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Appendix A
Glossary of terms

Agroredes. *Agri-networks*. Devised in the PMA, these networks consociate small producers, aiming to leverage their collective force, strengthen their economic and technical aptitudes and link them more directly with each other and within the Bogotá food supply chain.

Arepa. An important element of the Colombian gastronomy, the *arepa* can take many different forms and varies considerably by region; its origins are also the subject of a fierce place-of-pride debate among several South American nations. Quite roughly, it is *a plain or enriched flat cornmeal-based and griddle-cooked 'bread'*, and it is often served with accompaniments such as eggs, cheese or meat.

Asistencial. A rough translation of *asistencial* is *welfarist*, used to charge its target with a deficiently *dependent* character. This might be considered as similar to the colloquial *moocher* label used in NYC.

Bandeja paisa. The *paisa platter* is Colombia's semi-official national dish and recognizably characteristic of Medellín. It composes, on a (very) large platter – hence its name – beans (cooked with pork), rice, ground beef, *chicharrones*, a fried egg, fried plantains, chorizo, black sausage, *hogao* sauce, an *arepa*, tomato slices and avocado, and it is often served accompanied by *mazamorra* with milk and *panela*.

Barrio de invasión. An *informal neighbourhood* that could be variably translated as shantytown, squatter settlement, slum or favela. Literally, it is an 'invasionary neighbourhood'. Also referred to as a *barrio informal*.

Barrio informal. *See barrio de invasión*.

BMGF. The *Bill and Melinda Gates Foundation* is among the largest and most influential privately funded foundations in the world, and its massive Global Development division emphasises projects of poverty reduction and healthcare improvement. Its projects evolve primarily in focus areas of financial services for the poor, agricultural development and water, and sanitation and hygiene. In the context of this dissertation, the foundation is notable for its influential neoproductivist development discourse.

Bogotano. Relating to Bogotá and/or its people or customs.

Campesino. Most often translated as *peasant*; *country person* or *rural worker* might be better translations for their more positive English connotations.

CARE. *A major global development organization with wide project interests, including education, health and nutrition, water and sanitation and economic oppor*tunity.

Catholic Social Teaching (CST). A *body of social doctrine* that treats issues related to social justice and relates closely to the Catholic Church's social advocacy on behalf of human rights. Concise summary is difficult, as there is no conclusive enchiridion of Church documents that formally circumscribes theory. Rather, CST refers to the cumulative tradition of Catholic teachings – and their several interpretations – on matters related to political, economic and social issues, and different protagonists name different foundational documents and even principles. CST emerges (in its contemporary lineage) from Pope Leo XIII's (1891) encyclical *Rerum Novarum* and is widely considered to stand on cardinal principals of dignity, solidarity, rights, and subsidiarity. Other commentators have added further cardinal principles to this essential list, including several themes particularly relevant in the context of this dissertation: a 'preferential option for the poor', the dignity of work and an obligation of stewardship of the world's natural wealth.

CFS. The *Committee on World Food Security* was formed in 1974 as an intergovernmental body 'to serve as a forum for review and follow up of food security policies' but reformed in 2009 to include a much wider body of stakeholders. Notably and most visibly, it is the prominent gateway for civil society participation within UN food security decision-making. Among other civil society members, it includes, for example, representatives of smallholder associations and of Via Campesina, the leading food sovereignty movement actor.

Chicharrones. *Fried pork rinds*.

CISAN. Bogotá's *Comité Distrital Intersectorial de Alimentación y Nutrición*, the *Intersectorial District Committee for Food and Nutrition*.

Comedores comunitarios. *Community canteens*. Bogotá has 316 publicly funded and administered community canteens, located throughout the city's 19 localities and oriented to serve people in the lowest two income brackets. The canteens programme opened in 2004 serving approximately 5,500 people, and in 2011 it had grown to serve over 93,000 (Florez 2012). Under Bogotá Humana and in accordance with its pronounced human development vision, canteens are to continue serving meals but expand the scope of their operations to serve also as 'centres of referral and capacity development'.

CST. *See Catholic Social Teaching*

CTPD. The *Consejo Territorial de Planeación Distrital,* the Bogotá Territorial Planning Council, is a consultative body created to foster and practice the principle of participatory democracy in the planning ambit.

DFID. The UK *Department for International Development* is a British ministerial department that works globally to address extreme poverty.

DOHMH. New York City *Department of Health and Mental Hygiene*.

DPAE. Bogotá's *Dirección de Prevención y Atención de Emergencias*, the *Office of Emergency Prevention and Assistance*

EBT. *Electronic Benefit Transfer* is an electronic system used in the United States to distribute government-issued welfare assistance to recipients by way of an electronic payment card. Importantly in the context of this study, EBT is used to disburse SNAP food assistance. *See also SNAP*.

FAO. The *Food and Agriculture Organization of the United Nations*.

Foodways. A*n understanding of food, eating, and 'everything' that intersects with these that is popular in the social sciences. It comprehends the entirety of the social, cultural and economic practices related to food – particularly issues related to meaning and power – and assumes an intently holistic, transdisciplinary perspective*.

FoodWorks. As its subtitle indicates, the *FoodWorks (2010)* plan is a 'vision to improve New York City's food system'. The report 'outlines a plan for key legislative changes, public and private investments, infrastructure improvements, and partnerships to improve [NYC's] food system' (2). The plan itself does not constitute binding policy, but it has generated a related series of 'FoodWorks bills' that do.

GECAFS, the *Global Environmental Change and Food Systems* project, was an international and interdisciplinary effort to understand the links between Global Environmental Change (GEC) and food security. It ran between 2001 and 2010 and included members from the academic, governmental and non-governmental realms.

Green Carts. A NYC effort to expand access to fresh fruits and vegetables in underserved areas, this programme facilitated 1,000 permits for vendor operation in targeted neighbourhoods.

Health Bucks. A N*YC effort run by the city's health department and administered at farmer's markets, this programme gives an additional $2 spending coupon for each $5 that a person receiving welfare benefits spends at the markets* using SNAP. *See also SNAP*.

ICBF. The *Instituto Colombiano de Bienestar Familiar,* the *Colombian Institute for Family Wellbeing*.

Locality. Bogotá is administratively subdivided into 20 localities and 1200 neighbourhoods.

Mazamorra. A *fermented corn drink*.

Menú. *A 'complete' lunch* that accords clearly codified cultural norms and can be taken at any of countless restaurants or market stalls in Bogotá. It can range in price from expensive to downright cheap, and some bogotanos consume a *menú* daily. The meal typically consists of soup, meat, rice, beans, fried plantains, dessert and sugary fruit juice, all served in abundance.

Mercados campesinos. *Farmer's markets*.

Minga. A *communal work session*. This is a word and a practice of Andean indigenous origin and popularly practiced in the contemporary urban agriculture movement as something of a reclamation of tradition (as well as a practically productive effort).

Moocher. The American equivalent of *asistencial*. A person who solicits or accepts assistance but does not himself make a significant contribution.

Nutriredes. *Nutri-networks* that consociate small Bogotá shop owners in an effort to potentiate their role in the city's food system.

Paloquemao. Bogotá's wholesale market; it is privately operated and serves both logistical and commercial functions.

Panela. Boiled, evaporated, and solidified whole *cane sugar*. Colombia is the largest producer and consumer of panela in the world, and the product plays an important role in Colombian foodways.

PDBH. The *Plan de Desarrollo Bogotá Humana,* the *Human/e Bogotá Development Plan*. The development plan administered by the current Bogotá mayoral administration of Gustavo Petro (for the 2012-2016 term), it aligns goals according to three axes, which aim respectively to reduce social segregation, to respond to and adapt to the onset of climate change, and to protect and defend the 'public sphere'. In this text, it is commonly referred to simply as *the plan*.

PlaNYC. A plan released by NYC Mayor Bloomberg in 2007 and updated several times thereafter, it comprises a holistic city plan, which, though not strictly a *development plan*, serves, in the context of this dissertation, much the same purposes. The plan's titular vision is of a 'greener, greater New York', and the text of plan expresses an importantly economized vision of progress. The plan's 2011 update expressly recognizes the importance of food systems to the city's prosperity.

Plazas de mercado. *Market plazas,* distributed throughout Bogotá's neighbourhoods. These are fixed, covered structures and open daily for the sale of foodstuffs, including mostly fruits and vegetables, tubers, meat, fish and bulk grains, as well as some non-perishable items.

PMA. Also referred to as the *PMAASAB* or *PMASAB*, the *Plan Maestro de Abastecimiento de Alimentos y Seguridad Alimentaria para Bogotá Distrito Capital* was passed by Decreto 315 of 15 August 2006 and modified by Decreto 040 of 2008. The full title translates most directly as the *Bogotá Master Plan for the Supply of Food and Food Security*; normally it is translated more simply as the *Bogotá Food Supply Master Plan*.

SDDE. The *Secretaría Distrital de Desarrollo Económico* or the *Bogotá Secretary for Economic Development*.

Save the Children. A major international humanitarian organization dedicated to protecting and promoting the rights of children, including and especially by way of programmes in health, nutrition, hunger and livelihoods.

SNAP. The United States's federally administered *Supplemental Nutrition Assistance Program*, formerly known as the *Food Stamp Program*, it disburses food-purchasing assistance to low-income citizens. SNAP benefits are currently distributed using EBT. *See also EBT*.

TLC. The *Tratado de Libre Comercio entre Colombia y Estados Unidos*, known in English as the *United States-Colombia Trade Promotion Agreement (CTPA)*, is a bilateral free trade agreement entering into effect in 2012.

USDA. *United States Department of Agriculture*.

WFP. *United Nations World Food Programme*.

Appendix B
Principal data sources

Within each case study, three methods of data access were used to generate a holistic, triangulated vision of food security discourse and practice:

- Documents revealing dominant food security discourses, including:
  - Government plans, programmes, statements, reports, presentations, campaign materials, and disseminating publications
  - Evaluations and analyses performed by research institutions
  - NGO and advocacy publications
  - Media treatments of food security-related topics
- Semi-structured interviews with individuals who participated in, or whose organizations participated in, the material and discursive construction of the urban food systems and food security in the two cases. These included informants from several sectors, including from:
  - Government bodies
  - Research institutes
  - Community organizations
- Participant observation.

Documents accessed:

The documentary analysis proved the most substantive analysis method of the three. It included the examination of over 200 documents regarding NYC and over 300 regarding Bogotá; key documents are described in the text of this dissertation with full entries in the bibliography.

