processes. Licenses for food production in New York City primarily consider method of distribution in determining which agency is the appropriate licensor. All establishments that engage in food production or processing must have one employee on site who has a food handler’s certificate, verified by the New York City Department of Health. In addition, any establishment that engages in retail sales or distribution of food items must obtain a 20-C license from the New York State Department of Agriculture and Markets. A 20-C license supersedes city regulations, and thus most firms in kitchen incubators (besides caterers and those who produce for direct to restaurant sales) do not need to obtain licenses from the city Department of Health.

Licensing for the incubator itself is less straightforward. Urban Horizons Kitchen, for example, is licensed as a commissary by the New York City Department of Health. Hana Kitchens, Organic Food Incubator, and Hot Bread Incubates are regulated under the aforementioned Article 20-C by the State Department of Agriculture and Markets, as each entity manufactures its own items in addition to hosting other food manufacturing establishments. It is apparent from conversations with operators and from the general sense of confusion on behalf of inspectors at the FDA event that there is no standard procedure for licensing of such incubator spaces. “This is one of the biggest things we have to figure out, and hopefully we’ll be able to work with the government to do so,” says Michael Hu.

Equipment + Types of Food Items

Each of the eight existing incubators explicitly serves the food manu-

facturing industry, with firms listed under NAICS code 311 (Food Manufacturing). Most firms located in these spaces produce products packaged and made for distribution (although caterers and direct-to-consumer baked items are also present). These are often specialty items at relatively high price points.

Unlike their technology counterparts, New York's food incubators offer large-scale, expensive industrial equipment that is difficult for individuals to purchase on their own. In all existing cases, kitchens were built out for another purpose, well before the incubator as an entity arrived, and thus have varying equipment that influence which firms choose to locate there.¹⁴ Hot Bread Kitchen and Hana Pastries, for example, took over former bakery production spaces, and as a result host many firms producing bread or dessert items. Decisions about current equipment purchases often influence the characteristics of firms as well. Organic Food Incubator invested in bottling and labeling machines, which has attracted many beverage and sauce producers.

In addition to a large shared kitchen, many of the incubators in New York City have partitioned or segmented semi-private space for firms that desire privacy, engage in complicated cooking procedures, or require separate facilities in which to produce products that are gluten-free or USDA certified. For example, the Entrepreneur's Space has a separate gluten-free kitchen occupied by 10 firms, while Hana Kitchens offers one USDA certified room for dairy production (which currently hosts an ice cream producer). Hana Kitchens is also exploring the possibility of having one room USDA certified for meat production, as management is in talks with a sausage producer.¹⁵ The Organic Food Incubator, which hosts many firms undertaking processes for certified, organic, or allergen-free products, has 11 semi-private workspaces, each with its own equipment, for specific firms that have full-time access to those spaces.

Profile of Firms + Entrepreneurs

The context of food entrepreneurship seems to vary from that of the technology industry. Although many of the firms located in current incubators are one-person establishments formed by entrepreneurs, these individuals often pursue the food sector as a second career due to a "passion or desire to share their special product with the world," according to Katherine Gregory, a consultant who has helped to form five incubators in the past, and current-

¹⁴ The new 3rd Ward culinary incubator in Crown Heights will be the first incubator to be fully built out especially for this purpose.

¹⁵ This requires complicated licensing procedures, which will be discussed later.

ly operates the Entrepreneur's Space. "Food is not like technology – it takes a while to develop that awareness of who you are and your product to build up sales revenue." Given the high initial capital costs of funding a start-up, many of the firms located in the Entrepreneur's Space and other incubators are former lawyers or business professionals (i.e. the "creative class," or are pursuing a food business as a part-time venture. This is true of the firms located at Hana Kitchens, Organic Food Incubator, NYC Commercial Kitchen, and City Cookhouse as well. Entrepreneurs who develop business plans often seek to maintain control of the production process and stay in the kitchen, as opposed to many technology start-ups whose primary goal is to sell to a larger technology firm (although some food entrepreneurs eventually turn over their recipes to an entity called a "co-packer" for production).

At Hot Bread Incubates, Urban Horizons Kitchen, and Kingsborough Community College, the profile of entrepreneurs is slightly different. Hot Bread Kitchen prioritizes applications of minorities, women, and underprivileged individuals from the East Harlem community. Its sliding scale rents and "Life Program" help to subsidize costs for this population. Likewise, Urban Horizons Kitchen, which is operated by the Women's Health and Economic Development Corporation, a nonprofit, prides itself on its service to the Bronx community and its role in expanding health and local economic development in the neighborhood. Urban Horizons offers the lowest rental rates, and its mission is social and educational as well as economic. It has the most diverse profile of entrepreneurs in terms of socioeconomic status.

Packaging

At most of New York City's kitchen incubators, food manufacturers must package their own products for retail sale. Only two of the spaces, the Organic Food Incubator and Hana Kitchens, offer packaging equipment and materials, primarily related to bottling, labeling, wrapping of baked goods, and boxing for shipment. The Organic Food Incubator also engages in co-packing (the production and packaging of other firms' goods, conducted by OFI staff). "I never thought I'd be a co-packer," says Michael Schwartz of OFI. "But there's a lot of demand for that sort of thing."

Some firms, upon testing and perfecting their product recipes, choose to send production to an external co-packer, which typically has large scale

machinery and can conduct many different production runs of different items simultaneously. Co-packers also package and sometimes distribute goods. Currently, there are no stand-alone co-packers in New York City, although large food companies such as ACME Fish engage in co-packing at their facilities.

