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"The highest and best use of land in the city": Valuing urban agriculture in Philadelphia and Chicago

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Abstract

United States cities have developed urban agriculture support systems with different priorities and institutional structures, with significant impacts and implications for social equity and justice. Some treat farming and gardening as public goods, public spaces, valued for their community-building, environmental and public health promotion, and other social benefits. Others have sought to extract more economic and redevelopment gains from urban agriculture. These represent divergent, often opposing expectations of what urban agriculture can yield, and what it should be, often present in the same city. This article, a combination of mixed methods research and reflection, traces the evolution of urban agriculture practice, support, and policy in Philadelphia and Chicago since the 1990s. In both cities, community gardens first declined and then grew in number since the late 2000s; both cities became prominent centers of urban farming. The two cities' policies and support systems started from a similar place in the 1990s, but Chicago increasingly treated urban agriculture a public good, while the place of agriculture in Philadelphia remained more contested and unstable. These histories reflect broader tensions and the diversity of approaches in governing, supporting, and practicing agriculture in cities.

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Community Gardens, Urban Farms, City Policy, Governance, Urban Agriculture Support Systems, Chicago, Philadelphia, Public Good, Community Development, Economic Development

Introduction

"Community gardens are the highest and best use of land in the city," says Ben Helphand, director of NeighborSpace, Chicago's land trust for community gardens (B. Helphand, personal communication, Oct. 15, 2016). In the logic of real estate economics and urban redevelopment, he is wrong. But for cities that prioritize other values and impacts, there indeed may be no higher and better land use than urban agriculture. Arguably, no other urban land use enables people of all ages and backgrounds to reap such a broad range of social, health, educational, and other benefits (Draper & Freedman, 2010; Lovell, 2010). For these and other reasons, some cities treat agriculture as a public good, as permanent public space accessible to all.

Yet many municipalities, and some urban agriculture support organizations, value farming and community gardening more for their contributions to redevelopment, with narrower, shorter-term aims. Many cities are reluctant to grant long-term land tenure, viewing agriculture as an interim use waiting for "higher and better" land uses that generate tax revenue, jobs, and private investment. Some cities organize their agricultural sectors centrally around access to vacant land, pitting growers against developers. Some cities prioritize economic and redevelopment outcomes from farms and gardens, including enterprise growth, land reclamation, and property value increases (Pothukuchi, 2018; Vitiello & Wolf-Powers, 2014).

Most big cities take a mixed approach to community gardens and farms. Actors place different emphases—sometimes in tension with one another—on the value of the various demonstrated and potential impacts of urban agriculture noted above. Parks, health agencies, and other enactors of social and environmental policy commonly treat urban agriculture as a public good, prioritizing non-market benefits. Economic development and redevelopment agencies more often view it as an interim use and an enterprise development opportunity. Planning departments vary in embracing these visions and values (Hodgson et al., 2011; Vitiello & Wolf-Powers, 2014). The relative influence of these agencies over urban agriculture in a city holds critical implications for the extent to which gardening and farming are promoted to these diverse ends.

Urban agriculture support systems likewise differ substantially, including in the ways they mediate land access and tenure. Some urban agriculture support functions are based more in the public sector, others more in the nonprofit sector. The institutions supporting community gardens and farms in cities vary in their missions, scope of work, and the durability and funding streams of municipal and nonprofit programs (Lawson, 2005; Lawson & McNally, 1999; Vitiello & Nairn, 2009). Municipalities and civil society also manage land access and tenure for urban agriculture in distinct ways, some more transparent and navigable to the public than others. Access and tenure are determining factors in how much a city's agriculture system operates as a public good, and how much it promotes equity and justice in people's control over land and food production (Drake & Lawson, 2014; Ela, 2016; Ela & Rosenberg, 2017; Lawson, 2005; Pothukuchi, 2017, 2018).

Compounding this variation, the very definition of urban agriculture is ambiguous in the U.S. Some use the term to mean strictly farming food and other products for sale. Others, including most scholars of urban agriculture, include a wide range of market and non-market production, processing, and distribution in their definitions of urban agriculture. In this latter view, community and home gardens are the largest forms of urban agriculture, involving more people and producing more food than sites that are generally called urban farms (Taylor & Lovell, 2014; Vitiello & Nairn, 2009). People most familiar with urban agriculture practice also recognize that most urban farms engage not only in commercial activity; many are nonprofit organizations, and some do not sell any of their harvest (Dimitri et al., 2016; Hodgson et al., 2011; Kaufman & Bailkey, 2000; Siegner et al., 2020; Vitiello & Wolf-Powers, 2014). Appreciating the overlaps and relationships between urban farming and gardening is arguably more important, and

more realistic, than attempting to distinguish them from one another.

