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Expanding the boundaries of food policy: The turn to equity in New York City

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ABSTRACT

Policymakers acknowledge that the food system is multidimensional and that social determinants affect diet-related health outcomes, yet cities have emphasized programs and policies narrowly connected to food access and nutritional health. Over the past fifteen years, the boundaries of food governance have expanded to include a wider range of issues and domains not previously considered within the purview of food policy, like labor, housing, and education policies. This paper illustrates the processes by which this shift occurs by presenting the case of New York City, which has broadened its food governance to a larger set of issues, requiring cross-sectoral initiatives that have led to a more expansive notion of food policy. This shift has resulted from an increased political salience of income inequality and poverty, and a change in municipal leadership that led to a greater emphasis on equity and social justice. Efforts to address equity affected the food system, and in turn led to diverse policies that have expanded the boundaries of food policy. The paper traces this evolution and outlines the implications of these findings for food governance and future urban food policy development and research.

1. Introduction

Studies identify poverty, interpersonal discrimination, and structural oppression based on race, ethnicity, gender, citizenship status, and class as the root causes of health disparities and high rates of diet-related non-communicable diseases (Braveman et al., 2011; Corburn, 2015; Friel and Ford, 2015; Lakerveld et al., 2020; Phelan and Link, 2015; Schnake-Mahl et al., 2020). In the field of public health, these root causes, or social determinants of health, underscore the importance of public policies addressing social justice and other variables that lie “upstream” from poor health outcomes such as hunger and malnourishment. Scholars have also described food systems as spanning (Pothukuchi and Kaufman, 2000) administrative boundaries, from agricultural departments assisting farmers to sanitation agencies managing food waste.

Concerns about the social determinants of health and environmental factors are not new (Story et al., 2008), nor is the promotion of health-in-all-policies, an approach that considers the effects of different city functions on public health (Corburn et al., 2014). However, despite the acknowledged benefits of such joined-up policies and more than a decade of advocacy for systemic food systems change, the status quo of urban food governance remains disjointed (Barling et al., 2002;

Hammelman et al., 2020; MacRae, 2011). In practice, food governance has often ignored upstream root causes, focusing instead on downstream manifestations of social determinants, such as malnourishment. Food issues are often assigned to specific agencies, like health departments, that may be organized to address only the discrete aspects of the food system that fall within their silos, such as diet-related diseases. Policies addressing social determinants of health, those upstream from the problem, often remain disconnected from downstream food and nutrition interventions by being unrecognized or unacknowledged as the causes of food-related health problems or by being addressed in separate and disconnected bureaucracies (Freudenberg et al., 2015; Sonnino et al., 2019). Disconnection also occurs when public agencies do not coordinate their efforts to influence the food system, or when policies that seem distant from food concerns, like neighborhood zoning or labor regulations, are not recognized for their effects on the food system and thus remain outside the purview of food policymakers and advocates. When the upstream social determinants of food and nutrition are ignored, or when silos prevent horizontal integration of food policies across agencies, cities risk inefficiently or ineffectively managing their food systems.

In New York City, food policy boundaries have expanded since the

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mid-2000s, from a focus on elements of the food system most closely associated with diet-related health outcomes like obesity and cardiovascular disease to equity-focused policies that encompass issues not previously considered within the domain of food policy, such as wages and working conditions, the availability of affordable housing, and access to education (Stahre et al., 2011). This paper reviews this change, discussing the origins and effects of the city's initial narrowly focused scope and explaining the turn to food equity during the administration of the current mayor and city council speaker. The evidence suggests that New York City's more expansive approach emerged not as a deliberate decision to integrate food and other policies but rather due to a political shift that increased the city's emphasis on equity and social justice. The co-benefits of this shift benefitted food workers, contributed to food security, and led to improvements to the food system that in turn bolstered the case for justice-based food policies that are reflected in more recent food policy initiatives that explicitly address equity and social justice.

The research methods used for this paper included qualitative data collection and analysis. Specifically, the arguments of this paper draw on prior research on food policy in New York City in the period 2008–2018 (Freudenberg et al., 2018), the application of transition theories to the study of the emergence of urban food systems plans and practices in North America and Western Europe (Ilieva, 2016), the authors' institution's direct involvement in research and advocacy processes that shaped some of the city's past and current food equity strategies, and analysis of publicly available government data and reports. The authors reviewed and thematically analyzed relevant New York City food policy documents prepared within the past fifteen years, including plans, policies, government reports, and news articles. Additionally, the conceptual framework proposed here is the outcome of prior in-depth examination of literature on the social determinants of health, analyses of relevant food policy reports, legislative provisions, and policy interventions, as well as numerous discussions between the two authors on the relationships between established policy analysis frameworks (e.g., Kingdon and Stano, 1984) and theories of socio-technical systems (Geels and Schot, 2007) and social practices (Shove et al., 2012).

2. Narrowly bounded food policies

Cities have physical and administrative infrastructures that can be resistant to change (Hommels, 2005). This is even true for boundary-spanning policy domains such as food when they are administered by governance structures of "mid-twentieth century institutional design" that have distinct functional programs (e.g., health, education, sanitation, etc.) and policy communities divided into these different domains (Healey, 2012). Food policy has typically been organized to fit the missions and purviews of separate city agencies (Sonnino et al., 2019). Actions to tackle the root causes of a food-related problem like malnourishment, which range from household food insecurity caused by poverty to obesogenic environments, are often addressed by distinct bureaucracies, such as health departments and economic development agencies, relying on discrete funding sources, separate legal authority, and administered by different officials (Hawkes et al., 2020). At the staff level, job descriptions, bureaucratic structures, and targeted funds inhibit taking broader approaches to multidimensional problems, especially because addressing the upstream, social determinants of these problems is much more complex and longer-range than implementing narrower programs that may be completed within an elected official's term of office. The professional training of agency staff in fields like urban planning, public policy, or public health also encourages intervention designs that fit the specific tools and methods of their fields (Dorninger et al., 2020).