Utilities

All of the existing incubators in New York offer electricity, waste removal services, recycling, water, and heat as part of the cost of their shifts. Organic Food Incubator (OFI) is the only incubator that requires its tenants to compost. In doing so, it was able to reduce its sanitation costs. The service is provided by Action Carting, which also conducts OFI’s standard waste removal procedures. Other incubators claim that it is difficult to educate firms on the benefits and logistics of composting. Although they produce a lot of organic waste, none of New York City’s kitchen incubator facilities have formal byproduct programs or projects to repurpose or reuse food waste. A few managers cite that this sometimes happens informally. At OFI, for example, a baking-oriented firm purchases oranges for its products, and recently began providing the peels free-of-charge to a cocktail bitters producer, who uses their extract. These relationships also exist at other incubators, but are primarily anecdotal and seem uncommon, according to managers and firms interviewed.

Services + Amenities

In addition to traditional cost-sharing measures, New York kitchen incubators are experimenting with mechanisms to reduce overhead costs for entrepreneurs and food start-ups. This includes providing shared raw materials and inputs, co-packing and distribution services, business and legal training, marketing and branding assistance, shared waste disposal, and many other amenities and services that bring down each firm’s individual costs. “When you come in here, your strength should be production,” says Michael Hu. “You might not be good at marketing and distribution – that comes with volume and with our assistance.”

A table of amenities offered by each incubator is on the next page.

INCUBATOR	BUSINESS SERVICES		PRODUCTION			MARKETING AND DISTRIBUTION				EMPLOYMENT		INGREDIENT USE				
	Business Consulting	Legal Assistance	Recipe/Process Assistance	Product Testing	Storage	Packaging	Co-Packing	Marketing and Branding	Relationships with Distribut.	Access to Markets	Networking	Employment Connections	Job Training	Local Sourcing	Ingredient Sharing	Reuse of Byproducts
HBK	Yes	Yes			Yes											
KCC				Yes									Yes		Yes	
OFI			Yes		Yes	Yes	Yes	Yes	Yes					Yes	Yes	Yes
CC				Yes												
TES	Yes			Yes	Yes				Yes	Yes	Yes	Yes		Yes		
UHK					Yes				Yes	Yes	Yes	Yes	Yes			
HK			Yes		Yes	Yes	Yes			Yes						

HBK ----- Hot Bread Incubates	TES ----- The Entrepreneur’s Space
KCC ----- Kingsborough Community College	UHK ----- Urban Horizons Kitchen
OFI ----- Organic Food Incubator	HK ----- Hana Kitchens
CC ----- City Cookhouse	

Although business consulting and legal assistance are often cited as key elements of incubation, only two of New York’s spaces (Hot Bread Incubates and The Entrepreneur’s Space – both EDC supported) offer formal programs in these. Most spaces offer storage capacity, but only private spaces provide recipe and process assistance services. Marketing and distribution services are relatively weak and informal overall, and incubators with a social mission¹⁷ seem to provide more support for employment. In terms of ingredient use, few New York City incubators take advantage of agglomeration of firms in order to provide coordinated resource sharing and reuse of byproducts. The ones that do tend to have an articulated environmental motivation.

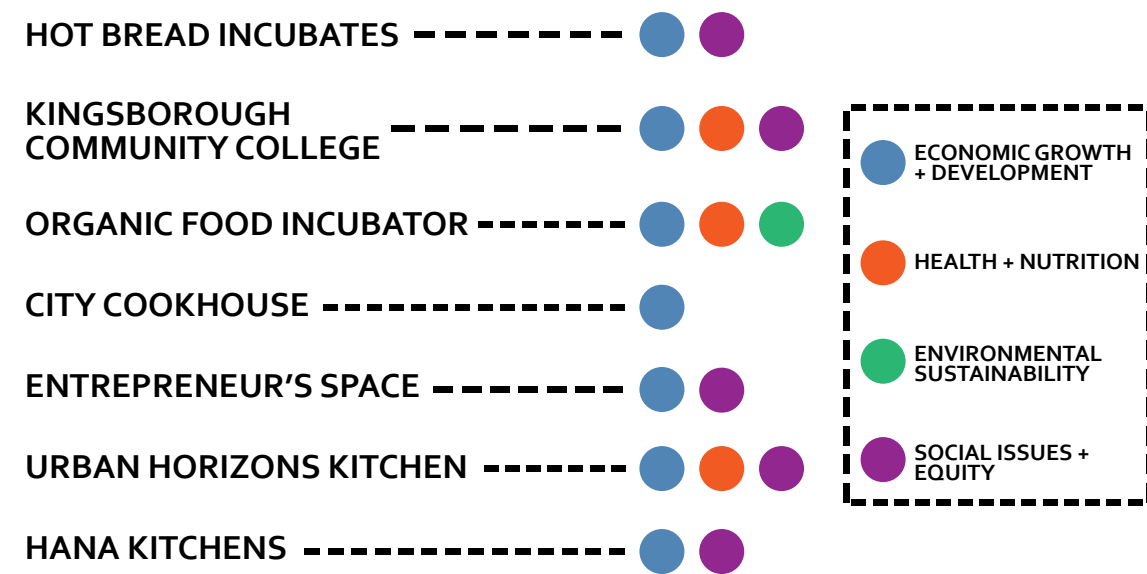
Benefits + Challenges of Current Kitchen Incubators

Goals of New York’s Kitchen Incubators

Given their varying characteristics, New York City’s kitchen incubators clearly serve a variety of purposes in addition to their most commonly referenced goal of economic development. This is reflected in literature about the ambiguous and difficult to quantify goals of incubation. While business

¹⁷ See the next section for more an assessment of goals and mission of each incubator.

growth and economic development remain the primary driving forces behind the concept of incubation in the food manufacturing sector, operators, managers, firms, and city officials have also cited goals pertaining to social and equity issues, health and community development, and environmental sustainability. Because these incubators are focused on food production and seek to take advantage of the benefits of co-location for economies of scale, such goals correlate to the theories of agglomeration and food systems planning. Below is a table of self-reported goals from the managers and operators of each incubator space.