This paper explores how urban agriculture has been valued, governed, and supported in two cities, Philadelphia and Chicago, featured in the groundbreaking study *Farming Inside Cities* by Jerome (Jerry) Kaufman and Martin Bailkey (2000). Originally written for a symposium in Jerry's honor, it asks: How have cities organized their urban agriculture support systems, including land access and tenure? What values and aims have city leaders ascribed to urban farms and community gardens? What do different paradigms of policy and support mean for urban agriculture's position as a land use, and for gardeners and farmers? This paper explores these questions by reflecting on the evolution of the urban agriculture sectors and support systems of Philadelphia and Chicago since the end of the 1990s.

I first review literature on divergent visions, values, and approaches to urban agriculture since *Farming Inside Cities*, and then briefly discusses research methods. The subsequent sections on Philadelphia and Chicago reflect on what Kaufman and Bailkey found when they visited in 1998–1999 and how the two cities' landscapes of farms and community gardens, support systems, and policies subsequently evolved. While their urban agriculture sectors and support systems closely resembled one another in the late 1990s, Chicago increasingly has treated urban agriculture as a public good, but in Philadelphia its purpose and place in the city remained more contested and unstable.

This analysis is based on quantitative and qualitative research as well as work with growers, policymakers, support organizations, and advocates I have conducted with colleagues in the two cities since the mid-2000s (Vitiello, 2008; Vitiello & Nairn, 2009; Vitiello & Wolf-Powers, 2014). This mix of research and practice makes this paper a combination of research study and reflective essay. It contributes to a growing literature on the purposes, meanings, and governance of urban agriculture (Cohen & Reynolds, 2014; Daftary-Steel et al., 2015; Horst et al., 2017; McClintock, 2014; McClintock & Simpson, 2018; Pothukuchi, 2015, 2017, 2018; Siegner et al., 2020; Ventura & Bailkey, 2017; Vitiello & Wolf-Powers, 2014). Comparing different cities can help scholars, practitioners, and advocates assess how equitable our urban agriculture systems and sectors are, and take stock of recent policy and practice in order to prioritize what we most value moving forward.

Literature Review: Visions and Values of Farming and Gardening

In *Farming Inside Cities*, Kaufman and Bailkey (2000), highlighted the entanglement of, and tensions between, different visions, values, aims, and expectations of urban agriculture in U.S. cities. In the years since, their colleagues, students, and other scholars have produced a substantial literature grappling with these tensions. A central question in this literature concerns the extent to which urban agriculture can or should be a viable private market activity, a public good, or a redevelopment strategy.

Farming Inside Cities was a study of "entrepreneurial urban agriculture." Contrary to definitions of entrepreneurship as a private market pursuit, Kaufman and Bailkey showed that entrepreneurial urban agriculture was embedded mostly in the nonprofit sector. Only a few of the seventy farms they found were turning a profit; some had closed and others were still in the planning stages. As a result, they argued economic valuations were not all that mattered: urban farms provided "a variety of other social, aesthetic, health, and community-building and empowerment benefits" (Kaufman & Bailkey, 2000, p. 84).

Kaufman and Bailkey recognized the incongruous fit between even the most profit-driven urban farming at the time and the value systems of redevelopment professionals. One of the greatest obstacles, they concluded, was the "sobering reality" that agriculture "is not seen as the 'highest and best use' of vacant inner city land by most local government policy officials who would like to attract 'better' tax paying uses on this land" (2000, p. 84). Kaufman and Bailkey cast entrepreneurial agriculture as a worthwhile addition to cities' redevelopment strategies for its numerous potential benefits to residents of disinvested neighborhoods, from stipends for youth growers to fresh food access (2000, p. 85).