Several websites and forums were also regularly monitored (and supplemented by their newsfeeds and listservs) for developments in food security discourse in international, national and local contexts. These include:

International interest:

- Committee on World Food Security (CFS): http://www.fao.org/cfs/cfs-home/en/
- Food for the cities initiative (FAO): http://www.fao.org/fcit/fcit-home/en/
- United Nations Special Rapporteur on the Right to Food (SRRTF) http://www.srfood.org/
- Right to Food Knowledge Centre (FAO): http://www.fao.org/righttofood/right-to-food-home/en/
- United Nations Standing Committee on Nutrition http://www.unscn.org/
- Global Forum on Food and Nutrition Security (FAO): http://www.fao.org/fsnforum/

New York City

- PlaNYC home http://www.nyc.gov/html/planyc/html/home/home.shtml
- New York City Food Policy Center at Hunter College http://nycfoodpolicy.org/
- New York City Office of the Food Policy Director http://www.nyc.gov/html/nycfood/html/home/home.shtml
- Food security in the United States (U.S. Department of Agriculture Economic Research Service) (http://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us.aspx)
- New York Times www.nytimes.com
- National Public Radio www.npr.org

Bogotá

- Alcaldía Mayor de Bogotá http://www.bogota.gov.co/
- Bogotá Humana (Alcaldía Mayor de Bogotá) http://www.bogotahumana.gov.co/
- Alimenta Bogotá (Observatorio de Abastecimiento de Bogotá) http://www.alimentabogota.gov.co/
- El Tiempo (newspaper) www.eltiempo.com
- El Espectador (newspaper) www.elespectador.com

Interviews

I located informants by attempting to identify (through documentary, media and human sources) knowledgeable, high-ranking representatives of the key bodies participant in urban food security policy formulation and implementation and subsequently by employing a snowball technique. In particular, established contacts among staff at New York SchoolFood, the New School and School Food FOCUS (in New York City), and among staff at WFP, FAO and the Universidad de los Andes (in Bogotá) provided entry points for data access.

I performed 18 semi-formal interviews in New York City and 19 in Bogotá:

Sector	New York City	Bogotá
Government	• Department of Health (1) • Department of School Meals (1) • Department of Sustainability (1) • Office of the Food Policy Coordinator (1)	• Department of Economic Development (2) • Department of Health (1) • Chapinero locality council member (2) • Comedor staff (3) • Food security programming consultant (1)
Research	• New York City Food Policy Center (1) • City University of New York, School of Public Health (1) • The New School, Food Studies Program (2)	• Universidad Rosario (2) • Universidad Javeriana (1)
Community	• Local community food coalition leaders (3) • Hunger activist (1) • NYC public school principal (1) • Food poverty activists (3) • International NGO leaders (2)	• Urban agriculture leaders (3) • Right to Food leader (1) • Social worker (1) • Private sector food system operator (2)

In addition to these core interviews that served as primary data sources, I also performed informal interviews when occasions presented (for example, during episodes of participant observation).

Appendix C
Photos

Street food in Bogotá. Freshly squeezed fruit juices are one street food option in Bogotá perceived by consumers as ‘healthful’.

Street food in Bogotá. Local fast food restaurants are also abundant, and not altogether new: the banner at this pizza and burger joint boasts that it has been in service since 1978.

Street food in Bogotá. Industrially processed snacks such as crisps are a ubiquitous feature of Bogotá’s street food scene.

Street food in Bogotá. One example of 'traditional' bogotano street food is this preparation of coconut: it is deep fried and then thickly coated with a syrupy, molasses-like layer of sugar.

Street food in Bogotá. International fast food chains offer abundant takeaway options in storefronts that blend seamlessly into Bogota's lively street food culture.

Street food in Bogotá. Beer, liquor and other alcoholic drinks are also readily available on Bogota's streets – in both modern and more traditional forms. In addition to outlets similar to North American liquor stores (left), *chicha* (fermented corn drink) is sold roadside, for a (walking or driving) take-away (right).

9. *Foodways*. Among the evidence of 'colonial' influence upon the bogotano food culture is an abundance of highly refined foods. Such is the popularity of bread that this by now often takes the place of more traditional foods (such as corn-based *arepas*, for example) in homes – and this despite its higher cost. Likewise, such is the esteemed legacy of *white* – refined – bread in particular that whole-grain breads are most often unavailable in stores.

10. *Foodways*. This size of this bag of sugar (5 kg) on offer in a center-of-Bogota supermarket makes manifest the great extent to which sugar is consumed in Colombian homes.

22. *The Bogotá food system*. Paloquemao is Bogotá's central wholesale market. (Photo Credit: Bogotá Divina 2013)

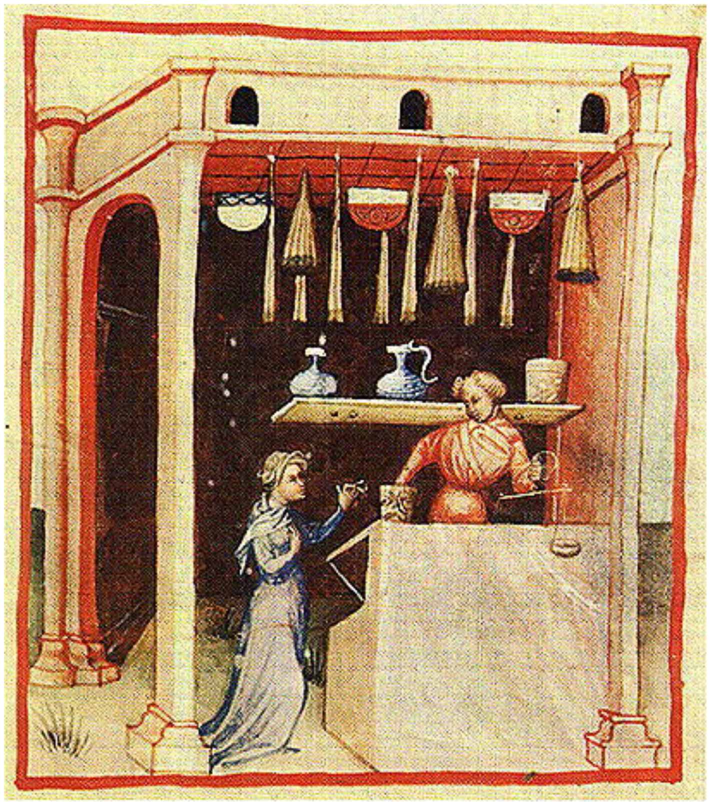
23. *The Bogotá food system*. This vendor sells fruit at one of Bogotá's *plazas de mercado*, the fixed, covered markets spread throughout Bogotá's neighbourhoods. (Photo Credit: NotiBogotá 2014).

11. *Foodways*. The *bandeja paisa* (*the paisa platter*) is the semi-official national Colombian dish; it typically consists of beans (cooked with pork), rice, ground beef, chicharrones, fried egg, fried plantains, chorizo, black sausage, hogao sauce, an arepa, tomato slices, and avocado, and is accompanied by mazamorra (a fermented corn drink) with milk and panela (though these can be varied according to region or preference. This interesting portrayal, though not particularly accurate in its report of macronutrient content, is extremely interesting for its discursive representation of the dish. It advertises to the reader that, since it comprises many different items, the bandeja paisa 'offers a wide spectrum of nutritional benefits, benefitting the body as a whole, and helping the body to develop, grow and strengthen'. Meanwhile, in the nutritional table, it reports that all the meats commonly serve 'to reduce cholesterol levels', and the fried plantain is good for 'treating high blood pressure' and 'losing weight'.
(Photo credit: Sabor & Sazón 2012)

12. *Foodways*. Panela is the boiled, evaporated juice of cane sugar and is tremendously popular in Colombia. Sugar cane cultivation occupies approximately a tenth of all permanent cropland in Colombia, and Colombians are the largest consumers per capita of sugar cane products in the world with an average annual consumption of 34.2 kg per capita and an average dedication of household food expenditure ranging from 2% (overall) to 9% (in the lowest income strata). Its sociocultural integration is similarly extensive; there are, for example, panela fairs and festivals, and even a yearly 'Miss Panela' pageant. Most interestingly, from a holistic food security perspective, is that it has also entered the food-health mythology as a health-promoting product (at least in the eyes of many).
(Photo credits: Alcaldía de San Agustín 2006; Red Noticias 2014; Siojo 2010; Amia 2011; Fedepanela 2012).

13. *Colombian gastronomy*. This *sancocho* is one example of a hearty Colombian soup.
(Photo Credit: Dinho 2013)

14. *Colombian gastronomy*. The Colombian arepa, a corn-based, griddle-cooked, flat 'bread', is a popular food on streets and in homes. *Arepas* vary greatly by region and can be served simply or with any variety of fillings.
(Photo Credits: Oxnotes 2012; De Turismo por Antioquía 2014; Recetas de comida colombiana 2010)



XLVIII. Sugar
(Cucharum)
Nature: Warm in the first degree, humid in the second.
Optimum: The white, clear kind.
Usefulness: It purifies the body, is good for the chest, the kidneys, and the bladder.
Dangers: It causes thirst and moves bilous humors.
Neutralization of the Dangers: With sour pomegranates.
Effects: Produces blood that is not bad. It is good for all temperaments, at all ages, in every season and region.
From the Tacuinum of Vienna
(late 14th or early 15th Century)

15. *Food-health mythologies*. The depiction and reporting of one medieval European *truth*, that relating to the nature and quality of sugar – and its marked contrast with the reigning *truth* – readily demonstrates the constructed nature of food-health mythologies. (Photo Credit: Matterer 1997)

16. *Barrios de invasión or barrios informales*. Theses several photos show scenes in one of Bogotá's *barrios de invasion,* informal neighborhoods, built during the past several decades on the slopes of the hills surrounding the city centre.

(Photo 3 Credit: Sendoa Echanove 2004)

17. *The Right to Food*. Nearly all of Bogotá's governmental efforts on food security articulates a theme of rights. Here, a presentation proclaims, 'Constructing a City of Rights', and a similar poster rallies, 'The Right to Food! The Right to Food and Nutrition Security!'
(Photo Credits: Alcaldía Mayor de Bogotá 2011; Alcaldía Mayor de Bogotá 2012h)

18. *NYC and the food-health nexus*. NYC's public health efforts have been considerable. These posters were issued as part of the DOHMH's various campaigns. Note that the last poster is in Spanish, intended to reach the city's large Latin American population.
(Photo credits: DOHMH 2010, 2009a, 2012, ibid.)