This table of goals clearly shows the motivation of economic development in the activity of kitchen incubators. Many of New York's spaces also seek to address social and equity-oriented goals, such as access to capital and other resources for entrepreneurship by traditionally underprivileged populations, a connection to employment from the local community, and equity of pricing models used by their firms. Two of the incubators claim that such spaces can take advantage of agglomeration to serve as responsible stewards of a new ecological consciousness within manufacturing and food production, and three highlight the importance of New York City's entrepreneurial food producers to focus on the health, quality, and freshness of the items they are producing.

Given these various overlapping motivations, how do current incubator

spaces fulfill the goals of economic growth and development? In addition, since these are sites of local food production within New York City, how can incubators connect to the context of food systems planning that arise from their own missions and from agglomeration theory that addresses those issues?

Economic Growth + Development

In interviews, every operator of an incubator cited traditional goals of economic growth (firm growth and success, increased city employment, revenue, and city tax benefits) as a crucial element of the rationale for such spaces. According to Katherine Gregory of The Entrepreneur's Space, "our sole mission is to allow firms to grow." Entrepreneurship creates tax revenues and substantial increase in employment," she adds.

Sandra Vu of Hot Bread Incubates says that the incubator defines success by the ability of firms "to grow their businesses," and that "the program's success metrics are sales growth and kitchen utilization." Marcus Gotay of Urban Horizons Kitchen says, "Incubators like ours promote jobs and promote the entrepreneurial spirit that we have here in New York. Even if it's a small percentage of jobs, it's still something – it gives people the opportunity to be their own boss." Michael Schwartz of OFI confirms this rationale. "What's my value added? I'm creating jobs. This facility was employing zero people before. Now there are 70 jobs that wouldn't have existed otherwise." These assertions seem to reflect the goals stated by EDC in supporting kitchen incubators. Carly Chase of EDC's Center for Economic Transformation states that kitchen incubators "create jobs, encourage diversification of the economy and entrepreneurship, and support tourism and economic development in the city." Alissa Weiss of Christine Quinn's office highlighted another motive of such spaces: "We don't want potential food firms to leave the city. That's why the Speaker is so passionate about incubators." These rationales seem to be embedded within the framework of "economic growth" as a proxy for development.

Such statements are complicated, however, by the fact that few kitchen incubators keep track of employment levels, number of jobs created, and where firms go when they leave a facility. Thus, while EDC and incubator management consistently refer to the goals of kitchen incubators in terms of

their potential to contribute to quantifiable economic development outcomes, these outcomes are not collected or measured by quantitative data or well-defined metrics.¹⁸ For example, when asked about how many people are employed at each site, operators often stated that it was too difficult to keep track. They were able to provide data about the number of firms in their incubator, but only Hot Bread Kitchen was able to definitively state how many firms had “graduated” and moved on to their own spaces or to co-packers (three, in total). Organic Food Incubator, on the other hand, has only had one firm leave its space in its two years in existence, in order to secure its own facility. There is thus no entity keeping track of firm revenue, employment, and number of establishments (the three most often cited practical measures of economic growth and development) in each space.

In addition, little data exists on the previous employment of new entrepreneurs entering incubator spaces, and thus no method to determine whether jobs are being created for formerly unemployed individuals, or for those who are switching careers. According to Caitlin Dourmashkin of the East Williamsburg Valley Industrial Development Corporation (which works with many food manufacturers and has just been named a technical assistance partner for EDC) “The entrepreneurs don’t need these jobs – they are employable people. The question is whether their efforts actually result in increased employment for others.” This highlights another contradiction between economic development theory and the city’s growth rhetoric surrounding manufacturing employment: new craft-based and very small-scale manufacturing sectors such as food may be employing members of the “creative class” rather than replacing traditional blue-collar manufacturing jobs for those previously in the industry who are having difficulty finding employment. While the nature of this new employment is not necessarily negative for the city, it should also not be confused as a “resurgence of manufacturing” for the city.

James Johnson-Piatt of Urbane Development is skeptical of the incubator as a model for local economic development. Incubators “might allow you to grow, but don’t give you the ability to become anything but a small-scale producer,” he asserts. Part of the issue with incubation, he believes, is that there demand for certain types of specialty items is finite, and the products in vogue will inevitably change. He also cites the difficulty of the city to scale up small-scale operations incrementally and connect them to step out spaces in a

¹⁸ I acknowledge that kitchen incubators are relatively new, so quantitative data may not be telling at this point (many argue that it takes time for firms to scale up in meaningful ways). However, this does not mean that data should go uncollected, particularly if desired outcomes for such spaces are easily quantifiable.

manner that is consistent with real demand for their products.

Dourmashkin also questions the role of kitchen incubators in economic development. “Businesses stay in New York because they’ve invested in space and employees,” she claims. Although she believes that the entrepreneurial nature of food start-ups “creates opportunity for others,” through their potential to scale up and hire, “incubator kitchens are really about real estate, and that’s still not being solved.” She also states that “incubators only really work when there’s a path out of them,” and believes that the city is not doing enough to encourage firms to stay and “create long-term growth” in the industry. She would like to see incubators that “encourage firms to invest in employment” and that there needs to be an articulated policy for firms to graduate out and connect to future, more permanent industrial spaces. Meanwhile, many operators of kitchen incubators encourage firms to keep employment small and focus on niche production. One incubator even offers part-time production support from its own staff to assist firms who do not want to deal with workers’ compensation, and the operator of another says that firms are encouraged to hire fewer employees to cut costs and retain logistical flexibility.

Dourmashkin seems to underscore this when she says, “incubators aren’t the answer for the economic needs of the city. Employment increases are the key to local economic development, and incubators are not good at this.” However, she does not believe that kitchen incubators are of zero value. “Different models serve different functions. What are we trying to accomplish with these spaces for the city?” She raises the question of whether these spaces can contribute to tourist culture, serve as sites for employment training and apprenticeships, and better connect to the narrative of food justice. She, and others (including interviewees from Speaker Quinn’s office, EDC, QEDC, and Fare Trade NYC), believe that these elements of food production are highly beneficial to the city overall.