Lawson and her colleagues have further exposed the rifts in values and goals between dif-

ferent interests and actors in community gardening, farming, and redevelopment of vacant land. Lawson (2005) points to the long history of city governments, elite-led nonprofits, and philanthropists supporting urban agriculture largely in times of crisis, while their commitments have waned at other times. Meanwhile, marginalized communities, and especially migrant communities from rural origins, domestic and global, have engaged in urban gardening and farming more continuously, where and when they can. Lawson acknowledges community garden impermanence and the "precarious nature of semi-public space" (2009). She and her colleagues emphasize land tenure, enduring support systems, and ongoing attention to participation as critical to garden longevity (Drake & Lawson, 2014, 2015; Ho et al., 2009; Lawson, 2005, 2007, 2009; Lawson & Drake, 2015; Lawson & Miller, 2013;).

In a study of Seattle, Hou et al. (2009) make an explicit case for community gardens as a public good, "as public open space." With the P-Patch support program coordinating garden access and support in the city's Department of Neighborhoods, and the Parks Department and nonprofit P-Patch Trust holding land, Seattle is arguably the leading example in the U.S. of urban agriculture as public space. Community gardens may not be locked, have signage in many languages, and are located around the city, with some of the largest in working–class neighborhoods (Lawson, 2005). Other scholars and practitioners also recognize P-Patch as one of the nation's strongest, most equitable systems (American Planning Association, 2007; Hodgson et al., 2011; Horst et al., 2017; Vitiello & Brinkley, 2014).

By contrast, Pothukuchi's studies (2015, 2017, 2018) of Detroit and Cleveland present a powerful critique of the "redevelopment model" of urban agriculture. She illuminates how even in cities where vacant land abounds as population loss continues in the twenty-first century, politicians, city agencies, and redevelopment scholars discourage granting long-term tenure to agriculture; their "growth paradigm" (Pothukuchi, 2018, p. 658) strives to value it as more than an interim use. For the city to "foster an enduring urban agriculture sought by advocates," she concludes, "the value of both urban land as well as agriculture will need to be reimagined" (Pothukuchi, 2018, p. 672). More "conventional notions of highest and best use of land may need to be replaced … with more durable support" (Pothukuchi, 2018, p. 672) that treats urban agriculture as a long-term, low-profit land use, appreciated and protected for the "community value it creates" (Pothukuchi, 2018, p. 672).

Related research by myself and others highlights the limits, and successes, of urban agriculture as economic development. Our findings contest the expectation that most urban farming can satisfy outcomes traditionally sought by economic development agencies, such as profitable firms, stable jobs, and enhanced tax revenue. Instead, we echo Kaufman and Bailkey in arguing for an appreciation of urban agriculture's contributions to supplemental income, education and workforce integration, social enterprises, jobs in nonprofits, and contributions to household food budgets and networks of social support (Vitiello & Wolf-Powers, 2014; also Biewener, 2016; Daftary-Steel et al., 2015; Dimitri et al., 2016; Ventura and Bailkey, 2017). The ambiguous lines between gardening and farming only make this more important.

Indeed, a clear dichotomy between urban agriculture as a public good or as a mechanism for economic or property development is clearly false. McClintock argues that "urban agriculture *has to be* both…a form of actually existing neo-liberalism *and* a simultaneous radical counter-movement arising in dialectical tension" (2014, p. 148), if it is to realize its potential to support social and ecological change. The variety of urban farming and gardening social enterprises of recent decades, for McClintock, are part of "urban agriculture's entanglement in various processes of neoliberalisation" (2014, p. 149), the shift to market models of governance and reliance on private actors to produce social benefits. Most notable among these entanglements is the "roll-out of non-profits to fill in the gaps left by the rolling back of the social safety net, and the promulgation of neoliberal discourses of personal responsibility and market-based solutions" (2014, pp. 148–149).

Similarly, community gardens' relationships with neighborhood change hold mixed implica-

tions for disadvantaged communities. Community gardens typically are the most public and often the most equitable form of urban agriculture, places where people experiencing poverty stabilize their neighborhoods and lives. More ambiguously, gardeners help create the conditions that support gentrification and, sometimes, displacement: improvements to land and property values, neighborhood beautification, increased safety. Some real estate developers employ community gardens to beautify and attract interest in properties before construction. More and less public and equitable forms of community gardening thus impact—and are deployed variously within—the larger processes of neighborhood change (Branas et al., 2012; Lawson, 2005, 2007; Martinez, 2010; Rubin & Guo, 2012; South et al., 2018; Vitiello & Nairn, 2009).