Food systems typically encompass the people, practices, infrastructures, and policies and regulations that support and shape the food supply chain, including production, processing, distribution, consumption, and waste or nutrients management related to food. Food

plans, which are supposed to be comprehensive, are often viewed as vehicles to enable agencies and the public to envision systems change and to think more broadly and across disciplines and administrative divisions. Such plans play a vital role in helping cities see themselves through a food system lens, across departmental silos, and spur the development of new political spaces for food policy at the local level. For example, in Seattle, after the adoption of the Local Food Action Initiative in 2008, an Interdepartmental Food Team was formed which later led to the development of The City of Seattle Food Action Plan in 2012. The Team was hosted at Seattle's Office of Sustainability and the Environment but comprised lead members from a wide array of city departments, from Economic Development, Public Health, and Civil Rights to Parks and Recreation, Public Utilities, Planning and Development, Sustainability, and Human Services (Hodgson, 2018).

Food plans can address the entire food system, but in practice they are often narrowly focused on specific elements of the food supply chain or specific agencies that govern distinct parts of the food system. Plans serve as roadmaps for implementing agencies and a set of easily understandable strategies for the public, but they can also succumb to a local trap that overlooks higher-level forces that created food system inequities. Just as early notions of sustainable development often ignored and over-simplified the conflicts and inconsistencies among the aims of economic, social and environmental well-being to appeal to diverse stakeholders with conflicting goals (Campbell, 1996), discussions of food system policies outlined in food plans have often glossed over the complexity of the system and the difficulty of improving multiple moving downstream parts simultaneously (Campbell, 2016). Furthermore, cities engage in policy mimesis, seeking out existing policy innovations from other cities and adopting them to remain innovative and economically competitive rather than inventing new policies tailored to a city's unique circumstances (Cowell et al., 2016). The development of a food plan and the structure and content of such a plan can result from the tendency for policies to diffuse from place to place (Peck, 2011; Schrock et al., 2015). Often cities regard policy replication as sufficient demonstration of attention to issues such as food security and health.

The metrics used to measure and evaluate policies can also narrowly bound food policies because they frequently reflect an overt focus on downstream interventions. A study of the food strategies and plans of five North American cities (New York, Philadelphia, Los Angeles, Chicago, and Toronto) identified 260 distinct food system indicators (Ilieva, 2017), covering multiple facets of the urban food system, with most centered on downstream influences on the equity and sustainability of the food system. Limited data availability, as well as different data collection and reporting methods and frequencies, geographic scales, and topical scopes resulted in inconsistencies within and across cities (Coppo et al., 2017), which posed hurdles to both downstream and upstream indicator development and tracking.

Finally, the disconnection between broader, upstream policies that affect food systems and food-specific policies is reflected in academic research and professional practice that supports food metrics and evaluation techniques. Public health practitioners continue to focus interventions on downstream behavioral risks despite evidence of the effects of social determinants on health and the role of upstream factors like poverty, employment, housing affordability, or education on diet-related health inequalities (Freudenberg et al., 2015; Kelly and Barker, 2016). The attention to the manifestations of disparities rather than their causes happens for many reasons: professional traditions in fields like public health; demand for measurable short-term behavioral changes; silos among government officials, advocates, researchers, and funders; and a tendency for cities to emphasize smaller interventions targeted to specific populations or communities rather than policies that affect larger geographies (Freudenberg et al., 2015; Libman, 2015).

3. Food policy transitions: The case of New York city

New York City food policy has evolved significantly from a focus on improving nutrition and dietary behaviors that directly addressed food access and eating to a broader effort to increase social equity that produces food system and population health co-benefits. The evolution was neither explicit nor even acknowledged as a transition in food policy-making. Rather, it resulted from political shifts driven by the rising salience of social justice and the election of a mayor who campaigned on a promise to prioritize income equality and racial justice. This political change enabled enactment of a wide range of equity policies that affected the food system in significant ways, even if they have not been addressed as food policies per se. The turn to equity led policymakers and advocates to create new food plans and specific policies that were explicitly focused on connecting food and social justice. The following sections explain how this transition unfolded in New York City.

3.1. Emerging food policy

Food activism in New York City is rooted in the Progressive Era of the turn of the last century, but blossomed in the 1960s as activists, alongside city agencies, worked to alleviate hunger and food insecurity, improve food access, promote urban food production, and address many other food system problems (Povitz, 2019). This formative period of food activism laid the groundwork for the institutionalization of food policy in New York City in the early 2000s, corresponding to similar movements in cities worldwide (Doernberg et al., 2019; Morgan, 2015; Morgan and Sonnino, 2010; Rocha and Lessa, 2009; Vermeulen, 2008). From 2005 to 2013, during the second and third terms of the administration of New York City Mayor Michael Bloomberg, food received significant attention from city government (Kelly et al., 2016).

New York's food policies emerged in a period in which the interconnected issues of obesity and food access dominated national food policy discourse during the administration of a mayor concerned about public health and reducing the human and economic costs of non-communicable diseases. Food policies were also crafted to fit the existing administrative structure of city government in which individual agencies are charged with addressing discrete issues and overseeing specific regulatory domains. The focus on nutrition meant that the city's Department of Health was the lead agency for most food policies. Mayor Bloomberg established the city's first Office of Food Policy in 2007 to coordinate food-related health policies and programs. Its primary focus was reducing diet-related health disparities by improving nutritional standards of city-provided food, increasing enrollment in federal food subsidy programs like the Supplemental Nutrition Assistance Program (SNAP), and promoting access to supermarkets selling healthy food (Wurwarg, 2014). During this time, the city's Board of Health, which is under the Mayor's control, adopted regulations to prohibit trans fats, require calorie labeling on restaurant menus (ahead of a similar mandate in the federal Affordable Care Act), and attempting, albeit unsuccessfully, to limit serving sizes for sugar-sweetened beverages (Campbell, 2016; Freudenberg and Atkinson, 2015).

Food policymaking in New York City flourished after the 2008 financial crisis, a time when economic development was a paramount political project. In part to prime the economy, Federal economic recovery funds from the Centers for Disease Control were disbursed to cities, including New York, to plan anti-obesity initiatives (Bunnell et al., 2012). The Bloomberg administration, which was committed to pro-growth policies, launched a major initiative in 2009 to provide zoning and financial incentives to encourage supermarkets to locate or expand in neighborhoods with insufficient food retail, an attempt to incentivize the private sector to increase access to healthy food and to stimulate economic development in low-income neighborhoods (Cohen, 2016a; Rosenberg and Cohen, 2017).