Despite the lack of evidence that kitchen incubators allow firms to “grow” or “scale up” in a way that contributes to quantifiable increases in employment and revenue, eventual growth may, in part, contribute to qualitative goals of local economic development: job quality and social equity. Taylor Coalis of Good Food Jobs, a nonprofit that attempts to connect people of all backgrounds to employment in food-related industries, says that New York’s food manufacturing jobs, particularly those in small scale establishments, are

positive for the city. “Small firms that produce food, once they reach a certain scale, hire people of all sorts, and typically provide living wages, benefits, and job security in a way that makes them far superior to what you’re seeing in the retail sector. They also teach a skill that is transferable, contribute to practical training of employees, and are often times ‘walk-to-work’ jobs for neighborhoods near industrial centers.” Michael Hu also addresses job quality. “A lot of people out there are unhappy with their jobs. A lot of people have other jobs and do this because it’s their dream. In turn, they should pay people what they deserve. This space is not about the number of jobs but the quality.”

However, the question of scale remains. Dourmashkin says she would like to see a study on successful start-up food firms that highlight “the point at which they become an economic development driver.” This, in turn, is further complicated by a lack of understanding of the goals of firms that choose to locate in incubator spaces. How many entrepreneurs desire to grow to the point that they hire employees and establish their own spaces, and how many are simply producing food as a hobby or for supplemental income? This is not well understood by EDC or the operators of existing spaces, and application procedures do not take into account such goals.

Health + Nutrition

In addition to quantifiable outcomes of economic growth, certain stakeholders emphasize broader goals of economic development and food systems planning to which these spaces contribute.¹⁹ Hana Kitchens, run by Michael Hu, who is a chef by training, places emphasis on the growing local food movement and food quality issues that incubators can play a part in. “People are starting to eat differently – they want to know where their food is coming from,” he says. “There is more education about what they can and should eat. When you taste a good dish, it reminds you of family, tradition, and culture. It’s more than just food. That’s why the ingredients in our cubbies are extraordinary.” He sees incubators like his as crucial in coaching non-culinary professionals in food production and service. “Our role is to show them that volume can open up a lot of opportunities without committing food service sins.”

Hana Kitchens, along with Urban Horizons Kitchen, Kingsborough Community College, and Organic Food Incubator, cite the potential of food produced locally to contribute to the health and well-being of the city’s com-

¹⁹ In the absence of quantitative metrics, these actually might prove to be a more significant and compelling argument for incubators’ contribution to local economic development.

munities. “Incubators are promoting a stronger and healthier city,” says Michael Schwartz of OFI. However, this may not be true in practice. Many incubators produce specialty packaged and processed food items such as cupcakes, breads, candy, chocolate, sweet beverages, desserts, and fried snacks.²⁰ Besides Organic Food Incubator, not one of the incubators claimed to take into account health implications of the food products made by entrepreneurs when considering their applications. While Hana Kitchens, Kingsborough Community College, and Urban Horizons Kitchen coach their firms on the use of fresh ingredients and healthy cooking techniques, this happens informally and can be attributed primarily to the fact that those three spaces are managed by former chefs. Existing incubators effectively have no systematic mechanisms to ensure that the food their firms are producing is healthy and not excessively high in calories, fat content, sodium, processed ingredients, and additives. As previously stated, they also do not necessarily encourage firms to source fresh local ingredients.

Although many of the foods manufactured in incubators are intended as snack items, the fact that they are “locally produced” is often used as a branding or marketing technique to imply freshness and distinction from conventional processed foods. In this case, however, the items being produced by New York City incubators do not contribute to the nutritional well-being of communities in which they are located or to which they distribute goods.²¹

Environmental Sustainability

As previously mentioned, the explicit connection of New York City’s kitchen incubators to environmental sustainability is weak. Organic Food Incubator is the only space to articulate this as one of its goals, and although it undertakes composting and encourages informal repurposing of waste, this may have been undertaken at least in part due to its marketing cache and cost-savings. This does not imply that OFI participates in greenwashing, but that its environmental “mission” may be partly driven by the weight carried by the brands of “organic,” “local,” and “fair-trade.” Director Michael Schwartz confirms this by explaining his rationale for beginning to compost: “It’s great – it saves me money, looks good, and is what’s right. Win-win-win.” OFI’s composting, therefore, can serve as an example to other spaces. With a simple switch to a carting company that separates organic waste for compost, its com-

²⁰ Although there are also firms that produce granola, nut sorbet, kombucha, and other “healthy” items.

²¹ This is, clearly, a distinction from a commonly articulated rationale for supporting “locally produced” agricultural and dairy items.

mercial solid waste output was decreased by half.

Incubators thus are not formally taking advantage of the environmental or resource-sharing benefits of agglomeration beyond space or equipment sharing. Firms located in kitchen incubators typically buy ingredients, make connections to markets, and conduct their own distribution individually. Many firms buy from the same sources (Costco, Restaurant Depot, farmers' markets), and distribute to similar venues (grocery stores such as Whole Foods, Fresh Direct, and Fairway, private retail markets such as Smorgasburg, ethnic markets, specialty stores such as Dean and DeLuca, Garden of Eden, Williams Sonoma, and local food cooperatives).²² Although market operators often connect firms to potential retailers and EDC provides support for buyers through networking opportunities and events, the actual shipping or delivery of products is left individually to each firm. "They do it themselves," says Katherine Gregory. "A lot of them have vans." This may in turn be adding congestion to the city and by repeating routes that have the potential to be consolidated. If, as many of the operators assert, firms are so different that they are not competing with each other, then why are joint procurement and distribution programs being pursued? Incubator managers cite the logistical difficulties and disparate interests of firms as reasons for not coordinating sourcing and distribution. Marcus Gotay of Urban Horizons Kitchen says, "These are the divas. They have their own way of doing things."