The uneven approaches of city governments and nonprofit urban agriculture support organizations both reflect and reproduce these tensions and variable outcomes. Assessing the effectiveness, equity, and sustainability of urban agriculture support systems is an important part of food system planning and community development (Bleasdale et al., 2011). In many cities a large swath of the public participates in community gardens and farms, yet only some cities have substantial public sector involvement in urban agriculture (Drake & Lawson, 2015; Lawson, 2005), as well as strong citywide support systems, including community land trusts that help acquire, own, pay insurance, and sometimes manage gardens and farms. And only some of these land trusts hold a large, well-distributed, accessible, and stable landscape of community gardens or farms (Choo, 2011; Drake & Lawson, 2015; Hou et al., 2009; Lawson, 2005; Rosenberg & Yuen, 2012). In most cities, urban agriculture is to some extent contested, by neighbors, public authorities, private developers, and growers (Hodgson et al., 2011). In too many cities, urban agriculture and the policies and institutions that support it are celebrated uncritically, without perspective on other cities' systems. And in some cities, including Philadelphia and Chicago, urban agriculture policies, support systems, and landscapes of gardens and farms have changed considerably in recent decades.

Methods

This article draws on a mix of quantitative and qualitative research, as well as my experiences working with gardeners, farmers, policymakers, urban agriculture support organizations, and advocates in Philadelphia and Chicago. Data includes citywide censuses documenting all community gardens and farms in the two cities, conducted in Philadelphia in 2008 and updated in 2012 and 2015, and in Chicago in 2012–2014. These studies documented the locations, conditions, ownership, and food production at each garden and farm site. During these and subsequent years, we interviewed over 200 gardeners and farmers. We asked about the histories, organization, and social life of their gardens and farms, and what people did with their harvest (Borowiak et al., 2018; Safri et al., 2018; Vitiello & Nairn, 2009). In this and separate research on urban farming and economic development, colleagues and I have also interviewed staff at nonprofit support programs and city agencies (Vitiello & Wolf-Powers, 2014). Finally, I have participated in and sometimes led policy advocacy, program development, and evaluation research with urban agriculture organizations as well as city agencies in Chicago and especially Philadelphia.

Reflecting on what colleagues and I researched and experienced over the last two decades has offered an opportunity to compare urban agriculture practice and support systems in the two cities. *Farming Inside Cities* provided a baseline assessment of farming and garden support systems in the late 1990s as well as critical reflections on a set of questions that inspired much of my own work. Jerry Kaufman and Martin Bailkey were important mentors to me; we visited urban farms and community gardens together in Chicago and Philadelphia in the summer and fall of 2008.

Findings

Chicago and Philadelphia are among the United States' most vibrant centers of urban agriculture, with substantial histories of community gardening and farming, histories that largely paralleled one another through the end of the twentieth century. However, in the twenty-first century, their municipal governments and urban agriculture support organizations embraced distinct visions for farming

and gardening, reflecting different values. This resulted in divergent governance and support systems, with critical implications for the management, stability, and equity of their urban agriculture sectors.

Philadelphia

Vacant land and social crisis are central to the history of urban agriculture in Philadelphia. As in Chicago, Detroit, and New York, most histories of urban agriculture in the city begin with the Vacant Lot Cultivation Association formed during the Depression of 1893–1897, which gave people more access to undeveloped land. Government gardening programs during the World Wars and Great Depression scaled up food production in these and other cities again in subsequent decades, on vacant land, parks, and cemeteries, though always temporarily (Lawson, 2005). Just one Victory Garden from World War Two survives in Philadelphia (Vitiello & Nairn, 2009).

In 1954, elite women from the suburbs formed the Neighborhood Gardens Association, bringing horticulture programs to working-class blocks, reflecting what Lawson (2005) has characterized as Philadelphia's particularly paternalistic culture of community gardening. In the mid-1970s, Penn State County Extension became one of the first sites of the USDA Urban Gardens Program and the elite Pennsylvania Horticultural Society (PHS) established the Philadelphia Green Program. These programs helped diverse Philadelphians, especially working-class African American, Puerto Rican, and Southeast Asian migrants, establish hundreds of gardens on vacant land around the city. In the 1980s, the two organizations established the Neighborhood Gardens Association land trust (NGA, distinct from the earlier group), to preserve some of these gardens (Lawson, 2005; Vitiello & Nairn, 2009).