The political salience of food policies was propelled by food advocacy organizations (e.g., Food Systems Network NYC [disbanded in

2014]; Hunger Free New York; NYC Food & Climate Steering Committee; Slow Food) and environmental (e.g., LES Ecology Center; Green Party of NY), social justice (Just Food; Community Food Advocates), and other advocacy organizations turning their attention to food policy (Freudenberg and Atkinson, 2015). Two government policy reports, *FoodNYC: A Blueprint for a Sustainable Food System* (Manhattan Borough President Scott and Stringer, 2010) by the Borough President of Manhattan, and *FoodWorks: A Vision to Improve NYC's Food System* (The New York City Council, 2013) by the Speaker of the New York City Council, articulated goals and proposed policies to make the food system more resilient, healthy, and equitable. These policy documents addressed the entire food supply chain, from agricultural production to food waste management, as well as the food access and nutrition issues that the Mayor's administration focused on. While the documents were not formally adopted as official plans, the processes by which they were crafted, with input from varied civil society stakeholders, and their comprehensiveness in addressing the entire food supply chain, helped to garner the support of a wide range of advocates concerned about issues from hunger, to economic development, to the environment.

These food policy documents helped to frame the whole food supply chain, not just food access and nutrition, as a valid concern of city government. For instance, the *FoodWorks* strategy put forward, within the same framework, policies to support immigrant farmers to start a business, provide affordable space and technical assistance for food start-ups, improve and diversify food transport, provide financial incentives for low income residents to shop at farmers markets, and reduce the use of polystyrene food trays in schools. As a City Council document, *FoodWorks* legitimized local policy interventions in the entire food system and built support among city legislators for food-related policies. *FoodWorks*, in its title and content, also framed food policy as a potential vehicle for job creation and economic development in addition to its role in improving nutrition and public health.

3.2. The turn to equity: Broadening the boundaries of food policy

The city began to focus more explicitly on equity and social justice with the election of Mayor Bill de Blasio in 2013, and this shift affected the scope of food policy. The new focus was a response to several factors. Bill de Blasio's 2013 campaign, following Occupy Wall Street, evoked Dickens' *Tale of Two Cities* to draw attention to widening economic inequality experienced under the previous administration, with nearly half of New York's population in or near poverty (below 150% of the poverty threshold), and wages below pre-recession levels (Office of the Mayor New York City, 2015a). De Blasio committed to using the mayoralty to increase economic equity and social justice, and address racially unjust policing practices that targeted Black and Latino communities (Reich et al., 2014; "The Progressive Agenda to Combat Inequality," n.d.).

Shortly after taking office, the de Blasio administration released *One New York*, a successor to the Bloomberg-era sustainability plan (*PlaNYC*) with a shift in emphasis from environmental issues, physical infrastructure, and other dimensions of sustainability, to reducing inequality, including that *One New York* pledged that all administration actions would be viewed through an equity lens (The City of New York, 2015). The administration incorporated equity in diverse municipal planning processes, such as directing funds for park renovation and maintenance to long-neglected parks (New York City Department of Parks and Recreation, 2014; NYC DOHMH, 2010). Even the *Mayor's Management Report*, a utilitarian compendium of city agency performance indicators – from pothole repair time to sidewalk cleanliness – was revised to explain how each agency's performance of its day-to-day functions contributed to social equity (The City of New York, 2014a).

New York's shift to equity in all policies since the de Blasio administration took office has had a twofold effect on the domain of food policy itself: it has deepened and expanded the scope of existing food policy making and, at the same time, it has prompted decision makers to

weave the multiplicity of disparate food policies and initiatives into a coherent policy agenda through the lens of equity. Three examples that follow, in school food, expanded access to SNAP benefits, and equity-focused food procurement, illustrate that the shift to equity has become integrated into various policymaking domains and has led to equity-focused food policymaking.

However, many other equity initiatives advanced by the de Blasio administration, while neither directly connected to food nor framed as policies intrinsic to the food system, nonetheless enabled individuals and families to be more food secure by increasing disposable income, supporting job security, and improving opportunities for economic and social mobility. The section concludes by discussing three areas where non-food equity policies have affected the food system: labor rights, affordable housing, and public education. The range of upstream/downstream, food/non-food policies are illustrated in Table 1.

3.2.1. School food

Institutional food procurement, particularly for school meals, is an example of how the emphasis on equity in all domains of city policy has made a tangible difference. Two school food programs that have been significantly expanded are the school breakfast and lunch programs.

The US federal government subsidizes school breakfasts for children of low-income households. To increase participation, cities have adopted policies to offer breakfasts in class rather than requiring students to arrive before school begins to eat in the cafeteria (Corcoran et al., 2016). New York City began such a “breakfast in the classroom” program in 2007 yet stopped its expansion out of concern that the program was causing students to eat multiple breakfasts, thus contributing to obesity (Van Wye et al., 2013). The de Blasio administration reversed course due to a greater concern about food insecurity and hunger than extra calories. In the 2016 budget, the city allocated \$17.9 million to phase in breakfast in the classroom at 530 elementary schools, serving 339,000 students by 2018, with the goal of making the program universal (Office of the Mayor New York City, 2015b). While in the last couple of years the expansion has slowed and the program is active in only about a tenth of the city’s 2525 public schools (Food Research and Action Center (FRAC), 2020; Hunger Free America, 2020), it still represents an important change in school food policy.

A more significant change in school food since the shift towards equity is a transition to universal school meals. New York City serves approximately 950,000 daily meals (breakfast, lunch and after-school snacks) (New York City Mayor’s Office of Food Policy, 2019). The school lunch program had a tiered payment system in which some children paid full price for lunch, others a reduced fee, and still others ate for free. A change in federal law allowed school districts in which most students qualify for free lunch because of low income to serve free lunches to all students. In 2017, as a result of a multi-year advocacy campaign focusing on the need to de-stigmatize free school food by eliminating disparities between students based on their lunch fees (Freudenberg et al., 2017), New York City adopted this policy school system-wide, making free lunch available to all 1.1 million students, including approximately 200,000 students who previously did not qualify for free lunch. The initiative is expected to increase the number of school children able to eat a nutritious lunch, reduce the shame associated with qualifying for free lunch, and save households who had been paying for lunch an average of \$300 per household per year (Piccoli and Harris, 2017).