Katherine Gregory, however, believes that kitchen incubators are uniquely positioned to further take advantage of economies of scale beyond physical space and equipment sharing. This includes coordinating purchasing. She says she would eventually like to begin a cooperative buying program at The Entrepreneur's Space, as well as to better connect the entrepreneurs at her location to greenmarkets, regional farmers, and local suppliers. The Plant, an urban farm and food incubator in Chicago, goes even further in its goals of environmental sustainability by attempting to re-use organic waste as energy and establish a net-zero facility that uses one manufacturer's output as an input for another's. For example, spent grain from brewing is used to fire an oven from baking, and anaerobic digesters convert food waste into methane that partially powers the facility. Other actors in New York also believe this is possible – interviewees at the Center for an Urban Future and Fare Trade NYC, upon being asked, stated that this may be a next step for small firms to fully benefit

²² These sources of ingredient procurement in and of themselves highlight a contradiction in scale. In trying to scale up their own production of "local" products, manufacturers often buy non-local products made by large manufacturers and distributed through supermarket chains in order to keep their input costs at a minimum.

from co-location and the positive economic and environmental potential of agglomeration.

Social Issues + Equity

Unlike the goals of health and sustainability, social equity is cited as a driving goal of many of New York City's incubators. As previously stated, Hot Bread Incubates, Urban Horizons Kitchen, and Kingsborough Community College have sliding scale pricing that target community members and underprivileged populations as potential entrepreneurs. However, Hot Bread Kitchen is the only space with business services that explicitly support and address the challenges faced by low-income and immigrant communities in creating a start-up food manufacturing firm. For instance, these populations are generally not well connected to financing for start-up capital required to create the foundation of a food production firm. While the joint EDC and Goldman Sachs Food Manufacturers Fund attempts to address the issue of capital financing, the barrier to entry is still quite high for firms without initial sources of funding or proven revenue and sales capability. James Johnson-Piett highlights the importance of the demographic divide as it pertains to funding for such entrepreneurial endeavors: "They are essentially looking to cherry pick, and Latinos and particularly Africa-Americans are already at a huge disadvantage. If these programs are going to fund a diverse range of entities, they need to be framed differently and focus on how to capture the potential of those groups, many of whom are cooking this stuff in their homes anyway."

Support for kitchen incubators and their connection to local food systems is further complicated by the fact that even in spaces like Hot Bread Incubates, manufacturers are producing \$5 cupcakes and \$7 bottles of juice. Although these price points likely reflect the specialty nature of such food items and the difficulty of achieving economies of scale that allow them to lower prices, there remains a concern among many about whether these spaces should be awarded public funding if their output is unaffordable to the majority of New York's population. "How many \$9 bottles of pickles can reasonably be on the market, and who's even going to buy that?" says Johnson-Piett.

Overall Strengths + Weaknesses of Existing Spaces

The table on the next three pages highlights the strengths and weaknesses of each incubator space in light of the overall goals of economic growth and development, health and nutrition, environmental sustainability, and social issues and equity. It is clear through this analysis that most of the focus of kitchen incubators (consistent with their goals that lead to their creation) pertains to economic growth and development. However, many of the spaces, as discussed above, seem to be weak at measuring and achieving outcomes that lead to long-term economic development. In particular, most of the incubators do not track firm or employment data, have few “graduates” and little connection to step-out spaces or viable real estate that allows firms to grow, and have unstructured or informal business services programs.

A few of the spaces (Hot Bread Kitchen and Kingsborough Community College, in particular), are nonprofits with strong social missions, and have more strengths associated with social issues and equity. This manifests in flexible pricing, connections to local community groups and nonprofits, and employment training and educational components to their services. Private kitchen incubators on the other hand tend to have less flexible pricing, more additional costs, and less transparency about their processes, leading to financial and social barriers to entry by traditionally underprivileged populations.

Health and environmental sustainability, for many of the existing kitchen incubators, comprise a marginal focus. However, the fact that even incubators that highlight environmental issues and nutrition as a crucial goals in their business models do not take advantage of agglomeration benefits such as shared sourcing and distribution, or attempt to encourage the production of fresh and nutritious food items, illustrates the lack of connection of this food-related economic development model to the larger context of food systems planning. By refining goals of economic development, health, sustainability, and social equity and better connecting them, there is an opportunity to strengthen the role of kitchen incubators as economic development drivers, and also to create a new model of a food incubator that supports appropriate and sustainable local food production in New York City.

Incubator	Strengths				Weaknesses			
	Economic Growth and Development	Health and Nutrition	Environmental Sustainability	Social Issues and Equity	Economic Development	Health and Nutrition	Environmental Sustainability	Social Issues and Equity
Hot Bread Incubates	local hiring from the community	emphasis on fresh ingredients	compact and energy efficient kitchen	local hiring from the community	few "graduates"	performance metrics based on sales growth & kitchen utilization	no coordination of distribution or sourcing	performance metrics based on sales growth & kitchen utilization
	formal programs for business services			attention to equity in pricing scale	no tracking of firm or employment data	many high-calorie and baked items	performance metrics based primarily on sales growth and kitchen utilization	products are expensive
	visibility of incubator brand			prioritizes underprivileged populations	long term market viability of specialized products		no ingredient sharing or reuse	
	formal networking opportunities			connection to community partners	no pipeline out of incubator space			
	interest in connecting firms to step out spaces			interest in community development				
	focus on comprehensive business training, including retail							
Entrepreneur's Space	high employment numbers compared to other spaces		interest in cooperative buying program	diverse profile of firms and entrepreneurs	no formal business services	success based on "growing firms" - no formal metrics	little local sourcing of ingredients	little local sourcing of ingredients
	highly organized management		attempts to encourage ingredient sharing & reuse	focus on community and knowledge sharing	no tracking of firm or employment data	many high-calorie baked & fried items	no coordination of distribution or sourcing	success based on "growing firms" - no formal metrics
	networking opportunities for firms		management relationships with farmers and markets	management relationships with farmers and markets	success based on "growing firms" - no formal metrics		success based on "growing firms" - no formal metrics	products are expensive
	extensive business services support				no pipeline out of incubator space			
	formal job training program for employees				little local sourcing of ingredients			
	interest in cooperative buying program							