As Philadelphians elected a new mayor, John Street, in 1999, Kaufman and Bailkey (2000) wrote, "city government presently plays no explicit role in the support of urban agriculture"; rather, community gardens and farms had "a large and somewhat diffuse supporting infrastructure … outside of municipal government" (p. 44). The biggest part of the Philadelphia urban agriculture sector remained its nonprofit community garden support system. Penn State was still one of the "two major urban agriculture actors" in 1999, "providing technical assistance and educational support to over 500 community gardens" (pp. 41–42). In this program, "for-market production has not been emphasized or supported, primarily because its constituents are older and not interested" (p. 42).

However, PHS, which supported most of these gardens and many other spaces around the city, was exploring commercial urban farming as part of a larger vacant land greening and management strategy. This was a priority for policymakers in a city of some 40,000 vacant lots (Pennsylvania Horticultural Society, 1995; Philadelphia City Planning Commission, 1995). PHS held a conference and commissioned a report on urban farming but did not start new programs for farms at the time, largely due to farming's limited economic prospects (Philadelphia Green, 2000).

Yet, in 1998 and 1999 Bailkey and Kaufman found that farming was expanding in Philadelphia, with "entrepreneurial agriculture" representing a mix of for-profit and nonprofit growers and diverse business models. Greensgrow Farm, a "privately owned, hydroponic vegetable producer" (p. 35) started in 1997, had increased its seasonal workforce from three to five with Welfare-to-Work subsidies. For-profit Philaberry Farms had grown raspberries and blackberries for groceries and restaurants for seven years on a vacant lot, a speculative real estate holding strategy "until the time is right for residential development" (p. 38). Philly Farms Mushrooms, a joint venture of larger investors and the Kaolin mushroom company, was still in the planning stages. More farms and production gardens were tied to nonprofits, including a garden at University City High School supported by the University of Pennsylvania's Urban Nutrition Initiative. The nonprofit Village of Arts and Humanities had recently planted a tree farm, and nearby Sea Change, Inc. provided jobs and training for formerly houseless people at its tree farm, CSA, and café. Sea Change, however, was on "the brink of bankruptcy" due to "difficulties of fundraising, the marginal revenues produced by the CSA and Cyber Café, and the inability to resolve issues of future land access" (p. 38; see also Vitiello, 2008).

As the experience of SeaChange suggested, land disposition in the city remained a barrier. Kaufman and Bailkey (2000) explained, "despite the positive awareness of city farming in Philadelphia, acquiring the land needed to implement it is, in practice, difficult due to bureaucratic complexity and the way in which city agencies managing vacant land guard their own interests" (p. 45). City council members and municipal agencies' reluctance to transfer land seemed counter to "the stated concerns of city government for the social and economic consequences of blighted properties in central Philadelphia neighborhoods"; they hoped that Street, the new mayor, with his "commitment to a focused policy addressing neighborhood blight, may anticipate greater opportunities for entrepreneurial urban agriculture" (p. 45), including the same strategy for managing vacant land that PHS advocated.

For the most part, the Street administration proved hostile-to-uninterested in urban agriculture, but people established new farms in the 2000s even as most of those profiled in *Farming Inside Cities* closed. Greensgrow survived, thanks to its CSA sourcing from the region, its nursery, and grants for its community kitchen and education programs. Philaberry, Sea Change, and Philly Farms Mushrooms (which never got into production) all folded by the early 2000s. The Village abandoned its tree farm, and the University City High School garden was bulldozed. By 2008, new farms included Weavers Way Coop's market gardens and orchards at Awbury Arboretum, MLK High School, and its new CSA at Saul Agricultural High School, a public vocational school. Private Flat Rock Farm sold much of its harvest to the cafeteria of a nearby private school. Mill Creek Farm, an educational nonprofit, grew out of a stormwater management project supported by the Water Department, as did Somerton Tanks Farm, a demonstration farm promoting the economic viability of the Small Plot Intensive (SPIN) Farming growing method (Vitiello, 2008). By 2010, Philadelphia had about 20 farms.