More recently, municipal food policy was expanded to encompass programs and initiatives that address food insecurity and hunger among college students. College hunger in the US is still an under-appreciated domain of urban food policy, yet national reports document that food insecurity rates on campuses (as much as 39%), especially among students in two-year community colleges, are significantly higher than those for the general population, while student enrollment rates in food assistance programs such as SNAP are much lower. At the City University of New York, approximately 15% of students, 34,000 people, were

Table 1
Selected Upstream/Downstream and Food/Non-Food Policy Domains that have bearing on equity in the food system.

	Food	Non-food
Upstream	<ul style="list-style-type: none"> ● Increasing the amount of federal food program benefits ● Increasing enrollment in federal food programs ● Breakfast in the classroom ● Universal free school lunch ● Support for food manufacturers, food worker cooperatives, and food business startups ● Support for farmers from marginalized communities ● Job protections for fast food workers ● Protections for grocery workers ● Higher wages for fast food workers ● Food procurement policies that support health, equity, and sustainability ● Establishing food metrics that measure upstream factors e.g., fair labor practices, poverty, racial disparities in farmland ownership ● Support for food processing and distribution infrastructure 	<ul style="list-style-type: none"> ● Minimum and living wage policies ● Paid sick leave ● Support for community land trusts ● Universal ID card for undocumented workers ● Access to higher education ● Affordable housing policies ● Rent controls for commercial and residential properties ● Prohibition on asking job applicant’s criminal record ● Access to affordable health care ● Universal childcare ● Pathways to permanent residency for guest workers, including farmworkers ● Immigration policies that affect participation in government food programs (e.g., “public charge” rule) ● Universal access to civics education and opportunities for active participation in policymaking
Downstream	<ul style="list-style-type: none"> ● Municipal food nutrition standards ● Supermarket and healthy food retail development in underserved communities ● Ban on trans-fats ● Calorie labeling on menus ● Anti-hunger programs for college students ● Policies establishing local governance spaces for food policy (e.g., an Office of Food Policy) ● Establishing food metrics focusing on food system assets and services (e.g., food insecurity rates, redeemed SNAP benefits, number of urban farmers, pounds of food waste composted, etc.) ● Support for urban agriculture and training of urban farmers ● Green infrastructure policies, programs, and incentives ● Farm-to-school and farm-to-institution policies ● Development of alternative food networks and value chains (e.g., CSAs and farm share) ● Farmers market policies ● Nutrition education programs 	<ul style="list-style-type: none"> ● Protections for shift workers ● Suspended enforcement of e-bicycle regulations ● Business development support for worker cooperatives ● Participatory budgeting policies ● Policies to eliminate bias and racial discrimination in law enforcement ● Access to healthcare for immigrant and low-income individuals ● Access to affordable and reliable public transit

Note: Policies noted in italics font are not discussed in this paper.

often or sometimes hungry in the previous year. Recent surveys have revealed that these figures have increased dramatically as a result of COVID-19. In 2019, New York City Council Speaker Corey Johnson and CUNY Chancellor Félix V. Matos Rodríguez announced a \$1 million pilot project to address hunger among CUNY students.

3.2.2. SNAP access

The shift to equity has also influenced food assistance-related policies and initiatives beyond the domain of education. Approximately 80% of eligible New Yorkers are enrolled in and receive SNAP benefits. SNAP provides additional income for the recipient to purchase food and generates \$1.50 in local economic activity for every \$1 of benefits spent on food (U.S. Department of Agriculture Economic Research Service, 2018). In New York City, an estimated 631,000 people are eligible but not enrolled in SNAP, foregoing more than \$1 billion in federal benefits worth approximately \$1.5 billion to the city's economy (Cohen, 2019). The city's Human Resources Administration (HRA) has taken steps to increase enrollment of those eligible but not already enrolled in SNAP, including launching a website to encourage enrollment and shifting to online and telephone application and certification procedures to ease the process (Cohen, 2019).

3.2.3. Ethical food procurement

The City is getting closer to adopting the standards put forward by the Good Food Purchasing Program (GFPP), an effort in cities across the US to use food procurement to advance broader social goals, all connected to food but also comprising economic, environmental, social, and ethical outcomes (The Center for Good Food Purchasing, n.d.). The GFPP is a multi-layered, values-based procurement approach which hinges on five core values: local economies, health, valued workforce, animal welfare, and environmental sustainability. So far, GFPP policies have been adopted in Los Angeles, San Francisco, Boston, Washington DC, Chicago, and Cincinnati and there are active campaigns in New York, Buffalo, the Twin Cities (Minneapolis and St. Paul), and Denver (Repasy et al., 2019). In Fall 2019, as part of a new City Council food equity agenda (see also the next Section) the Council introduced legislation to create a good food purchasing program for New York City. While the bill has not yet been passed, the city has moved forward with using more decision criteria in deciding from which food vendors the city contracts. The Department of Education, the city agency that buys the largest quantity of food, has experimented with including multiple standards in its bids on a case-by-case basis to establish a process for other agencies to follow should the GFPP be adopted citywide.

3.2.4. Labor rights

Labor policies are consequential for food choices and nutrition-related outcomes, especially for food workers who typically earn very low wages (Devine et al., 2006). Approximately 10% of the US workforce is employed in food service or food retail (U.S. Bureau of Labor Statistics, 2019). Prior to the COVID-19 pandemic, New York City's leisure and hospitality sector (primarily food service workers) was the fastest growing employment sector since 2009, with nearly half of the workers in this sector foreign-born and therefore more vulnerable to unfair labor practices (DiNapoli, 2019). Although not explicitly aimed at improving food security or helping food workers, several types of policies to improve labor conditions in New York had the effect of addressing food insecurity and other food-related problems faced by the city's large food workforce.