Incubator	Strengths				Weaknesses			
	Economic Growth and Development	Health and Nutrition	Environmental Sustainability	Social Issues and Equity	Economic Growth and Development	Health and Nutrition	Environmental Sustainability	Social Issues and Equity
Organic Food Incubator	management involved in conversations with city officials regarding industrial policy	provision of space for gluten-free and organic items	provision of space for gluten-free and organic items	interest in local sourcing	no "graduates"	success based solely on financial performance of firms	individual distribution by firms	expensive space compared to other incubators
	specialized equipment based on product demand		composting and recycling program	involved in fair trade efforts	no tracking of firm data	many high calorie juice items	success based solely on financial performance of firms	extra costs for many amenities
	management investment in priority equipment purchases		interest in increased sustainability measures	interest in nonprofit partnerships	long term market viability of specialized products		no ingredient sharing or reuse	lack of diversity among entrepreneurs
	business services classes		interest in local sourcing		no pipeline out of incubator space			products are expensive
	interest in local sourcing		involved in fair trade efforts		encouragement of small scale employment			success based solely on financial performance of firms
Kingsborough Community College	opportunity for student work and internships	interest in health and community development	utilizes existing university resources and waste services	opportunity for student work and internships	informal space rental and management processes		no ingredient sharing or reuse	
	training of culinary and food service professionals	emphasis on fresh ingredients		training of culinary and food service professionals	no tracking of firm or employment data		no coordination of distribution or sourcing	
				flexible pricing reflects barriers to entry				
				educational focus				

Incubator	Strengths				Weaknesses			
	Economic Growth and Development	Health and Nutrition	Environmental Sustainability	Social Issues and Equity	Economic Growth and Development	Health and Nutrition	Environmental Sustainability	Social Issues and Equity
Urban Horizons Kitchen	networking opportunities for firms	emphasis on fresh ingredients		local hiring from the community	no tracking of firm or employment data		little local sourcing of ingredients	little local sourcing of ingredients
	varied equipment	emphasis on healthy products			no pipeline out of incubator space		no coordination of distribution or sourcing	
	support and coaching from a culinary professional				little connection to step out spaces			
City Cookhouse	formal business services			local hiring from the community	no tracking of firm or employment data	success measured by returning customers	no coordination of distribution or sourcing	little transparency about kitchen processes
	private spaces for firms with larger production lines			emphasis on lowering product pricing	no formal business services		success measured by returning customers	success measured by returning customers
					no pipeline out of incubator space		no ingredient sharing or reuse	extra costs for many amenities
					success measured by returning customers			
Hana Kitchens	attention to detail in production development	provision of space for gluten-free and organic items	provision of space for gluten-free and organic items	small deposit required from firms	no tracking of firm or employment data		little local sourcing of ingredients	little local sourcing of ingredients
	support and coaching from a culinary professional	emphasis on fresh ingredients		focus on job quality and enjoyment	no formal business services		no ingredient sharing or reuse	extra costs for many amenities
	emphasis on growing firms and moving them to their own spaces						no coordination of distribution or sourcing	
	low rental prices							
	focus on job quality and enjoyment							

PART 6 // RECOMMENDATIONS



Kitchen incubators, as sites of entrepreneurial innovation and agglomeration, have the ability to serve a niche and high-end market, but can they also serve as a model of sustainable, equitable, and nutrition-oriented sites of food production? Given their varied goals and levels of success, we can learn from New York’s current incubator spaces and the manner in which they operate. The city currently supports two facilities. In addition, EDC has recently awarded funding to 3rd Ward’s incubator in Crown Heights and mentioned a potential food incubator in the RFP for the new Essex Street Market. There is general enthusiasm for supporting the food manufacturing sector overall. Given this context, the following recommendations may aid in supporting current spaces and ensuring that new ones are not only in line with goals of economic development, but also connect to progressive principles in food systems planning.

Overall Recommendations

Increase Coordination among Public Actors

The Economic Development Corporation, the Office of Long Term Planning and Sustainability, and the office of City Council Speaker Christine Quinn all set priorities and partake in activities designed to support the food manufacturing sector. Since the goals of these actors are aligned, they could establish a task force or committee on food production. Alternatively, EDC already collaborates with City Hall to convene meetings of its Industrial Business Advisory Council.²³ A subgroup that focuses on industrial food policy and its connection to PlaNYC would help to coordinate various city goals and priorities regarding food production. Such coordination would make for more efficient use of public resources to support goals of boosting New York City’s industrial economy and local food system.

Create Metrics for Success

As previously discussed, there exist many goals for kitchen incubators. Desired outcomes, metrics, or deliverables, even for projects funded and supported by the Economic Development Corporation, are not well defined. In order to realistically assess the performance of such spaces and define priorities for future incubators in development, EDC along with the aforementioned

²³ Michael Schwartz of Organic Food Incubator currently sits on the council.

task force should establish clear metrics for success, based on the goals that they have articulated informally and through the RFP process that leads to provision of funding. The managers and operators of other incubator spaces, particularly the nonprofits, should seek to undertake a similar process. Establishing clarity in purpose may help incubators assess their strengths and weaknesses, as well as access additional funding.