19. *NYC and the food-health nexus*. Mayor Bloomberg's public health efforts have earned him the label 'Nanny Bloomberg' by conservative opponents who contest his interventionism. This full-page New York Times ad proclaims, 'You only *thought* you lived in the land of the free'. (Photo Credit: Center for Consumer Freedom 2012)

NYC street food. Emblematic offerings on NYC's streets include hot dogs, pretzels, and pizza.
(Photo Credits: eGullet Society Staff Emeritus 2011; Rotari 2010; New York Street Food 2011)

The public plate. These posters advertise NYC's aggressive programme offering free summer meals to any child aged 18 or younger – without need for documentation of either age or legal status – and testify to the great cultural diversity inherent to NYC's food security challenge with its text in ten different languages.
(Photo Credits: SchoolFood 2012)

Appendix D
Publications

Two publications resulted from this research, and I include them here as complementary materials. The abstracts here are followed by copies of the published articles; note that some formatting changes were unavoidable due to the different formatting requirements imposed by the two publishers.

Ashe, L.M., and R. Sonnino. 2013a. At the crossroads: New paradigms of food security, public health nutrition and school food. *Public Health Nutrition* 16 (6):1020-1027.

Key words: school food, school meals, food movement, framing, alternative food, food security

Abstract: In the context of a New Food Equation marked by critical concerns for food system security and sustainability, efforts to reform food systems have emerged, expanded and multiplied worldwide. These efforts have frequently been referred to collectively, in both popular and academic contexts, as a food movement, but such status remains questionable: the extreme heterogeneity and considerable dispersion among various food reform interests have made it difficult to generate collective identity and collective action. If a food movement exists, then, it is weak; and it is weak because it is disparate. This, of course, implies that strengthening the food movement – and augmenting its potential for efficacy – lies in finding opportunities for convergence among diverse movement participants and organizations. We examine one context, that of New York City school food reform, which suggests particular promise as a platform not only for intra-movement coalescence but also for extra-movement alliance-building.

Ashe, L.M., and R. Sonnino. 2013b. Convergence in diversity: New York City school food and the future of the food movement. *International Planning Studies*18 (1):61-77.

Key words: Food security, school food, ecological public health

Abstract: Public health nutrition sits at the nexus of a global crisis in food, environmental, and health systems that has generated – along with numerous other problems – an urgent and changing problem of food insecurity. The 'new' food insecurity, however, is different from the old: it is bimodal, encompassing issues of both under- and over-consumption, hunger and obesity, quantity and quality; it is has assumed a decidedly urban dimension; and it implicates rich and poor countries alike. The complexity of the expressions of this challenge requires new approaches to public health nutrition and food policy that privilege systemic, structural, and environmental factors over individual and mechanistic ones. In this context, the paper argues that school food systems rise with buoyant potential as promising intervention sites: they are poised to address both modes of the food security crisis; integrate systemic, structural, and environmental with behavioural approaches; and comprise far-reaching, system-wide efforts that influence the wider functioning of the food system. Based on a discussion of Bogotá and other pioneering policies that explicitly aim to create a broader food system with the long-term foundations for good public health and food security, the paper suggests a new research and action agenda that gives special attention to school food in urban contexts.

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Convergence in Diversity: New York City School Food and the Future of the Food Movement

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Convergence in Diversity: New York City School Food and the Future of the Food Movement

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ABSTRACT In the context of a global food system that has given rise to widespread concerns for food security and sustainability, reformative efforts have emerged, expanded and multiplied worldwide. To enhance understanding of the multi-faceted nature of this food movement and its scope for convergence and consolidation, in this article we propose frame alignment and alliance-building as a theoretical and analytical framework. Using New York City as a case study, we explore how school food reform may act as a particularly powerful platform for coalescing the interests and goals of diverse food system actors. We conclude with a call to interrogate school food and other reform activities with specific attention to the opportunities they pose for finding 'convergence in diversity' — in other words, for aligning the diverse and often fragmented efforts of the 'food movement' around an integrated and shared agenda with heightened potential for impact.

Burgeoning recent concern for food security and sustainability has produced a disciplinarily expansive and expanding academic literature, a wide and animated popular debate, and a notable, if still nascent, trail of political and social reforms (e.g. among many, Ingram, Erick- sen, and Liverman 2010; Lang 2010; Morgan and Sonnino 2010). This has been integrated and complemented by a mobilization of diverse and frequently dispersed activities — often referred to, in their collectivity and with varying degrees of intention and rigour, as a food movement — that aim to 'remake' food systems worldwide (e.g. Allen 2004). Though the extraordinary breadth of these reform efforts testifies to their wide appeal, the lack of cohe- siveness between them limits their potential for scaling-up — and, consequently, their capacity to redress some of the shortcomings of the conventional food system.

In this article, we explore the possibility for finding 'convergence in diversity' within the food movement, using a case study of New York City (NYC) school food reform — which, as we will argue, provides an excellent context to examine the scope for coalescing the alternative food movement, for two reasons. First, the school food system

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implicates the entirety of the food chain, from production to disposal, and this makes it an ideal platform through which a range of food reform actors can pursue their goals. Second, in practice, school food reforms in different contexts have addressed diverse grievances and have generated a range of sustainable development benefits (Morgan and Sonnino 2008). In this sense, school food reform embodies and integrates a concern for the main issues that have thus far framed the agenda of the food movement — namely, hunger, public health, ecological integrity and re-localization.

In this paper, we propose frame alignment and alliance-building as a theoretical frame- work for understanding the multi-faceted nature of the food movement and its scope for convergence and consolidation. Using NYC as a case study, we explore how school food reform may act as a platform for coalescing the interests and goals of diverse food system actors. We conclude with a call to interrogate school food and other reform activi- ties with specific attention to the opportunities they pose for finding 'convergence in diver- sity' — i.e. for aligning the very heterogeneous and fragmented activities of the food movement around an integrated and shared agenda that can create a real alternative to the conventional food system.

The Global Context: Food System Crisis and the Emergence of a Diverse Food Movement

Even a cursory glance at the statistics reveals a food system fraught with dramatic human inequity and ecological imbalance. About 925 million people are undernourished (FAO 2010), another billion and a half are overweight or obese, and non-communicable diseases now cause 'more deaths than all other causes combined' (United Nations General Assem- bly 2011, 1) together comprise a 'new food insecurity' that affects one third of the world's population (Ashe and Sonnino 2012). Neither is the crisis isolated to poor countries: in the USA, levels of households who were food insecure reached 14.5% in 2010 (Coleman- Jensen et al. 2011), at the same time that over one in three adults were obese (CDC 2011). In addition, 30% of greenhouse gases emitted globally are attributable to the food system (Foresight 2011, 28), and the effects of climate change are expected to lead to increased incidence of hunger and malnutrition, especially in poor countries and among poor groups within countries (Pachauri and Reisinger 2007).

Growing recognition of a food system (and, at more discrete levels of analysis, of food systems) in crisis has been accompanied by the topic's rise on all political and social agendas — including those of the conventional food system itself, which has proposed sol- utions of its own (in synthesis, a new 'Green Revolution' in low and middle-income countries and a combination of 'sustainable intensification' and 'corporate social respon- sibility' objectives in high-income nations) (e.g. Marsden 2011; Spence and Bourlakis 2009). By and large, since the 1960s, there has been a multiplication and escalation of calls for more radical activities aimed at changing the food system in a much more funda- mental and systemic way. Popularly, these efforts are often referred to, both individually and collectively, as alternative food movement(s). Recent bookshelf titles and newspaper headlines might sufficiently illustrate the character of such framing: in the past decade, for example, we have seen, among others, Food Movements Unite! (Holt Giménez and Amin 2011), The Urban Food Revolution (Ladner 2011), The Slow Food Revolution (Petrini and Padovani 2006), The School Food Revolution (Morgan and Sonnino 2008) and 'The Food Movement, Rising' (Pollan 2010).

In general, scholars recognize this flourishing of food activism, which has plainly entered 'into the mainstream of advocacy for social change' (Nestle and McIntosh 2010, 162). However, there is a growing debate about whether this activity constitutes a genuine social movement and whether or not it holds the potential to generate meaningful and significant change. The central doubts lie around whether the collection of reform activities taking place at different local, national and international scales, and targeting different aspects of the food system, is sufficiently conjoined and cohesive to constitute a veritable alternative food movement, and whether or not it wields sufficient power to gen- erate significant reforms in the face of a dominant food system that is powerfully entrenched in neoliberal legacy (e.g. Holt Giménez and Shattuck 2011).

The highly multivocal and internally variegated nature of this reformative context has been the focus of much academic research. The food system intersects with many aspects of the human experience (e.g. Lang, Barling, and Caraher 2009, 23 – 26), and so too do the efforts to reform it. In considering the different constituent interests pursued by food acti- vists, researchers, like their civil society counterparts, have often referred to these smaller agglomerations of activity as 'movements'. Work has examined, among others, various aspects of the Slow Food movement (Germov, Williams, and Freij 2011; Hayes-Conroy and Hayes-Conroy 2010; Pietrykowski 2004; Schneider 2008); the food sovereignty movement (Holt Giménez and Shattuck 2011; Martinez-Torres and Rosset 2010; Patel 2009); the local food movement (DeLind 2006, 2011; Halweil 2002; Starr 2010); the organic movement (Lockie and Halpin 2005; Reed 2009); the food democracy and com- munity food security movements (Allen 1999; Hassanein 2003; Johnston, Biro, and MacKendrick 2009); the food security movement (Mooney and Hunt 2009); the farm- to-school movement (Bagdonis, Hinrichs, and Schafft 2009); the food justice movement (Freudenberg, McDonough, and Tsui 2011; Levkoe 2006; Wekerle 2004); and the fair trade and values-based labelling movements (Barham 2002; Goodman 2004; Raynolds 2000).