3.2.4.1. Wage increases. The city administration adopted policies to increase wages and improve job quality, security, and opportunities for advancement for the city's more than 3.5 million private sector employees (New York State Department of Labor, 2020). For example, in 2014, the city expanded a law that requires commercial tenants in facilities subsidized by the city to pay a "living wage" of \$13.13 per hour

(The City of New York, 2014b). These policies benefited all workers, but particularly low wage workers in the city's food sector, in many ways, including by helping them and their families afford healthy food. Since 2014, there has been a growing political movement in the US to raise the minimum wage, particularly for fast food workers. This coincided with a national movement called *Fight for Fifteen*, which calls for fast-food employers to provide at least a \$15 hourly wage. City support led New York State to raise the minimum wage for fast-food workers to \$15/hour in 2015 (New York City Fast Food Wage Board, 2015; Office of the Mayor City of New York, 2015). Raising the minimum wage has meant higher incomes for approximately 25% of minimum wage earners in New York City, reducing the number of poor or near-poor residents by an estimated 748,000 (Office of the Mayor New York City, 2015a).

3.2.4.2. Improved working conditions. Low wage food workers, especially those foreign-born workers without legal immigration status, are particularly vulnerable to labor violations such as failure to pay overtime wages or theft of customer tips, a particular problem for US restaurant workers who depend on tips for much of their income (Office of the Mayor New York City, 2015a, pp. 2–3). To address the needs of these workers, in 2015 the city created an Office of Labor Standards to educate employers about labor laws (Office of the Mayor New York City, 2015a, pp. 2–3), create public education campaigns regarding worker rights, research and promote programs about worker protections and impose penalties on businesses that violate NYC's labor standards (Council of the City of New York, 2015; Office of the Mayor New York City, 2015c).

The city also expanded paid sick leave to an estimated 350,000 additional workers (Testimony of Speaker of the Council Melissa Mark-Viverito, 2014; The Council of the City of New York Finance Division, 2014). Paid sick leave is particularly important for low-wage workers, many of whom face financial hardships if they lose wages when sick. This is especially true of food service workers, a sector in which fewer than half of all New York City workers had sick leave benefits before the expansion (Rankin, 2012). Guaranteeing paid sick leave not only ensures that workers can recover from illnesses without losing income, but also enables them not to report to work when sick, reducing the spread of communicable diseases.

In 2017, New York City adopted several laws to help the many fast-food employees who are shift workers, with schedules that change frequently. Workplace stress is associated with obesity and diet-related diseases, and particularly affects the many shift workers found in the fast-food sector or in food retail (Lowden et al., 2010). Under one law, fast food employers must provide schedules two weeks in advance, pay premiums for changes to schedules, and offer open shifts to existing employees. Another prohibits employers from requiring the same workers to close the business at night and then reopen it first thing in the morning and requires employees to receive 72 hour advance notice of their schedules (City of New York Department of Consumer Affairs, 2017).

Even traffic laws have been amended to address food labor issues. In New York, food delivery workers who often use electric bicycles ("e-bikes") rely on these expensive investments to make deliveries more efficiently, but they have been illegal to operate in New York City, with frequent seizures by the police (Lee et al., 2017). During the COVID-19 outbreak, after mandating that all restaurants and bars move to takeout/delivery options only, the New York Police Department temporarily stopped issuing tickets and seizing e-bikes of food delivery cyclists. While this was a temporary win, advocates continue to push for a permanent end to a policy which they see as unjust and unnecessary.

3.2.4.3. Protection against discrimination. Food businesses employ many New Yorkers who have been incarcerated or who lack legal immigration status, yet both groups face vulnerabilities as job applicants and employees. Discrimination against those with felony convictions

disproportionately affects African American men in the US, who are six times more likely to be imprisoned than white men (James, 2010; Martin et al., 2015). Undocumented workers cannot join labor organizations and as a result often accept substandard wages or endure wage theft and unsafe working conditions. New York City adopted two policies to partly address these injustices. To address discrimination against those with a criminal record, the City prohibited any employer from inquiring about a job applicant's criminal record until after the employer makes a conditional offer of employment (Shimizu, 2018). To help undocumented New Yorkers, the city created a universal identification card for those unable to get other forms of government identification to enable them to open bank accounts and sign apartment leases, improving their quality of life and helping them to save money safely and have secure housing.

3.2.4.4. Food sector job security. The food retail sector is in transition, with conventional grocers with unionized workers struggling financially while new retailers with non-union employees (e.g., Amazon/Whole Foods) gaining market share. To increase job security for food retail workers, the city enacted a Grocery Worker Retention Act requiring buyers of existing grocery businesses to retain the previous owner's employees for a transition period of 90 days after the business is purchased to prevent the new owners from firing the entire staff (The City of New York, n.d.). At the beginning of 2020, the New York City Council introduced two bills to increase job protections for fast food workers. The first will make it illegal for fast food employers to fire an employee without just cause (The New York City Council, 2019a). The second requires fast food employers to implement a policy of "inverse seniority," whereby more senior employees will be the last to face a layoff, and requires the arbitration of disagreements between fast food employers and employees (The New York City Council, 2019b). If enacted, both would improve the labor conditions for some of the lowest-paid workers in the city and result in greater equity in the city's food system.

3.2.4.5. Building wealth through worker cooperatives. Worker cooperatives are mechanisms for building community wealth, economic democracy (Iuvienne et al., 2010), and resilience to help communities withstand pressures from real estate development, economic crises, and injustices which disproportionately affect low income, precarious workers, many of whom are employed in the food sector. Worker cooperatives are for-profit, worker-owned businesses in which the worker-owners jointly make decisions about the company and its policies. As of 2019, the New York City Network of Worker Cooperatives reported close to 50 members, which is more than double the number of New York City cooperatives recorded in 2013 (Pavlovskaya et al., 2016) and higher than the 35.7 percent net growth in worker cooperatives nationwide during the same period (Prushinskaya, 2020). Additionally, New York City's cooperatives represent about 10% of the estimated 465 worker cooperatives in the US (Prushinskaya, 2020). Food and hospitality worker cooperatives are the second largest group of such organizations in the city (Pavlovskaya et al., 2016), and are led predominantly by worker-owners that are women, Black and Latinx (Cowett, 2017; Pavlovskaya et al., 2016).