More importantly, given the many different goals of firms locating in these spaces, incubators should seek to analyze the goals and profiles of various types of firms, and select firms that will help to achieve their desired goals. For example, if one goal of incubation is to spur employment growth by hosting firms that seek to grow, expand, and hire additional employees, applications from professionals with expansion oriented business plans would be prioritized over those of culinary hobbyists. As of now, there is no distinction between these two types of firms. Incubators may choose to host a variety of firms that achieve different goals, but in this case, operators should work with entrepreneurs and firm owners during the application process and through formal business services training to define and identify firm goals that connect to their own priorities. Even private incubators that are primarily profit-driven support the growth of the firms in their spaces, and many want to streamline logistics and distribution in a way that will allow them to be more sustainable.

Track Firms + Employment

Existing kitchen incubators, including those supported by EDC, keep records of the number of firms located within their facilities, as well as the basic characteristics and rent collected of each firm. They do not, however, collect or report data on the number of employees, revenue growth, where firms go when they leave incubator spaces, types of goods produced, and other qualitative data related to the operations and production models of firms. Particularly for economic development goals, EDC should work with incubators to establish a database of this information. This would prove useful to the city in determining the impact of such spaces on growth of the food manufacturing sector. If EDC continues to put resources into supporting the sector, it will be crucial to collect such information in a centralized location. A better understanding and categorization of firm types according to their goals may result from this process.

Economic Growth + Development

Attract a Co-Packing Facility

Not all firms that grow beyond start-up stage pursue industrial spaces of their own once they outgrow shared spaces. Many, as previously stated, choose to have their production undertaken by a co-packing facility. New York City does not currently have a stand-alone co-packing facility, and thus, much of this type of production takes place in large warehouses in upstate New York, New Jersey, and Pennsylvania. EDC and other actors, to keep production of specialty food items within the city limits (in order, for example, to capture tax revenues or decrease distribution distances), should work with elected officials to explore the option of attracting a standalone co-packing facility to the city. City Council Speaker Christine Quinn, Councilmember Steven Levin, and Brooklyn Borough President Marty Markowitz have all expressed interest in internalizing co-packing operations.

Connect Firms to Step-Out Spaces

A key issue highlighted through this analysis is that food manufacturing firms are unable to find affordable and appropriate industrial space not only at the early stages of their development, but also should they choose to grow. Thus, incubators do not solve the issue of a shortage of private industrial space for establishments that are scaling up or hiring more employees after their initial business models are successful.

As evident through previously discussed public sector policies, EDC and the Mayor's Office have prioritized the growth of industry and are in support of industrial development in key sectors, of which food is one. Food manufacturing firms have located in city owned and funded spaces such as the Brooklyn Navy Yard²⁴, Industry City²⁵, Brooklyn Army Terminal²⁶, and the former Pfizer Building (owned by Acumen Capital Partners, which was the first awardee of EDC's Industrial Space Modernization RFP. The Pfizer Building, in particular, is home to so many food-related firms that Michael F. Rochford, the Executive Director of neighborhood development group St. Nick's Alliance, says, "what Acumen is doing is functioning like an incubator. In the long term, it will start to bring jobs back into that building." Alissa Weiss of Speaker Quinn's office says that space such as that in the Pfizer

²⁴ Kings County Distillery, Sweet and Low, and In the Raw

²⁵ Blue Marble Ice Cream, Colson Patisserie, Industry City Distillery, Tumbador and Nunu Chocolates

²⁶ Jaques Torres Chocolates

Building (which is being built out to accommodate smaller firms)²⁷ functions as a "step-out" or next step space once firms are no longer in their initial development stages or are ready to leave incubators.

EDC should create a directory of appropriate step out spaces and work with managers and operators of incubators to connect firms that are ready to grow with appropriately sized and moderately priced real estate. This would help to achieve goals of growth in the food manufacturing sector by establishing a "path out" of incubator spaces that encourages food manufacturing establishments to stay in New York City, rather than taking their operations to jurisdictions where space may be cheaper or easier to find.

Connect Technology + Food

EDC currently supports specialized incubators in a few different industries in addition to food. One such industry is technology. The city currently supports at least seven such spaces, which cater to entrepreneurs working on a range of technologies and new media, particularly application, website, and mobile services development.

A recent event at the Columbia-Union Kitchen (a new kitchen incubator in development through a partnership between Columbia University and Union Theological Seminary) attracted many members of Columbia University's Business School and its Food Lab, who are interested in the use of mobile applications and online platforms to support food-related firms. New mobile applications featuring "local" or "trendy" food items, information about firms' supply chains, and food industry news are released daily. In addition, many business owners are turning to mobile technology as a means of increasing operational efficiency.

Given this context, EDC and operators should strengthen connections between food and technology incubators, or attract tech firms with a topical focus on the food industry to technology incubation spaces. The Entrepreneur's Space also offers offices in which relevant tech firms could be based. Networking events between entrepreneurs in these two sectors could also result in richer opportunities for collaboration and growth in both industries.

²⁷ McClure's Pickles, Brooklyn Soda Works, Steve's Ice Cream, Madecasse Chocolates, Kombucha Brooklyn, People's Pops, and others.

Health + Nutrition

Co-Locate Kitchen Incubators with Fresh Food Production

Although the primary focus of most kitchen incubators that engage in specialty food production is not necessarily to produce healthy and nutritious food, there is an opportunity through future spaces to partially incorporate the use of fresher ingredients. This can be done in a manner that can touch upon both health and local economic development (albeit not necessarily to solve current health concerns). Many bakers and beverage makers in incubators, for example, utilize canned fruits and imported and processed juices from concentrate to produce their items. This represents a missed opportunity for New York City food producers to source their produce locally.

With the increasingly rich presence of urban and rooftop agriculture within the city limits, EDC and future operators should site kitchen incubators in proximity to community gardens and farms. This would allow food producers to take advantage of fresh, local produce. It could also reduce environmental impacts of transporting fruit and vegetable ingredients and support the local economic activity created by urban agriculture.