Some scholars see in this collection of diversely interested reform activity a movement that is more or less coalesced (Holt Giménez and Shattuck 2011).[1] Among the more opti- mistic observers is Morgan (2009, 343), who asserts that 'food planning, in its broadest sense, is arguably one of the most important social movements of the early twenty-first century in the global north'. Pothukuchi (2009, 350), too, stresses ambitious levels of coalescence and potential for impact rather than impotence-rendering dispersion, saying that 'heretofore disparate groups, related, for example, to the increasingly widespread use of toxic chemicals in agriculture, hunger, food safety, and rural distress' have 'come together into a broad-based, multidisciplinary movement of sustainable, local food systems, and as an integrated solution to more systemic problems related to corporate concentration, global warming, pollution, ecological destruction, obesity and food inse- curity'. From a food regimes perspective, Friedmann (2005) sustains the fundamental importance of agri-food social movements historically as the engines responsible for regime crises and transitions.

Other scholars, however, have stressed how the diversity within the food movement can facilitate factionalism and limit its capacity for unified identity and action. As Allen (2004, 209) acknowledges, 'groups working in isolation or on particular alternatives are unlikely to muster sufficient influence to drive significant change'. For these researchers, although the different movement participants share 'a general sense of being on the same side of the social conflict over food and agriculture' (Hassanein 2003, 78) and the same general

grievance (that something important is wrong with the contemporary agri-food system), they vary greatly in terms of their value sets, prognoses and action imperatives. This diver- sity bears not only upon the taxonomically interesting question of how to conceptualize food reform activity but also upon more practically relevant questions regarding its poten- tial for efficacy in both the specific (e.g. promoting organic agriculture) and in the general (i.e. 're-making' the food system more or less in toto).

The food movement's diversity is not, of course, an unredeemed handicap: indeed, it is precisely this aspect that endows it with appeal to such diverse publics. The different con- stituent interests and organizations 'address specific problems and thereby fill different functions within the movement', allow people to 'participate in different ways', and foster an internal diversity that lends the broader movement 'an essential vitality that can lead to new insights and practices' (Hassanein 2003, 81). Even authors pessimistic about the possibilities for efficacious reform recognize in the movement's diversity a par- ticular opportunity for building alliances with broad base and wide appeal (Holt Giménez and Shattuck 2011). Indeed, some instances of coalition and alliance do exist, as in the example of single food reform organizations with multiple work strands (such as Sustain, the UK's 'alliance for better food and farming') and in formalized platforms such as food policy councils.[2] Nonetheless, scholars regard the food movement on the whole as heterogeneous and dispersive to its detraction, and there remains a challenge to build alliance, 'develop coalitions among various groups' (Hassanein 2003, 77) and realize the coherence ultimately needed for movement consolidation.

The debate over the nature of the food movement is much more than theoretical specu- lation. As Holt Giménez and Shattuck (2011) assert, ending hunger — and the other fla- grancies associated with the dysfunction of the dominant corporate food system — would require a genuine regime change, which implicates a strengthened and more efficacious food movement. This, in turn, requires building 'convergence within the movement's diversity' (136; cf. Amīn and Membrez 2008)— or, in other words, generating an inclusive collective identity that captures, collects and expands upon (but does not compromise) the multiple values and identities of the constituent interests and jointly engages diverse par- ticipants in the pursuit of common outcomes. Indeed, collective identity is a precursor for collective action, which 'cannot occur in the absence of a "we" characterized by common traits and a specific solidarity' (Della Porta and Diani 2006, 94). The food movement's capacity to achieve its goals, then, will depend, at least in part, on finding ways for its par- ticipants to recognize common values and establish a shared 'sense of "we-ness" or "one- ness"' (Cross and Snow 2011, 528). The project, which has thus far proven challenging, is ultimately likely to be the defining factor in determining the potential scope of the food movement for scaling up and, consequently, for providing a real and credible alternative to the conventional food system.

Understanding Convergence in Diversity: The Research Approach

The concepts of frame alignment and alliance-building, borrowed from social movements theory, offer a helpful theoretical framework for addressing the food movement's need to find 'convergence in diversity' and, more broadly, for understanding its potential to effect food system reform. With regard to the first concept, the process of constructing meaning is pivotal for generating action, which emanates from a particular way of interpreting a context and constructing from it a grievance and a motivation. Inasmuch as collective

action reflects a shared way of doing this, movement coalescence depends upon the exploitation of opportunities for integrating and harmonizing the frames employed by various participants. In this context, a frame can be defined as a 'schemata of interpret- ation' that enables individuals to 'locate, perceive, identify, and label' occurrences and experiences (Goffman 1974, 21) — 'an angle or a perspective on a problem' (Oliver and Johnston 2000, 18).

The notion of frame alignment can be used to understand how this process (and hence how movement convergence and coalescence) happens. Snow et al. (1986, 464) define this alignment as 'the linkage of individual and social movement organizations [SMOs] inter- pretative orientations, such that some set of individual interests, values and beliefs and SMO activities, goals and ideology are congruent and complementary', and they identify four specific frame alignment processes: frame bridging ('the linkage of two or more ideo- logically congruent but structurally unconnected frames regarding a particular issue or problem', either at the individual or organizational level); frame extension (the encom- passing of 'interests or points of view that are incidental to [an MO's] primary objectives but of considerable salience to potential adherents' so as to enlarge the adherent base); frame amplification ('the clarification and invigoration of an interpretive frame', associ- ated with an intensification of values or beliefs); and frame transformation (the nurturing of new values and the jettisoning of old ones) (Snow et al. 1986, 467 – 470). In other words, frame alignment describes how movements strengthen the values and action imperatives of their adherents and constituents, attract new adherents, turn adherents into constituents, integrate with other movements, and ultimately generate collective action. Within the het- erogeneity of the food movement, frame alignment serves as a useful construct for under- standing how various constituent interests and movements expand to better integrate the values and objectives of other constituents and movements, wage actions that are more broadly 'collective', and mutually enhance opportunities for success.

There is a very small recent literature attending to the important role that framing plays in constructing the various identities, power relationships and alliances at work in the agri- food reform dynamic (Bagdonis, Hinrichs, and Schafft 2009; Fairbairn 2012; Mooney and Hunt 2009). The scarcity of this work is surprising in light of the critical role that identity construction plays in movement mobilization and outcome, and a better understanding of the diverse frames used within the food movement, as well as of the opportunities for and realities of frame alignment among them, appears a critical step in capturing — and perhaps in augmenting — the movement's potential to achieve the broad food system reforms for which it aims.

At the same time, both resource mobilization and political process approaches to social movements emphasize the importance of political opportunity structure as determinant to a movement's success, and this emphasizes the role of political alliance-building (Della Porta and Diani 2006, 210 – 213). As Allen (2004) summarizes, 'for some analysts, the power of social movements is directly related to how well they are able to engage with and integrate into traditional institutions' (52). In the same vein, then, that it is useful to more carefully examine the opportunities for intra-movement frame alliance, it is similarly instructive to consider those for extra-movement alliance-building.

In the rest of the paper, we will apply a theoretical framework centred around the con- cepts of frame-alignment and alliance-building to the analysis of NYC's school food system, which represents a significant platform upon which many diverse food reform frames co-exist and act, both separately and jointly. Specifically, we have selected for

our analysis four frames (hunger, public health, ecological integrity and relocalization) that have guided (individually or collectively) school food reform initiatives around the world (Morgan and Sonnino 2008) and that, in broad terms, effectively encapsulate the main interests of the food movement.[3]

School Food Reform as a Platform for 'Convergence in Diversity': The Case of NYC

As Poppendieck describes it, school food is 'a kind of intersection, a meeting place, of skilled and motivated change agents with a whole host of worthwhile agendas' (Poppen- dieck 2010, 6). These agendas do not simply meet; however, they mature and evolve in response to their interaction. In proffering opportunities for the constructive mingling of movement participants and the diverse frames they employ, school food creates scope for frame alignment and, for this reason, it represents an excellent research context to explore the potential for coalescing and consolidating the food movement.

NYC is an excellent context to examine the breadth of interests embodied in the food movement and uncover its potential for establishing a shared agenda that, as mentioned above, may be crucial to enhancing the capacity of the food movement to offer an alterna- tive to the dominant conventional system. Indeed, New York is a quintessential example of the food crisis's globally implicative (and newly urban) character. In many ways, the city is an icon of wealth, power and capitalist triumph. At the same time, however, New York is also a place rife with poverty and deprivation, and the dysfunction and inequity evident in the city's food system are compelling:

- Forty-seven per cent of households with children face challenges in affording food (Food Bank for New York City 2009);
- Eighty per cent of school meals recipients are poor enough to qualify for free or reduced price meals (Kwan, Mancinelli, and Freudenberg 2010);
- Fifty-seven per cent of adults are overweight or obese; 21% of elementary schoolchil- dren are obese, and 18% more are overweight (Egger et al. 2009, 1–2);
- Three million New Yorkers live in areas in high need of access to fresh food retail outlets; in some neighbourhoods, 20–25% of people report eating no fruits or vegetables at all on a given day (New York City Council 2010, 52).

For its part, the NYC 'food movement' is by all semblances a microcosm of larger national and global ones. NYC is teeming with food reform efforts, and this activity, as elsewhere, is highly diverse and variegated. Freudenberg, McDonough, and Tsui (2011, 633) characterize it as an 'emerging social movement' and maintain that 'only future events will tell' if it consolidates sufficiently to become 'a full-fledged movement'. It is the movement's extreme heterogeneity that gives them pause, and their description of it is telling:

> New York City's food movement is similarly diverse. It includes parents who want healthier school food for their children; chefs trying to prepare healthier and more local foods; churchgoers for whom food charity and justice manifest their faith; immigrants trying to sustain familiar, sometimes healthier food practices; food coop members longing for community as well as fresh food; food store workers

> wanting to earn a living wage while making healthy and affordable food more avail- able; residents of the city's poor neighbourhoods who want better food choices in their communities; staff and volunteers at 1200 food pantries and soup kitchens con- cerned about food insecurity; health professionals and researchers worried about epidemics of diabetes and obesity and the growing burden of food-related chronic diseases; elected officials; agency staff, and policy makers who want to seize oppor- tunities to improve food; and gardeners and farmers who like to get their hands in the dirt and to eat the food they and their neighbors grow. These disparate individuals and the organizations they influence constitute an amalgam of forces determined to change the city's food environments and food choices. Some are connected to regional, statewide, national, and international efforts to change food policies. (Freu- denberg, McDonough, and Tsui 2011, 625)

Thus the collection of food reform activity in NYC is (as at global and national levels) large and highly varied, and their interactions reflect the 'tensions and power dynamics' (Freudenberg, McDonough, and Tsui 2011, 625) that might be expected to derive from such multiplicity: 'while most participants share [common] goals, they do not necessarily agree on priorities and strategies', and the participants 'have tensions and conflicts as well as varying levels of political and financial power' (Freudenberg, McDonough, and Tsui
2011, 626). In this context of abundant but differentiated initiatives, reform to the city's school food system stands as a platform upon which there is evidence of heightened engagement and convergence among actors. Given the food movement's challenge, both generally or globally and locally, to find such convergence, it is worth further inves- tigating the nature of this platform.