An important turning point in the institutionalization of worker cooperative policies and government support for them in New York City was the city's 2015 decision to launch a \$1.2 million Worker Cooperative Business Development Initiative (WCBDI), becoming the first US city to fund such a program. In its first year of operation, the WCBDI reported to have supported the creation of 21 new worker cooperatives (New York City Small Business Services and New York City Mayor's Office of Contract Services, 2015). The budget was expanded to \$3.6 million in FY19 (New York City Network of Worker Cooperatives, 2019). A factor in the city's decision to support cooperatives is that many are owned by non-white workers, such as food sector businesses

including Brooklyn Packers (food distributors), The Central Brooklyn Food Cooperative, Woke Foods, Ityopia Rootz, Green Feen Organix, and Mofya (New York City Network of Worker Cooperatives, n.d.).

3.2.5. Housing policies

Secure housing supports household health but rent burdens in expensive cities like New York cause financial stresses that contribute to poorer health and a higher likelihood of postponing health-related expenses such as medical care or medicine (Meltzer and Schwartz, 2016). In New York City, approximately 80 to 90% of low-income households spend 30% or more of their income on rent, contributing to food insecurity and malnourishment (Capperis et al., 2015). Affordable housing minimizes rent burdens and in doing so enables households to spend more of their disposable income on food, while also providing a stable home environment for family members to cook and eat. Three strategies to address housing costs have been implemented by the current administration.

3.2.5.1. Construction of affordable housing. A major initiative of the de Blasio administration was a citywide plan to build and preserve 300,000 units of affordable housing by 2026. Between the inception of the plan in 2013 and 2019, the number of affordable housing units increased by 147,933 (The City of New York, 2020a, 2014c). The housing plan relies primarily on rezoning neighborhoods to allow higher density development while requiring permanently affordable units in all resulting residential projects (Department of City Planning of New York and NYC Department of Housing Preservation and Development, 2015; The City of New York, 2014c). From a food policy perspective, new residential development will attract new food retailers, but critics assert that without careful planning, new commercial real estate and higher income residents may attract higher-priced stores, displacing existing grocers and having the unintended effect of making food less accessible for low-income residents (Cohen, 2016b).

3.2.5.2. Rent controls. Rent control is another strategy to reduce rent burdens and free up income for food. New York City has approximately 630,000 rent-regulated apartments that house more than 1.2 million tenants (Navarro, 2015). In 2015, and again in 2016, the city's Rent Guidelines Board voted to freeze one-year leases for these apartments, the first time the Board has ever done so. As a result of the Covid-19 pandemic, on June 17, 2020, the rent board voted to freeze rents on regulated apartments for next year (Brenzel, 2020a; Ricciulli, 2020). Because rent control creates incentives for landlords to harass and evict tenants paying low rents, the city also formed a tenant support unit to help at-risk renters (New York State Office of the Governor, 2015).

3.2.5.3. Community land trusts. Land tenure is yet another key component of housing policy with direct implications for food policy and community food systems. In fact, securing access and long-term ownership of land and housing is both an upstream/non-food strategy to provide more permanently affordable housing (Abromowitz, 1991; Hackett et al., 2019) and a means to remove land from the speculative market, as well as a downstream/food system strategy to provide more secure access to land for urban agriculture (Campbell and Salus, 2003). Community land trusts (CLTs) are a form of shared-equity ownership to "de-commodify property and empower local residents," (Allerton, 2020) one mechanism through which the boundaries of food policy have expanded and benefited from equity-centered, community-driven policy efforts. In the past few years, political support for CLTs in New York has grown with both the City Council and the mayor taking steps to support their institutionalization.

For instance, in 2017 the New York City's Department of Housing Preservation and Development (HPD) announced a \$1.65 million grant to support the development of new CLTs and the strengthening and expansion of existing ones (Brenzel, 2020b). In 2019, the City Council

allocated \$870,000 to provide technical support for existing and emerging CLTs and support their organizing work (Del Rio et al., 2019). While the funding was not directly designated for land acquisition, the provision has deepened the city's engagement with CLTs and permanent affordable housing in the city and the mayor's affordable housing plan.

Due to the COVID-19 pandemic, the fiscal year 2021 budget underwent substantial cuts that reduced HPD's capital budget by \$457 million or about 40 percent (Brenzel, 2020b). Despite these cuts, the budget still includes \$637,000 for the city's community land trust initiative. While deemed by advocates as insufficient, especially in view of the dire economic and housing circumstances in which many New Yorkers find themselves as a result of the pandemic, it is a sign of continued commitment to government support for CLTs and the communities they represent. As a result, the number of CLTs has grown from one in 2019 to about a dozen that have been established or are in the process of being established (Castillo et al., 2019).

3.2.6. Education policies

Education policies affect food and nutrition, with important implications for urban food policy. US schools provide meals that can account for a large percentage of students' daily calories and nutrients, and free up family disposable income that would otherwise be spent on breakfasts and lunches (Kinsey et al., 2020). There is also evidence that overall educational attainment, not just nutrition education, produces positive health co-benefits, including household food security (Backlund et al., 1999; Feinstein et al., 2006; Mutisya et al., 2016; Pieters et al., 2013; Winkleby et al., 1992). Additionally, adults with more years of schooling have been found to be less likely to smoke, drink excessively, to be overweight or obese, or to use illegal drugs (Cutler and Lleras-Muney, 2006). Scholars focusing specifically on the links between education and BMI or obesity (Arendt, 2005; Devaux et al., 2011; Kenkel et al., 2006; Spasojević, 2010) confirm this relationship, noting that it is even more pronounced for women.

New York City has taken steps to improve access to food for the more than 1.1 million students in its school system (The City of New York Department of Education, 2020). Establishing a universal pre-kindergarten program was one element of the policy platform of de Blasio in 2013 and the city has been successful in introducing universal preschool for more than 68,547 low-income children (Associated Press, 2015). By improving school readiness, this upstream policy intervention aims to improve the life outcomes of participants (Muennig, 2015), including increasing their earning potential and ability to be food secure later in life. Universal pre-kindergarten not only ensures that these children are fed healthy food during the day, but by reducing childcare costs and enabling young parents to work, it helps low-income households afford healthy food (New York City Office of the Mayor et al., 2014).