Incubators should also enforce more stringent selection of firms based on the items they produce, as well as discourage unhealthy processing and use of fatty or sugary ingredients. Michael Hu of Hana Kitchens often incorporates quality control and ingredient freshness into his coaching services. Trainings and seminars can be provided, and incubators can be used as a site to test new and healthy alternatives to traditional snack foods. The Entrepreneur's Space and Organic Food Incubator, for example, already attract producers of snack-oriented chick peas, granola, nuts, as well as dairy and fat free alternatives to ice cream.

Environmental Sustainability

Engage in Local Sourcing, Ingredient Reuse, + Composting

Relationships with regional suppliers and farms beyond urban agriculture may also help strengthen the local economy by supporting small producers who source and employ people locally. Future incubators can test out a model by which a certain percentage of ingredients are sourced from local

or regional markets. The new Hunts Point local food market, announced by Speaker Christine Quinn, as well as new distribution hubs funded by Governor Andrew Cuomo throughout New York state may serve as natural sources, and incubators can establish a joint or cooperative buying program from such hubs, as well as from New York City Greenmarkets, to reduce redundancies in shipping and transportation from suppliers. Joint ingredient purchase programs created by incubators or mandated by EDC for future spaces would also consolidate shipments from larger ingredient suppliers.

A deliberate selection of firms that could share ingredients and use each other's byproducts (such as The Plant in Chicago) would reduce organic waste, a priority identified by Mayor Bloomberg and the Department of Sanitation through composting (another practical measure that incubators can undertake to cut costs, as previously mentioned). 30% of New York City's residential and institutional waste currently comes from organic items suitable for recycling. Food waste recycling can divert some of this waste from landfills, while using organic matter for composting and thus return to the food system. Organic waste can also be converted into energy that helps to power manufacturing and facility operations off the grid. The Plant uses anaerobic digesters funded by the City of Chicago for such processes.

Create a Distribution Hub

EDC should work with the aforementioned taskforce to establish a common distribution facility for local products. This would serve to expand access to products created in incubators, and potentially reduce price points if manufacturers were able to focus more on production and less on distribution. This could be accomplished through a relationship between incubators and the Hunts Point local market, which might allow aggregation of products from a variety of firms within each incubator.

A separate distribution facility may also be conceptualized, following the model of Local Food Hub in Charlottesville, Virginia. This operation is run by a nonprofit organization that connects local producers to large scale retail, institutional food providers, restaurants, and direct to consumers. It also provides educational programs, pop-up markets, and workshops on localism and ecological issues. Such a program could be undertaken by one of the many nonprofit organizations focused on food policy and security, and could also in-

corporate local and regional agriculture and food access concerns. Alternatively, a group focused on manufacturing policy and local production, such as the “Made in NYC” initiative, might seek to coordinate distribution of items from different sectors produced within the city limits. This could be accomplished in a physical space or through an online platform such as New York Mouth or Good Eggs, both of which aggregate and sell New York City products.

Social Issues + Equity

Establish a Community Food Incubator

A few existing incubators explicitly incorporate social justice goals into their application processes and seek diverse entrepreneurs that reflect the broad demographics of the city. Many, however, do not prioritize the social role of a kitchen incubator. With the new 3rd Ward culinary incubator still in conceptual stages and the potential for other future kitchens, a new community hub model may be imagined. EDC or a private operator can partner with a non-profit or a BID to develop an incubator in a neighborhood with traditional disinvestment, in order to produce revenue that is funneled back into the community. Urban Horizons Kitchen, located in the South Bronx, partly undertakes such a model by utilizing surpluses from its kitchen operation to fund the activities of WHEDco, its host organization.²⁸ A purpose-driven kitchen incubator with a strong social mission may be able to serve as a testing ground for hyper-local production. Such a model may be able to spread the risk of providing funding and resources to entrepreneurs who would otherwise not be able to access even a traditional kitchen incubator.

Undertake Jobs + Skills Training

Kingsborough Community College, Hot Bread Kitchen, and Urban Horizons Kitchen currently provide informal job training for members of the local community, students, and people with “barriers to entry” for employment (such as formerly incarcerated individuals). Given that job quality is a strength of New York’s food manufacturing sector, particularly with small-scale firms of the sort located in incubators, there is an opportunity to formalize such programs. Incubator management can develop partnerships with job training programs and nonprofits that connect the unemployed with openings, such as

Good Food Jobs. As previously highlighted, many positions in the food manufacturing sector teach long-term practical skills, discipline, and processes that are transferable to larger firms and other manufacturing and service sectors.

²⁸ WHEDco uses profit from its kitchen incubator to develop affordable housing and create economic opportunities for South Bronx residents.

PART 7 // CONCLUSION



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With a great deal of buzz about the potential role of the food manufacturing sector in contributing to New York City's economic growth and development, there exists an opportunity to further assess current practices in kitchen incubators, and incorporate progressive ideas into future spaces. While pursuing the goals of economic growth and development, city efforts should be mindful of the fact that sites of manufacturing and production are part of New York's food ecosystem, as referenced in Christine Quinn's *FoodWorks* report and Mayor Bloomberg's PlaNYC, and can better connect to the goals laid out by these sources.

While kitchen incubators may not be significant drivers of economic growth overall, they can serve as models of new and progressive systems that link the city's economic growth agenda to local economic development. In addition, the burgeoning local food scene of New York City carries great symbolic value. The small firms that operate in this sector serve as a counter to the many negative implications of conventional large scale food production. Kitchen incubators, in allowing such firms to compete through agglomeration and resource management, have the potential to explicitly tackle difficult elements of local food systems planning in order to tie food-related economic development to health, sustainability, and equity for the city's firms, employees, and the general public.

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