The NYC school food programme is massive; serving 860,000 meals per day across
1600 schools, it represents the largest American public food budget after that of the US Military. Two pieces of national legislation, the National School Lunch Act and the Child Nutrition Act, provide the fundamental structure and the funding paradigm within which the NYC school food system operates. Through the NSLP, the federal government reimburses local districts, including NYC, for each meal they serve, with higher reimbur- sement levels for the free- and reduced-price ones they provide to needy children. It also supplies additional foods to districts from United States Department of Agriculture Foods (still widely referred to by its former label, the 'Commodity Program'), which was designed to support US agricultural production by guaranteeing minimum levels of gov- ernment procurement for certain products.

Like the rest of the country, New York has experienced a progressive deterioration of its school food quality in the last decades, linked to policies that favoured the commercializa- tion of the service and the adoption of competitive provisioning models, on the one hand, and federal budget cuts, on the other, which turned cost-cutting school districts towards buying and providing mostly prepared and highly processed items, convenience foods, and United States Department of Agriculture (USDA)-donated commodities, all more characterized by their deleterious effects on health than by their nutritional benefits (Morgan and Sonnino 2010). At the same time, 'competitive foods' have been introduced into schools via 'pouring rights' contracts with soft drink companies, vending machines and fast food outlets in school cafeterias, all of which created within schools an important
'conflict of interest between health and profit' (Simon 2006, 222).

Though the city itself is beholden, in many ways, to national legislation and funding that constrain its capacity to innovate, it has recently leveraged some of its municipal powers to introduce hunger-reducing and health-promoting changes to the school food programme. For example, it has improved the nutritional quality of meals served (by setting universally heightened nutrition standards and by introducing salad bars) and improved student access and participation (by introducing a universal free breakfast programme and moving to swipe-card payment systems) (Morgan and Sonnino 2008; Sonnino, Spayde, and Ashe In press). Critics charge, however, that the state of the school food programme remains far from ideal, and it is this that drives the large number of school food reform efforts of present interest. In this context, what is most pertinent about the NYC school food system is that it serves as a platform for action and an engagement ground for a large diver- sity of food activists and reformist organizations. Here we will depict a subset of this mul- tiplicity to illustrate how the diverse interests that comprise the broader food movement find in the school food system a common ground for engagement. For the purpose of our analysis, we have categorized the diversity of the food movement according to four interests or 'frames' that reflect and integrate its manifold values and action imperatives. These include:

- Hunger: The hunger interest reflects a set of values and beliefs fundamental to much food reform activity. Friedmann and McNair (2008, 425) recognize it as 'the oldest and most established part of the food movement', and it is the first major collective action frame that Mooney and Hunt (2009) identify with respect to the highly contested ownership of the food security concept. In the USA, hunger figures centrally in food justice and food democracy movements, which emphasize, among other factors, social inequalities in food access and quality.
- Public health: The public health interest is another with strong purchase in the broad food movement; it is often depicted reductively — especially in the school food context — as an anti-obesity project. And indeed, the skyrocketing incidence of over- weight and obesity has led to global alarm regarding expected long-term consequences related to non-communicable disease, poor life quality and rising health care costs (e.g. CDC 2011; WHO 2004).
- Ecological integrity: Ecological integrity is another among the most prominent values driving food system reform (e.g. Allen 2004; Friedmann 2005, 249), given the negative (and widely discussed) impacts that the conventional food sector has had on both rural and urban environments — linked to intensive use of chemicals, air miles and an exces- sive pressure on water, soil and ecological resources (e.g. Pretty et al. 2000). The quest for less intensive and more ecologically benign food production methods has led to a widespread support for the organic movement.
- Re-localization: One of the most contemporary topical debates in agri-food scholarship attends to the contested beneficence of food system localization (Allen 2010; Born and Purcell 2006; Hinrichs 2003; Morgan 2010), which, in practice, has nonetheless generated widespread enthusiasm and has driven much food reform activity (DeLind 2011; Starr 2010). In the context of school food, the relocalization interest is seen in efforts to connect procurement practices with local agricultural production and to put the school food system into service as an engine for local economic development (Sonnino 2010). It is worth observing that the boundaries between these interests are really artificial ones — largely, though not entirely, heuristic — and few of the food movement's constituent

interests (or, even more narrowly, the single organizations within them) profess a singular and exclusive objective. At a broad level, these interest categories comprise numerous MOs with related but still variegated principal objectives (the 'environmental' interest comprises, for example, an array of groups focused differently on themes ranging from organic production to polystyrene tableware); at a narrower level, many of the individual MOs themselves envelop an internal diversity of several interests (with Grow NYC, for example, deriving strong motivation for its urban agriculture projects from both environ- mental and educational interests). Thus, clearly the marriage of diverse goals is not altogether absent in the present food movement: where scholars observe weakness in the movement's dispersion, they address a question of relative rather than absolute cohe- sion or discord. Here then, we offer a brief overview of how the four prominent food movement interests identified are active via the NYC school food reform platform. Fol- lowing a sketch of these separate frames and the reform activities they execute, we turn to a discussion of how the contemporaneous presence and sometime collaboration of these various groups promote a context favourable for coalescence within the broader food movement.

Framing the Potential of School Food Reform in NYC

In the context of school food, combating hunger resonates strongly, particularly since the overwhelming majority of meal recipients are poor, and the programme's function as a social safety net is a central one. Thus, a concern for hunger grounds the work of numerous organizations mobilized around school food reform in NYC, including, for example, the Food Research and Action Center, the Community Food Security Coalition, Hunger Action Network of New York State, City Harvest, New York City Coalition Against Hunger, the BedStuy Campaign Against Hunger and the Food Bank for New York City. The main school food reform activities of these groups include advocacy for increased school lunch funding; advocacy for improvements to the nutritional quality of school meals (via national and local legislation, national and local procurement practices and provision of fresh fruits and vegetables); advocacy for the enhancement of student access to meals (via the expansion of eligibility criteria for free and reduced-price lunches, simplification of the application process and the elimination of stigmatizing canteen procedures associated with free and reduced-price lunches); and advocacy for the expansion of service provision (via school breakfasts, breakfasts-in-the-classroom, after-school snacks and dinners and summer meals).

Combating hunger is also part of a wider public health agenda that is rapidly developing through both national and municipal policy actions. Examples of recent national initiatives include improvements to the nutritional standards for school lunches and the introduction of requirements for school wellness policies, as well as government-led efforts such as First Lady Michelle Obama's Let's Move! campaign against childhood obesity. At the city governance level, it is worth remembering the NYC Department of Health's cam- paigns to promote 'healthy high school fundraisers' and discourage sugary drinks. In the context of NYC school food reform, numerous nationally and locally based MOs assume public health as a primary motivation for their activism, including HealthCorps, the Coalition for Healthy School Food, the NYC Food and Fitness Partnership, School Food FOCUS and Wellness in the Schools. A second group of MOs motivated by a more expansive set of values related to food justice identifies the poor nutritional

quality of school food as a grievance with close affinity to their concerns surrounding more generalized inequity in food access, and consequently their involvement in school food reform often assumes the prerogatives of public health; MOs of this type include WE- ACT for Environmental Justice and the Brooklyn Food Coalition. The main school food reform activities emerging from MOs motivated by a public health interest include advocacy for increased school lunch funding; advocacy for improvements to the nutri- tional quality of competitive foods sold in vending machines and school canteens; and the implementation of programmes that enhance children's competencies around food, agriculture, health, nutrition and the environment.

In the context of school food reform, the environmental interest has taken on numerous permutations related to different aspects of sustainability and environmental health — in short, ecological integrity. In NYC, the organization SOS, for example, takes its name from its focused mission to get 'Styrofoam Out of Schools'. Its efforts have thus far met with partial success, and the entirety of the city's school food system now implements 'Trayless Tuesdays', replacing (non-recyclable and toxic) polystyrene lunch trays with recyclable paper boats. Another association, NYC Green Schools, unites parents in a vision to make schools more 'sustainable' and 'green', including via school food. Numer- ous other organizations embrace environmental sustainability as a secondary goal related to and highly compatible with central motivating interests such as youth development; this is true, for example, in school garden initiatives such as GrowNYC and Edible Schoolyard, which, in addition to emphasizing the developmentally positive prospects of their projects, also incorporate a major focus on education for sustainability and organic production. Indeed, school gardens, agricultural internships, farm visits and food-integrative school curricula are envisioned as instruments for producing new knowledge and value sets amongst young consumers; instilling personal characteristics such as responsibility and leadership; and teaching specific vocational skills and competencies. These projects inte- grate well with the school food reform movement generally in the sense that they promote healthy food choices and skills; some also integrate directly with school meals provision by supplying produce to the school kitchen. In NYC, numerous MOs deriving primary motivation from an educational interest implement school-based and off-site projects around food growing, including Slow Food, Edible Schoolyard, Added Value, Green Thumb and GrowNYC. The main school food reform activities of these groups include advocacy for policy change around canteen practices (as regards materials, waste and recycling); advocacy for changes to procurement practices to favour the sourcing of more ecologically sustainable (e.g. organic) products; and the implementation of pro- grammes that educate students and involve them in sustainability-promoting activities (e.g. organic growing).

The re-localization of the food system is widely advocated in New York as elsewhere as a means to achieve the anti-hunger, public health and ecological integrity values that frame the diverse interests of the school food movement. In NYC, the district has already under- taken several reforms in this regard and now intentionally sources some products, includ- ing carrots, apples and yogurt, from within the region (Morgan and Sonnino 2010, 219). Several MOs are working to increase local sourcing. SchoolFood FOCUS (a major initiat- ive working in 33 large urban school districts nationwide, including NYC) is the most notable exemplar, and its mission well summarizes the values driving it and related efforts: it aims to assist the 'nation's largest urban districts' to wield 'their high-volume purchasing power, making more healthful, regionally sourced, sustainably produced

school food available to kids, supporting student achievement and health while benefiting farmers, regional economies, and the environment'. While it clearly espouses a multivocal set of values, the organization's procurement emphasis reveals a strong relocalization interest. The New York Agriculture in the Classroom programme is also grounded in a relocalization theme but takes a curricular, rather than procurement, approach; like other MOs that embrace local food as a subordinate objective compatible with their primary reform activities, it implements courses designed to enhance children's competen- cies around food, agriculture, environment, nutrition and health.