Increasing access to higher education is another "non-food" policy with important implications for food security and healthy nutrition. New York City is home to the nation's largest urban public university system, The City University of New York (CUNY), with 25 campuses and 271,242 matriculating students (CUNY Office of Institutional Research and Assessment, 2020). Public universities like CUNY play an essential role in social mobility (Chetty et al., 2017) and, by extension, in the health and nutrition outcomes for large numbers of students. CUNY's tuition is significantly lower than private universities, enabling those who are first in their family to pursue higher education to earn college degrees. In the academic year 2018–2019, 44% of the enrolled undergraduate students were first-generation college students (CUNY, 2019). CUNY's affordability has also expanded access to college for low-income students who are Black or Hispanic, representing about 58% of all enrolled undergraduate students in Fall 2018 (CUNY Office of Institutional Research and Assessment, 2019).

3.3. Codifying equity into a new comprehensive food agenda and legislation

Comprehensive urban food system strategies provide a cohesive and systematic framework for food policymaking at the local level (Ilieva, 2016; Morgan and Sonnino, 2010; Sonnino and Spayde, 2014). While seldom legally binding, they contribute to the development of strategic capacities for urban food governance (Mendes, 2008) and allow for new relationships between government and civil society (Wiskerke, 2009). Nearly a decade after the release of *FoodWorks*, the city's first comprehensive food strategy, the New York City Council unveiled in 2019 its policy platform, *Growing Food Equity in New York City: A City Council Agenda* (The New York City Council, 2019c) which reflected both the Mayor's and City Council's turn to food equity. The City Council's new food agenda frames food policy in the context of persistent food system injustices such as unequal access to healthy, affordable food, and socioeconomic, racial/ethnic and other disparities in the food system that affect the well-being of New Yorkers. Through the prism of equity, the document recommends new policies to improve food governance, reduce hunger, help food workers, promote regional food procurement, reduce food waste, and improve school food, outlining legislative and budget changes to facilitate implementation. Several key recommendations are: to strengthen and make permanent the Mayor's Office of Food Policy; to require a 10-year citywide food policy plan as well as a stand-alone urban agriculture plan; and to require the annual New York City Food Metrics report to include data on city food initiatives not currently tracked.

Following the release of *Growing Food Equity*, the City Council introduced 14 bills and two resolutions (The New York City Council Committee on Economic Development, 2019) to codify some of its recommendations. At the beginning of 2020, six of those measures were passed, four of which have been enacted. Examples of food equity legislation include a requirement to develop a plan to increase participation in the Supplemental Nutrition Assistance Program (SNAP) for eligible seniors and a mandate to strengthen a program offering discounts for SNAP participants to buy fruits and vegetables at farmers markets. In addition to the new legislation, the Council also adopted a resolution (The New York City Council, 2020a) calling on New York State to expand eligibility for SNAP among public college students and a resolution (The New York City Council, 2020b) urging the state to opt into a SNAP Restaurant Meals Program that allows disabled, elderly and homeless SNAP recipients, who are less likely to have the physical ability or kitchen space to cook from scratch, to use their benefits on restaurant meals and other prepared foods.

These legislative developments illustrate the influence that an ideological shift to equity in the City's administration and City Council has had on food policy instruments and discourses. The resulting strategies and legislation mark a new wave of food legislation and activism, one that, if sustained, can establish a culture of transformative food policy and planning over time.

3.4. The COVID-19 pandemic and food policy

The COVID-19 pandemic has further highlighted the fragility of food systems in cities globally. While most severely affecting cities in the Global South, the economic disruption caused by the pandemic has unmasked poverty, inequality, and inadequate social wages even in the world's wealthiest cities (Kingsley, 2020). In New York City, significant job losses imposed by social distancing requirements and business closures have pressured the city administration to provide emergency food relief to stave off hunger and address disruptions to food supply chains. The pandemic led to a response that acknowledged the need to simultaneously provide emergency food while also implementing policies and programs that extended beyond the domain of food. For example, the emergency response included policies to provide free childcare to grocery workers and the deployment of 11,000 taxi and Uber drivers to

deliver emergency meals (The City of New York, 2020b). The city also committed to supporting regional agriculture, recognizing the need for larger and more reliable short food supply chains to mitigate the effects of future crises. In the space of just a few weeks, the city mobilized resources across different agencies in a broad policy response to support the food system, including adopting a wide range of non-food policies that affect transportation logistics, economic relief, social welfare, and food availability (The Hunter College NYC Food Policy Center et al., 2020).

4. Conclusions and policy implications

This paper presented the case of New York City to examine how a shift in emphasis to social justice and equity led to the broadening of municipal food policy to include policy domains not previously considered connected to food, like labor, housing, and education. It presented examples of policies designed to eliminate inequities and by doing so to improve the food system, and argued that broadening the scope of food policy is integral to achieving food policy's stated goals and greater social justice across all spheres of the food system. Below we summarize the key implications for future food policy and research.

4.1. Downstream food policies are necessary but insufficient

Public health and food policy literature have provided compelling evidence that food policies and programs that solely emphasize downstream outcomes are less effective than those coupled with policies that address upstream, social determinants of health. The success of food policies is constrained by existing socioeconomics, political dynamics, and ecological factors that both create downstream inequities (e.g., food insecurity) and limit potential solutions (Moragues-Faus and Carroll, 2018). For example, in the case of New York City, dozens of food policy initiatives and interventions were developed between 2008 and 2018 to address diet-related health disparities, yet disparities in access to programs like SNAP exist (Freudenberg et al., 2017), particularly in neighborhoods with large populations of immigrants who may forego federal food benefits out of fears that enrollment will make them vulnerable to anti-immigrant federal policies (Cohen, 2019). Policies providing incentives to build new supermarkets have not greatly increased food security or shifts to healthier diets among low-income populations (Cohen, 2018; Rosenberg and Cohen, 2017). Taken in the aggregate, this evidence suggests that food policies need to address upstream concerns like anti-immigrant sentiment and the poverty that prevents households from purchasing healthy food even if they have physical access to food retailers.