Bigger changes happened in community gardening, as the city's robust garden support system declined. In 1996, Congress de-funded the Urban Gardens Program, devastating city extension offices around the country. Philadelphia County Extension kept its program going until 2000. Community gardening programs at PHS also lost their main sources of philanthropic funding and shrank dramatically (Lawson, 2005; Vitiello & Nairn, 2009). In 2008, my colleagues and I visited over 700 sites in the city where Penn State and PHS had supported community gardens, as they had lost track of which gardens remained active. City Harvest, the new name for urban agriculture programs at PHS, supported just 37 sites that year. We found 227 community gardens growing food, down from 501 in 1996, when Penn State had last documented them (Vitiello & Nairn, 2009). Philadelphia lost more than half its food-producing community gardens in just twelve years.

Interviews with current and former gardeners, neighbors, and city and nonprofit staff suggest three principal reasons for this decline. First, as Kaufman and Bailkey identified a decade earlier, gardeners were aging and passing away. Second, the decline of garden support programs meant many older gardeners who depended on support ceased gardening. Public and nonprofit systems for accessing a plot in a community garden were fragmented, unclear, and often informal, which meant that many older gardeners were not replaced. We heard more than once, "to get a plot, you have to know someone who knows someone." Staff at the Redevelopment Authority even lost the institutional memory that the agency had been tasked with administering annual agreements with gardeners on scores of city-owned lots (Vitiello & Nairn, 2009).

The third reason, compounding the first two, was Mayor Street's signature project, the Neighborhood Transformation Initiative (NTI). Launched in 2000, it sought to demolish vacant buildings, "clean and green" vacant lots, and assemble land for development. PHS scaled up its vacant land management, but not with farms and gardens. Rather, PHS and its partners planted and mowed grass ringed by trees and wood fences on thousands of properties. This stabilized many lots, and subsequent research found that cleaned and greened lots had significant effects on safety and health (Branas et al., 2012; South et al., 2018). But cleaning and greening also destroyed community

gardens, especially on city-owned and tax-delinquent lots in North Philadelphia.

We encountered about a dozen people on different blocks who told us, essentially, that, "a man came from the city one day, said we couldn't garden here anymore," and soon after, "a bulldozer came and cleared the garden." Most of these sites, where typically smaller gardens were displaced in the early and mid-2000s, remained vacant in 2008. Displacing gardeners, we observed, "was made easier by the fact that most community gardens are listed on city property databases … as 'vacant land'" (Vitiello & Nairn, 2009, p. 37). Notwithstanding the benefits of vacant land management, these gardens and their gardeners impacted health and safety in similar ways. They had taken care of land, gotten people outdoors, and grew relationships and trust, arguably in more impactful ways than fencing and mowing the same lots.

These changes helped produce clearly inequitable patterns and trends. Most of the gardens that disappeared between 1996 and 2008 were in poorer sections of North, West, and South Philadelphia, rowhouse neighborhoods where the African American, Puerto Rican, and Southeast Asian populations were aging. Most of these neighborhoods would gentrify in the subsequent decade, as developers built on these and other gardens that lacked protection from displacement. The NGA land trust owned 26 gardens in 2008, most in already gentrified areas where affluent white gardeners had purchased the land and transferred it to NGA. This "helped reinforce the pattern of gardens in low-wealth neighborhoods disappearing while those in middle class neighborhoods more often survived" (Vitiello & Nairn, 2009, p. 37).

Still, the longevity of hundreds of gardens in the city represented an important finding. Scores of community gardens had persisted for two or three decades or more: "our findings … contradict one major assumption made by many city agencies and philanthropists, namely that community gardens are simply a 'temporary land use'" (Vitiello & Nairn, 2009, p. 43). But casting urban agriculture as an interim use was increasingly a winning strategy with politicians and redevelopment professionals. PHS responded to the limits and opportunities of city and philanthropic funding under Mayor Street and his successor Michael Nutter with new rationales for agriculture. Since the 1970s, PHS had presented its community gardening programs as bringing together residents of blighted neighborhoods to "take back" and beautify *their* neighborhoods. But by the late 2000s, PHS came to promote City Harvest largely as a program for community gardens to donate produce to food cupboards (Meenar & Hoover, 2012; Vitiello & Nairn, 2009) and emphasize City Harvest's contributions to property values and redevelopment. Economists' finding that vacant land management, gardens, and other greening helped raise adjacent property values supported this new narrative (Voicu & Been, 2006; Wachter & Wong, 2008).