At the same time that NYC school food reform has involved many actors from civil society, it has also integrated political actors and institutions spanning the national, state and local levels. At the federal level, the USDA recently unveiled improved nutri- tional requirements for school meals following the 2010 passage of the Healthy, Hunger-Free Kids Act. The new standards enhance the provision of fruits, vegetables and whole grains; limit foods high in sugar, salt and fat; and set much stricter macro-nutri- ent criteria (US National Archives and Records Administration, Office of the Federal Reg- ister 2012). At the same time, USDA has taken significant measures to improve the quality of foods it makes available to schools via its entitlement system; increased the possibilities for procurement of fresh fruits and vegetables through a partnership with the Department of Defense FRESH programme (USDA 2011a); and is currently running pilot programmes in two states that will allow entitlement funds to be used in the purchase of fresh local produce (USDA 2011b). Meanwhile, a 2008 amendment to the Farm Bill makes it possible for districts to specify regional procurement preferences that link local agricultural pro- duction with school canteens — a reform especially salient for the re-localization interest (US National Archives and Records Administration, Office of the Federal Register 2011). Finally, First Lady Michelle Obama's choice to make the Let's Move! campaign against childhood obesity her keystone advocacy speaks volumes about the increased priority that the Obama administration has given to food and nutrition issues generally and to school food specifically.

In NYC, food system reform has also enjoyed a recent rise on the political agenda, though here it has been more visionary in nature than legislatively impactive and less nar- rowly focused on school food. Two reports issued by the office of Manhattan Borough Pre- sident Scott Stringer, Food in the Public Interest (2009) and FoodNYC: A Blueprint for a Sustainable Food System (2010), advocate for the entire food system to be re-considered and re-prioritized on the city's political agenda. More recently, the City Council (2010) released FoodWorks, a vision for farm-to-fork reform of the city's food system. And, in
2011, the updated mayoral strategic plan, PlaNYC, also (for the first time) included a section dedicated to food (City of New York 2011). While none of these documents con- stitutes a binding mandate for action, together they testify to the emergence and intensifi- cation of political attention to food reform issues on the municipal agenda; notably, all include school food as a featured platform for change.

At the same time that it undertakes these reforms — many prompted largely by the acti- vism of MOs such as those referred to earlier — the government is also an active partner in implementing many of the reforms advocated and led primarily by MOs. On multiple planes, its involvement reflects a context of heightened sensibility and responsiveness to the grievances and demands upheld by the food movement more generally as well as the ability of the food movement to form partnerships both within and outside of the movement.

NYC School Food Reform as a Platform for Convergence in the Food Movement

While each of the identified frames stands as a distinct narrative within the broad food movement, attributing a specific grievance to the dominant food system and defining cor- related prognoses for reform, in the context of school food reform, different actors fre- quently arrived at common objectives and consequently found it profitable to collaborate in their advocacy and implementation of projects. For example, the hunger and public health interests, while acting from different frames, in fact conduct very similar reform campaigns that centre on advocacy for increased school lunch funding. Similarly, the reform activities variously emerging from the public health and ecological integrity frames commonly include the implementation of programmes designed to enhance children's knowledge and skills around food. And the ecological integrity and relocalization interests share an emphasis on the re-valourization of the procurement chain and the sourcing of products from non-conventional suppliers. Indeed, our brief review of the actions undertaken by MOs emerging from very different motivational frames shows much common finality, and, in practice, many reform projects and advocacy campaigns are operated jointly via intentional coalitions of diverse partners. An excellent example of this is found in Grow to Learn NYC, the city-wide school garden initiative, which involves many MOs (Edible Schoolyard, Grow NYC Greenmarket, NYC Food and Fitness Partnership, HealthCorps and Slow Food), several private funders (the Bank of America and the Mario Batali Foundation) and multiple government partners (the city's Department of Education, Department of Health, and Department of Parks and Recreation and the state's Department of Agriculture). Such opportunities for practical collaboration in common projects suggest a concomitant context of heightened possibility for frame alignment — particularly for frame bridging and extension — between move- ment groups.

Finally, at the same time that there is special potential for intra-movement alignment, there is also heightened potential for extra-movement alliance-building. As Allen (2004) summarizes, the success of the food movement is dependent upon its ability to create such political alliances: 'if social movements are to become more than ephemeral, they must become part of the fabric that organizes and mediates socials relationships, [. . .] a fabric [. . .] woven out of institutions' including, among others, education, economy and government (51). Since it is through schools that movement-advocated reforms must be achieved, school food relies upon collaboration with the state for implementation capacity. And indeed, in NYC, the government's partnership in school food reform is evident and even prominent. In some cases, this has come in the form of the institutional responses operationalized to redress grievances articulated by movement participants; for example, the district's introduction of a swipe card payment system (intended to reduce the stigma associated with taking free school lunches) effectively represents a response to hunger advocates' demands for increased student access to meals. Government partner- ship is also manifest in the many project collaborations that feature MOs as service pro- viders to schools and schoolchildren; for example, Added Value's off-site 'Seed- to- School' programme necessarily requires placement in the student curriculum and coordi- nation by school and administrative actors. Thus, to greater or lesser extent, all successful school food reform efforts require government partnership, since interventions are poss- ible only with the cooperation (and often the leadership) of the state. In effect, then, by practicing and facilitating alliances with government, the experience of NYC school

food reform offers significant potential to enhance the political opportunity of the food movement more broadly.

Final Remarks: A New Research Agenda Around Food Movement Coalescence

NYC school food reform is acting, then, as a platform for convergence in the midst of a disjointed-therefore-weak food movement. Indeed, our exploratory analysis has uncovered its potential as a point of consolidation and a moment of potentiation in the food move- ment's quest to generate reforms that are wider and more meaningful than it has thus far achieved. Interrogating the specificity of this case and querying the food movement for similar 'platforms for convergence' thus stand as promising directions of inquiry for researchers.

We might suggest that several concomitant characteristics of school food in general gives it particular power to serve in this function — and, of course, that this power is amplified when taken at the scale represented by NYC School food is distinct in several important ways from many other food system structures that have emerged more promi- nently as strategic reform points (such as urban agriculture or farmers' markets). First, it is food chain systemic. While reform strategies that target other aspects of the food system impact primarily (and sometimes exclusively) only small segments of the food chain (for example, urban agriculture addresses, at least primarily, the production link, and municipal composting, the disposal link), the school food system implicates the entirety of the food chain from production through disposal (since producers and pro- cessors must supply food; transporters must craft a delivery and distribution system of staggering complexity; children must eat; waste generated throughout the system must be disposed of; and so on). This breadth of scope means that reforms to school food can have impacts across the entire food chain, many at great distance from the school canteen, and this fact alone lends school food privileged potential as a platform for reform. More pertinent to the present analysis, however, is the concomitant fact that the school food system is relevant to reform actors with interests across the entire chain: those interested in urban agriculture and those interested in municipal composting can pursue their goals via the school food platform.

Second, school food targets a particularly sympathetic population: children (and, more- over, overwhelmingly poor children). This gives it potential appeal to a collection of sta- keholders who extend beyond the elite population that the alternative food movement has, according to many, served too exclusively (Allen 2010; Hinrichs and Barham 2007; Winne 2009) as well as to an audience not interested strictly in food per se but rather in wider issues of social justice.

Third, the school food system is state-led rather than privately led, and this lends it a uniquely strong base of potential resources, legitimacy, reach and implementation capacity (Morgan 2008; Morgan and Sonnino 2008; cf. Meadowcroft's [2007] discussion of governance for sustainable development; cf. Eckersley's [2004] discussion of the Green State). Moreover, at the same time that it creates potential for diverse actors within the food movement to discover a collective identity and to undertake collective action, it also offers this movement, and all the participants it comprises, the opportunity to forge and leverage political alliances with extra-movement actors (most importantly, perhaps, those in government). In other words, school food can serve as a platform not only for

generating convergence within the food movement, but also for constructing alliances beyond the movement collective that bolster the potential to realize its goals.

In this article, we have examined one platform with special potential for promoting intra-movement coalescence and extra-movement alliance-building. But this is not the only one. Future research might identify other platforms within the food movement that similarly generate high potential for (and perhaps high extant levels of) intra- and extra- movement alignment and partnership; reflect upon what characteristics make these act as 'convergence platforms'; and examine the extent to which such places of potential con- vergence successfully exploit their promise. These questions are at once theoretically and practically salient; indeed, whether or not the food movement is ultimately 'successful' means, broadly, nothing less impactive than the successful and just negotiation of an increasingly unsustainable global food system.

Notes

1. Curiously, even those who refer to a broadly inclusive movement use different names to describe it (e.g. the 'sustainable agri-food movement' and the 'alternative food movement'), and this too speaks to the fluidity and multiplicity that characterize the situation.
2. At the same time, of course, it might be argued that establishing a formalized organization such as Sustain or the Detroit Food Policy Council serves precisely the function of constructing a collective identity.
3. Online desk research was used to collect secondary data from the published websites and online documents of organizations participating in or advocating for school food reform in NYC; the data was then analysed according to the themes of frame alignment and alliance-building undertaken in this paper.

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At the crossroads: new paradigms of food security, public health nutrition and school food

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Abstract

Public health nutrition sits at the nexus of a global crisis in food, environmental and health systems that has generated – along with numerous other problems – an urgent and changing problem of food insecurity. The 'new' food insecurity, however, is different from the old: it is bimodal, encompassing issues of both under- and over-consumption, hunger and obesity, quantity and quality; it has assumed a decidedly urban dimension; and it implicates rich and poor countries alike. The complexity of the expressions of this challenge requires new approaches to public health nutrition and food policy that privilege systemic, structural and environmental factors over individual and mechanistic ones. In this context, the current paper argues that school food systems rise with buoyant potential as promising intervention sites: they are poised to address both modes of the food security crisis; integrate systemic, structural and environmental with behavioural approaches; and comprise far-reaching, system-wide efforts that influence the wider functioning of the food system. Based on a discussion of Bogotá and other pioneering policies that explicitly aim to create a broader food system with long- term foundations for good public health and food security, the paper suggests a new research and action agenda that gives special attention to school food in urban contexts.