4.2. Broadening the scope of food policy is a multi-phase, multi-level process

Shifting to a policy regime advancing food equity through both food-specific and non-food, upstream public policies cannot occur overnight. The shift will look differently in every city, but it will likely involve a multi-phase, multi-level process whereby both local politics and larger socioeconomic factors determine the content and pace of institutional change. In New York City, the turn to equity in food policy has involved a multi-phase process that is still underway. Initial efforts to develop food policies focused on building institutional infrastructure, including an office of food policy, and programs and policies to improve food access and nutrition that centered on existing public and private entities like schools and supermarkets. A political shift helped to reorient food policy from its health focus to a broader notion that food both contributes to inequities and can be a vehicle to promote social justice. This led to a shift in the emphasis of food policymaking to addressing the structural causes of persistent disparities in diet-related health and food insecurity and widened the domain of food policy to include other municipal issues, from worker protections to affordable housing to

public education. This evolution has been led and supported by advocacy organizations in civil society as well as administrators and elected officials.

4.3. Non-food, upstream policies are essential to transformative food policy

Despite substantial food policy initiatives in New York City, some of the most serious challenges to an equitable, healthy food system, from neighborhood gentrification to federal policies limiting access to food programs, require much broader political and economic changes at multiple scales. This indicates the need for an expanded notion of what constitutes food policy and food planning, and the empowerment and engagement of a broader segment of the population in transforming food policy (Freudenberg et al., 2017).

Neglecting non-food, upstream policies in food system planning is perilous for several reasons. If policy makers in the domains of housing, planning, economic development or social welfare fail to consider the results of their policy decisions on food security or chronic diseases, they may miss opportunities to maximize the effects of these broader progressive policies on population health and food system sustainability or may not recognize and take steps to avoid unintended negative consequences to the food system (Corburn et al., 2014). They may also overlook the potential for downstream interventions in the food system, from urban farming projects (Reynolds and Cohen, 2016) to food sharing systems (Loh and Agyeman, 2019), to alleviate upstream concerns about economic and social inequality. Intervening downstream to change behaviors or improve neighborhood food environments may produce measurable benefits to a particular population, but the effects may be more limited in scale, scope, and duration than if policies were focused on broader social problems like eliminating class, race, or gender oppression. Moreover, in creating helpful but small-scale change, downstream interventions may inadvertently serve as a palliative that reinforces existing structures and diminishes pressure for broader social change (Cretella, 2015).

Other specific downstream and upstream food and non-food policy areas that are only partly covered in New York City's food governance agenda, but that have the potential to contribute to an integrated approach to food policy, include: policies focusing on strengthening access to food processing, storage, and transportation infrastructure for small and medium size food and farming businesses (The City of New York, 2020b), further expanding access to public transit for lower income residents (The City of New York, 2020c), immigrant-related policies to expand access to affordable health care for all (Goodman, 2019; The City of New York Office of the Mayor, 2019), fruit and vegetable prescriptions administered by public hospitals (The City of New York - Health + Hospitals, 2014), and strengthened small business services and outreach to food-related businesses and initiatives, especially those led by public housing residents (The City of New York, 2020d, 2020e).

4.4. Future policy should also focus on an expanded set of metrics for evaluation

Food policy in New York City has taken on an expanded scope in which addressing social welfare, land use, housing, and many other urban issues that affect food provision, food retail, food access, and nutritional health are understood as central to a functioning, equitable food system. As this transition progresses, researchers and government officials should focus on evaluating both the effectiveness of food initiatives, such as those tracked in New York City's annual food metrics reports, as well as evaluating legislation and programs that are part of the expanded domain of food policy and are not immediately recognizable as food policies, such as labor, education, and housing policies and also transportation, environmental management, parks, and many other seemingly unrelated policies that affect food systems. This is the only way to ensure that cities achieve the goals of transformative food

policy and planning centered on equity and social justice and institutionalize food policy in local governance.

4.5. Cities are the locus of food justice policymaking

Despite the constraints of siloed administrative structures and limited purview over many social determinants of food insecurity, malnourishment, and inequities in the food system, cities, and networks of cities, are important loci of innovative food policymaking. Cities have served as policy laboratories, particularly with respect to complex policy arenas like climate change and environmental sustainability, where federal governments have been unwilling or unable to act (Barber, 2013). Cities offer physical proximity to encourage interaction among elected officials, bureaucrats, activists, entrepreneurs and other stakeholders, fostering the active, democratic participation of these stakeholders in shaping food systems (Hassanein, 2003; Santo and Moragues-Faus, 2019). While municipal governments have limited control over sectors such as agriculture and food distribution, they have direct responsibilities for public health, education, land use, transportation, sanitation, and other domains that affect the food system, and for large cities with substantial procurement budgets, the purchasing power to influence food production and distribution markets beyond city boundaries (Sonnino, 2019). Cities are also the physical locations in which much of contemporary food politics is played out, in struggles for community power, control of public space, consumer-based activism, and engagement with locally controlled institutions that can be important innovators (Silver et al., 2017).

City administrative and policy systems can overcome rigid tendencies and be nimbler than those of state or national governments, facilitating innovation, illustrated most recently in New York City's response to the logistical and economic impacts of COVID-19 by enabling bureaucrats to breach silos and expand the boundaries of food policymaking. This could lead more cities to approach food from a systems perspective that weaves together food policy issues and wider social, environmental, and economic policy domains (Moragues-Faus and Morgan, 2015; Sonnino, 2019). In a small but growing number of cities, food policy coordinators have been given the task of encouraging coordination across different government agency silos, and while this effort is nascent, the pandemic has exacerbated economic inequalities and pushed large populations in both the Global North and South into food insecurity. With a concerted effort to put structural racism and other forms of oppression at the center of food systems planning, COVID-19 may accelerate the widening of food policy boundaries by engaging social justice advocates, as well as public health and urban planning experts, in food policymaking (Council of the District of Columbia, 2015; Junes, 2010; The City Council of the City of Austin, 2008).

CRedit authorship contribution statement

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