Keywords
Food security
School food
Ecological public health

Public health nutrition sits at the nexus of a global crisis that involves and implicates an assembly of policy makers and researchers with widely diverse geographic, sectoral and disciplinary provenance. This, of course, is the coincident dysfunction in food, environmental and health systems that menaces human and planetary well-being with interrelated phenomena of global environmental change, environmental unsustainability and a new (bimodal) model of food insecurity[1–6]. Under a new and still unfolding scenario that has been variously labelled as the 'new food equation'[3], the 'world food equation, rewritten'[1] and the 'new fundamentals', good nutritional health is inaccessible to an enormous number of people – but in different ways. Simply put, people suffer on the one hand from hunger and undernutrition and, on the other, from obesity and diet-related disease – and, in ironic injustice, the two

problems sometimes simulta- neously afflict individual households and even persons[7]. In other words, the current nutritional health crisis is increasingly manifesting bimodally to include widespread problems of both under- and mal-consumption (with over-consumption here considered as part of the latter). Adding to this complexity, there is also a new geography of food insecurity, which has become a problem in both rich and poor countries, and all the more so in the urban contexts that increasingly define the contemporary population dynamic[3,8–10].

So far, public health nutrition scholarship has focused on two main aspects of the new world food order: the nutrition transition and the double burden, which threa- ten rich and poor countries alike with poor prospects for nutritional health and well-being[9–12]. Much less atten- tion has been devoted to the complex and interrelated dimensions of the food system that effectively build (or fail to build) the opportunities for public health. As the editors of this journal acknowledge, 'dietary recom- mendations by themselves do not address social and economic inequities'[13] – that is, the type of systemic and structural issues that hamper the achievement of better public health outcomes.

In the current paper, we focus on the emerging dynamics of the new food insecurity crisis and on its implications for public health nutritionists, who, we argue, can make a significant contribution to the defini- tion of a food system that enables, promotes and enhances broader well-being. Theoretically, this requires the adoption of a systemic approach that embraces the fullness of the food system's identity: as the editors of this journal have recognized, 'we are as much a part of the public health community as we are of the nutrition

community, with all that implies'[13]. Practically, much can be learned from an analysis of the nature and promise of intervention contexts that might structurally and sys- temically address the complex issues of the new food insecurity. In the last part of the paper, we focus on one such context: school food systems. As we argue, school meals can serve an immediately remedial role in combating both under- and mal-consumption, while at the same time holding the potential to catalyse the broader political and systemic changes needed to redress food insecurity beyond the intermediate term. In the final part of the paper, we outline a new research and policy agenda that extols the potential of school food as a reform mechanism in cities, where some of the most innovative initiatives to combat food insecurity are beginning to emerge.

Redefining public health nutrition in the new food (in-)security era

Food security, like the public health nutrition field that must address it, is assuming a new dynamic. Far from being confined to rural areas of poor countries, food insecurity is now part of a more complex geography that embraces both the global North and the global South and that has three specific demographic and nutritional characteristics. First, like the global population itself, food insecurity is increasingly urban – a phenomenon that must be understood not as (only) a problem of under- production by rural subsistence farmers but (also) as one of urban food access and use[3,7,13–16].* Second, food insecurity is increasingly an issue of both quality (mal- consumption including over-consumption) and quantity (under-consumption). Yngve et al.[13] are among few to articulate this shift precisely as such, but others have also emphasized that the same explosion of obesity and nutrition-related disease be considered alongside hunger under a more expansive rubric of food security. Lang[5], for example, suggests that the definition of food inse- curity broaden sufficiently to 'factor(s) in all diet-related ill-health, not just hunger'. Third, the globally inclusive nature of the food security challenge has thus far been inadequately addressed. The practical consequences of this intellectual failure are important to recognize, since in many ways the issue has been better addressed in the global South, where 'the analysis of food insecurity y has attached great importance to the cultural and social roles of food, emphasising autonomy, self-determination, cultural appropriateness, and other terms redolent of the social exclusion debate', themes the North has failed to appreciate to the same extent[17].

Public Health Nutrition

These shortcomings suggest that food security policy – like public health nutrition – ought to shift towards an approach that is more intentionally systemic in nature and can respond at a structural level to the changing character of the global food system. If food insecurity is not simply a problem of insufficient production – which might, given sufficient resources, be easily enough resolved – but rather relates to a complex interaction of factors that encompass the entire ecology within which 'food security' happens, then addressing food insecurity implies addressing those factors. In other words, if an ecological model for approaching public health generally has merit – particularly in the current context – then so too does an ecological model for approaching food security specifically.

Thus far, however, the public health nutrition com- munity has largely neglected the structural determinants of food security, and there are calls for it to shift atten- tion towards policy-driven forms of intervention. As Caraher and Coveney[9] state, focus should migrate 'from ''post-swallowing'' food and nutrition interventions to ''pre-swallowing'' conditions' and aim 'to make the social infrastructure conducive to healthy decisions about food'. Similarly, Lang[5] calls for improved ways to conceive of and approach food security that 'focus on entire food chains'.

Many current approaches to food security refer to the prominent FAO definition (which establishes food security 'at the individual, household, national, regional and global levels' as a situation 'when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life'[18]), often distilled into the four dimensions of food availability, access, utilization and stability[6,19–25]. These analytical dimensions prioritize key structural issues of spatial, economic and cultural access that become extremely relevant in the new multimodal food security context. Attending to the structural issues surrounding food access – particularly in urban contexts where consumers are largely separate from the productive landscape and must depend on the market for food[13,26] – leads to thorny but impor- tant theoretical questions that have largely been ignored by public health nutritionists. Indeed, predominant – even 'hegemonic'[27] – approaches to public health nutrition have emphasized mechanistic, biomedical and individualist understandings of health (which have correlated with intervention strategies based upon behaviour modification and assignation of individual responsibility) at the expense of more robust frameworks that better integrate social and structural factors[9,27,28].

Recent efforts to demand better attention to the systemic, structural and social factors that underlie nutrition and health outcomes are interrogating systems and relation- ships that are multifaceted, multifactorial and complex[29]. As Rayner[27] explains, central to this approach is the idea that the only intellectual approaches and policy strategies sufficiently capable of dealing with the complexity of the

* Indeed, this points to two major shortcomings of the thus far dominant approaches to understanding food insecurity, which have prioritized production-related problems in the food system at the expense of consumption-related ones and privileged attention to rural food security manifestations at the expense of urban ones[16].

food system are ecological ones that can address the many and multi-layered interactions between individual and environment – or, as Lang[28] states, approaches that acknowledge a 'right to be well'.

Although the concept of environmental public health (EPH) has not yet reached dominance, 'the recognition that people and the environment are the nodal points for public health are there', and some health institutions, including the US Institute of Medicine and the WHO's Commission on the Social Determinants on Health, express a de facto appreciation of it[27]. Indeed, as it has been pointed out, life science-based approaches to nutrition and health may well have their place, but
'societies are not surgeries'[28], and the 'the likely solutions
for nutrition problems lie less in unlocking biological pathways than in creating social environments that can deliver ''correct'' balance'[28]. Public health nutrition, then, must turn to the question of building and bettering such environments. School food systems, as we argue below, emerge here as a promising intervention site, given their significant links with the health of humans and the environment – the main dimensions affected by the current food security crisis.

School food at the crossroads

School food has increasingly been seen as an important tool to redress the new dynamics implicating food systems, nutrition and health. Already in 2003, Bennett summarized how school feeding policies in developing countries have been used to pursue a central goal of improving the nutritional status of schoolchildren, while also addressing important issues of attendance, enrol- ment, cognitive development and gender imbalances, and more recent work has elaborated further evidence for the same themes.* In particular, by linking agricultural development with school feeding, improving access to education and building populations' capacity for partici- patory citizenship, innovative school food programmes in developing countries are seen to enhance food security – and, en route, deliver other benefits such as enhanced livelihood opportunities, better natural resource manage- ment, higher incomes, smaller families and improved household management[30–34].

Although the empirical evidence on the developmental impacts of school feeding initiatives is quite sketchy and fragmented, together the literature identifies a wide range of benefits associated with school food reforms that can all situate within a capacious understanding of the new food security paradigm. In general, the integrality and breadth of these reforms are such that they address food security both immediately (i.e. by providing caloric sustenance to

* See Bundy et al.[30] for the most comprehensive and rigorous review of the benefits, challenges and evidence base for school feeding around the world.

undernourished children and making fresh foods available to young people living in urban food deserts) and in the longer term (i.e. by embracing young citizens' structural role in the food chain and their socio-environmental potential in promoting healthier food habits).

In low-income countries, school food interventions have been used as part of the social safety net, to combat hunger and micronutrient-related undernourishment, and to improve educational access and attainment – goals that have been pursued with some documented success in countries as diverse as Bangladesh, Cote d'Ivoire, Burundi[31], Mali, Jamaica, Pakistan and Cambodia[30], among others. Low- and middle-income countries have also used school food to address the other half of the double burden, and many, including Brazil, China, South Korea, Malaysia, Mexico, South Africa and Thailand, have created specific school-based strategies to tackle the onset of obesity and nutrition-related disease, largely through whole-school approaches designed to build a healthier food consumption culture[35]. Rich countries, too, have turned to school food to address the dynamics of the new food insecurity, and studies have examined its efficacy in relation to outcomes such as decreasing trends of over- weight[36,37] and increasing consumption of fruits and vegetables[38,39].

In this context, some multi-sectoral and multi-stakeholder efforts (such as Home-Grown School Feeding) have aimed to expand the transformative potential of school food reform through a focus on its capacity to boost local agricultural production and thus stimulate development beyond school walls[30,32]. Data show that school food can make an important contribution to the creation and stimulation of local economies. In East Ayrshire (Scotland), for example, school food reform has produced a Social Return on Investment Index (SROI) of above 6[40], meaning that, 'for every £1 invested in the initiative, over £6 of value is created in economic, social, environmental and other outcomes'[41].y Similarly, in Albania, the purchase of locally produced foods for the school feeding project has generated paid employment in food processing and additional income for local farmers and bakers[31].

Overall, there is a growing body of literature that emphasizes how school food reform is – or can be – distinct from other efforts in several important ways. First, it is food chain systemic (rather than segmental), and this endows it with power to provoke structural changes throughout the entirety of the food system, all of which can be designed to improve food security. Second, it is state-led, rather than privately led, and this gives it

y Effectively, the SROI estimates the economic value of outcomes which often fail to be appreciated for their economic benefit. In this instance, Footprint Consulting used indicators spanning environmental, economic, health and 'other' categories, including, for example, the value of new land brought into organic production; the reduction in future environ- mental costs associated with lower carbon emissions; the reduction in future health costs; and the costs needed to otherwise achieve similar reputational advantage[41].

heightened reach, legitimacy and implementation capa- city[42,43]. Third, because it targets poor children, it is positioned specifically to reach populations particularly at risk of food insecurity in both its forms of hunger and obesity[30,44–46].

In the next section, we explore this multidimensional potential of school food reform through a focus on some of the most innovative initiatives that have recently been implemented around the world. Our analysis shows that this multidimensional potential tends to express itself at its best when it is informed by a broader rights-based approach to food and health. While, in some cases, such an approach is embedded in national food cultures, in others it is emerging at the local (especially municipal) level, with cities like Bogotá taking the lead in devising school food policies that explicitly link food security with health nutrition. As we discuss in the Conclusions, for researchers and practitioners alike, this raises important questions about the pioneering role of cities in devising and implementing a renewed ecological ethics for good health and better food security.

The right to food security: Bogotá and the promise of school food

The available literature on school food systems points to the importance of the underlying vision and cultural values in shaping the developmental outcomes of reform initiatives (including ones related to nutrition). In synthesis, the most successful reforms tend to occur within a wider political and legislative context that views school food as a health and well-being, rather than a commercial, service[42]. In Japan, for example, school meals have been actively designed around the idea of using local production and local consumption as a means to stimulate children's familiarity with the local culture and food system[47]. Likewise, Italy has traditionally promoted its school food service as an integral part of children's right to education (of which local food culture is an important component) and, more generally, of consumers' right to health[48]. Brazil has also recently revolutionized its school food system by embedding it into a food security and sovereignty framework that stipulates a right to food security and obliges munici- palities to procure local produce directly from family farmers[47]. In addition to facilitating the implementation of initiatives that empower local farmers to be able to supply fresh produce, this type of approach tends to enhance civic participation in school food reform, as citizens acquire the right and the responsibility to monitor food safety and quality (as happens in both Italy and Brazil).

In the context of these national political cultures, public food reform tends to occur because of State action and support. This has been the case, for example, in Rome[48] and Belo Horizonte[49]. In other countries, however, reforms

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are occurring despite the lack of a supportive national context – a trend that brings to the fore the role and potential of municipal governments as food system inno- vators in the new food security era. One of the most illustrative and pioneering examples in this sense is that of Bogotá, one of the first cities that has situated schools meals with intention and specificity as part of a food security project that is based on notions of rights, justice and equity. Bogotá is the second-to-most inequitable city in South America; its current Gini coefficient* of 0?61 reflects not only gross actual income inequality but also recent growth in inequality, which increased by 24 % between 1991 and 2005. On the other hand, however, the city has benefited from politically progressive actions by recent administrations, and it is recognized for relatively high levels of participation and accountability[(50)]. In 2004, Mayor Lucho Garzó n introduced the anti-poverty and anti-hunger campaign 'Bogotá sin hambre' ('Bogotá without hunger'), continued in 2007 under the 'Bogotá bien alimentada' ('Bogotá well-nourished') label. Both policies rest upon a foundational assertion that all people have a right to food security and that the state has the responsibility for ensuring that those rights are met[(51–53)]. The initiatives have integrated local policy with national support (e.g. funding), and the city has been as an exemplar of insulating progressive reforms from the caprice of political ebb and flow[(50)].

A fundamental part of both of these food security policies has been the school food programme, which the administration views multifunctionally as a means to address immediate situations of short-term hunger, to combat problems of long-term malnutrition and poor health, and to improve educational enrolment, atten- dance, retention and attainment. Municipal efforts in Bogotá have included creating new school food pro- grammes in schools that did not previously offer them; introducing kitchens into new and renovated schools; improving the nutritional quality of the meals served; and specifically targeting disadvantaged communities – including indigenous groups, migrants and ethnic minorities[(51)]. The school food programme now reaches approximately 678 000 students[(54)].

Importantly, since these efforts are situated within a wider anti-hunger and anti-poverty campaign, they are complemented by a suite of other initiatives such as nutritional supplementation, 'community canteens', cooperative food shops, food banks and activities to strengthen local food chains and urban agriculture[(51)]. A critical point about all of these initiatives, including the school meals component, is their shared emphasis on aspects of community building, inclusivity and

* The Gini coefficient is a common measure of income inequality. Indices above 0?50 are considered 'high' and those above 0?60, 'very high'. Although income inequality is not the only relevant measure of inequity, as some authors have pointed out, we accept the Gini coefficient as a signal of problematic distribution of resources, benefits and rights.

co-responsibility; for example, the community canteens are envisioned as centres for social and community development where participants can access learning and training, discover experiences of association and acquire a participatory identity in the community[55].

The outcomes of the programme have been positive but incomplete; the previous administration attributed a rapid 10 % decrease in poverty largely to the Bogotá sin hambre programme[56],* and the city positions itself as a leader in food security policy: at present, in Bogotá, 28 % of households are food insecure (against a much higher national average of 42 %)[57]. As its programmes evolve, however, Bogotá is beginning to face questions surrounding the breadth of reach and effectiveness of the school canteens, the degree of citizen participation in governance and oversight, and the provenance of food used in the city. While social movements have successfully elevated to the agenda the critical issue of urban market access for small rural producers, for example, those efforts have largely failed to breach the barriers to public food procurement[58]. However, as we discuss in the Conclusions, the city's policy approach to food is establishing a promising platform for addressing the new food insecurity – one that deserves the attention of other municipalities and of academics alike.

Conclusions: towards a new agenda for research and action around urban school food

The new global food scenario and the public health crisis it entails are creating an imperative for policy makers and researchers to address food security on new grounds and under a new rubric. To use the words of Lang, 'the old food policy paradigm is running out of legitimacy y today's food world is more complex and ''messier'' and requires a paradigm shift'[28]. As an increasing number of scholars are arguing, successfully negotiating this complexity will require turning to new models of public health nutrition and food policy that privilege ecologi- cally complex analyses and more systemic, structural and environmental interventions.

In the current paper we have attempted to show that school food ought to have a privileged place at the food systems reform table. The evidence available from both developed and developing countries points to its poten- tial to address both modes of the food security crisis (under- and mal-nutrition); to integrate structural and environmental with behavioural approaches; and to comprise far-reaching, system-wide efforts that determine the wider structuring and functioning of the food system.

This potential, we believe, is more likely to express itself in cities, where both human populations and environmental degradation are increasingly concentrated and where, precisely for this reason, the new food security crisis manifests in all its bimodality – that is, as a systemic crisis of food quality and quantity, availability and access, production and consumption. For urban governments, this is clearly raising a more and more urgent need for replacing conventional (and largely ineffective) supply-led food security policies with a more systemic approach that promotes a coordination, rather than collection, of reforms. In the context of an emerging and broadly visioned food policy, school food systems stand as a potent intervention site that can both integrate different types of (food security-promoting) reforms and can themselves be integrated into wider (food security- promoting) policy suites.y

As we have argued, the example of Bogotá is particu- larly relevant here for its innovative rights-based approach to food security and health-promoting school meals. In general, the notion of a right to food – and indeed of a right to health – bears greatly upon how a state understands its responsibility to assume measures addressing food insecurity[60–68]. In general, such an approach empowers citizens and promotes their partici- pation in the reform process; it charges not only the state but also other power holders with a (justiciable) responsibility for food security; and it establishes school meals as a well-being service – rather than a commercial one – with assertiveness and finality. At the same time, the notion that rights are indivisible and of equal impor- tance creates a conceptually valuable liaison between food and health: if citizens have not only a right to food but also a right to health, surely they have also a right to the quantity and quality of food that enables health – and perhaps also a right to remediation in the case that the quantity and quality of accessible food instead enable only the contrary, as might be argued in the case of the ‘food deserts’ dotting many urban areas in rich countries. We have also seen how innovative school food pro- grammes have been used to generate a wide variety of benefits. In the context of the ‘new food equation’ and its highly urban manifestation, it is only sensible to query the particular possibilities for urban school food systems to take on new roles in promoting food security. Where nationally enabling contexts for food security do not exist, cities stand out as potentially powerful innovators and implementers. Bogotá is one city that is striving to take the lead on this front with its Bogotá sin hambre

* Indeed, the way that Alfredo Sarmiento, Director of the National Human Development Program, described the reduction bears great relevance here. In the case of Bogotá, he said, it was clear that ‘the political decision to work in favor of social rights and equality’, in particular the Bogotá sin hambre programme, had played a key role in achieving the rapid decrease in poverty[56].

y Not only do social problems tend to concentrate in cities, so too do the resources to combat them. Capital of all types (economic, social, cultural, intellectual, etc.) also tends to concentrate in cities, and cities conse- quently often act as fertile ground for social movements. For a lengthier discussion regarding the role of social movements and civil society around urban school food – effectively an exploration of the non-state actors who collectively give thrust and sustenance to the state efforts we discuss herein – see Ashe and Sonnino[59].

programme, and it has wisely embraced school food as a key platform for intervention. By embedding a renewed ethic into its school food system, Bogotá is doing much more than providing the inputs required for the satisfac- tion of children's immediate nutritional needs. It is also attempting to build – structurally and culturally – a food system with improved promise for long-term food security and good public health.

The wider potential for urban school food, however, remains as yet too little explored (and perhaps exploited) in practice and too little understood in theory, and this is unfortunate on both counts. Considering the size of the urban school food market and its emphasis on one of the most vulnerable segments of the human population (children), reformative initiatives in this arena arguably have a major role to play in fashioning an urban environment that fosters affirmative multifunctional outcomes of food systems in relation to food security, public health, community development and environmental integrity. Much more work needs to be done to understand the nature, dynamics and transformative potential of these initiatives and to identify the opportunities for pioneering cities to co-produce and exchange knowledge that can ultimately serve as a tool and a roadmap for food security. Indeed, as we have argued in the current paper, the severity of the new food security problem is immense, and so, too, must be the intellectual and practical resources dedicated to its address. In allocating those resources, practitioners and researchers – and the public health nutrition community in particular – should give urban school food a key place on the agenda as both an intervention site and a laboratory for food security policy.

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