This new emphasis reflected two interrelated paradigm shifts in the values underlying U.S. urban agriculture. First, repeating the long-term trend of viewing urban farming as a temporary response to crises, national media, philanthropy, governments, and others increasingly promoted it as a solution to food insecurity (DeLind 2014). Second, as Philadelphia, Chicago, and other cities experienced revitalization and rising interest in green jobs, a variety of urban and economic development interests touted its potential real estate and economic development payoffs, a vision promoted also by SPIN farming and other advocates (Hunold et al., 2017; Institute for Innovations in Local Farming, 2007; Vitiello & Nairn, 2009).

Like its predecessor, the Nutter administration lacked a coordinated strategy for urban agriculture, perpetuating contestation over where and what it should be. In 2008, advocates convinced Nutter's first sustainability director to establish a Food Policy Advisory Council (FPAC). In 2009, however, heads of the Redevelopment Authority and the Department of Parks and Recreation argued over which agency should control urban agriculture, and whether to treat it as an interim use, a stance promoted by Nutter's redevelopment director and his director of planning and economic development. In 2010, the Redevelopment Authority and Parks and Recreation failed in respective attempts to locate market gardens on their properties, the former since it offered only short-term leases and the latter since it threatened a longtime agricultural use, the hayfield of Saul Agricultural High School

(Hodgson et al., 2011; Vitiello & Wolf-Powers, 2014). Neither department pursued a major commercial farming project again. But in 2014 Parks and Recreation established the FarmPhilly program, supporting new and existing community gardens and farms at recreation centers and parks.

In the 2010s, gardeners and advocates turned increasing attention to the preservation of community gardens, as private development took off in many neighborhoods. The NGA land trust had never been the center of PHS or Penn State's garden support systems. In the late 2000s, PHS leaders decided to shut down NGA before PHS's new president Drew Becher, who came from Bette Midler's land trust for gardens in Manhattan, reversed this decision. PHS took control of NGA and renamed it the Neighborhood Gardens Trust (NGT). Under Becher, however, PHS invested more in pop-up beer gardens than in NGT (Hodgson et al., 2011).

In 2011 attorney Amy Laura Cahn started the Garden Justice Legal Initiative (GJLI) at the Public Interest Law Center of Philadelphia. Much like 596 Acres in New York, GJLI helped individual community gardens and farmers gain ownership and resist displacement, while at the same time pursuing policy advocacy in City Council and the FPAC (Public Interest Law Center of Philadelphia, 2013). GJLI incubated Soil Generation, a coalition of growers and advocates led by Black and Brown people. The first true organized group of grassroots advocates for agriculture in the city, Soil Generation's campaigns focused on threatened gardens, fought city leaders' proposals to limit community gardening and farming, and promoted policies favoring community-owned agriculture. Its members included leaders of new nonprofits working on food justice in communities of color, such as VietLead and Urban Creators.

In 2012 and 2015, GJLI updated our 2008 census of community gardens and farms, assisted by geographer Peleg Kramer, political scientist Craig Borowiak, my students and me (Borowiak et al., 2018). We found significant, sustained growth of community gardens, but more uneven growth and then decline in the number of sites which growers called farms. The boundaries between those categories remained ambiguous, and the number of community gardens stayed below that of the 1990s (Table 1).

GJLI and Soil Generation altered the city's institutional ecosystem of urban agriculture, but they continued to operate in its system—and political economy—that tied urban agriculture to redevelopment. Cahn helped strengthen the FPAC's urban agriculture committee, with its name, the Vacant Land Subcommittee, signaling its greatest focus. She advocated treating community gardens and farms as "commons" and characterized GJLI's "interventions to hold enclosure at bay" as a process of "mak[ing] existing community-stewarded places visible and expos[ing] pathways to access" (Cahn & Segal, 2016, p. 196). This vision contrasted with the city's ongoing realities.

GJLI, the FPAC, as well as PHS and NGT, sought to collaborate with the city's nascent land bank, a tool for redevelopment whose primary purpose was putting properties back into taxpaying use. But their visions of land bank support for gardens and farms conflicted with other interests' priorities for the land bank. Local council members still controlled land bank decisions about transferring land, and some council members were more favorable to urban agriculture than others. Advocates' embrace of the land bank limited their ability to counter the "redevelopment model" that still dominated urban agriculture governance in the city.

Philadelphia in the twenty-first century regrew a vibrant urban agriculture sector *despite* lack of a coordinated public strategy or a strong land trust for community gardens and farms. But in the late 2010s efforts to change these conditions took important steps forward. The Neighborhood Gardens Trust expanded under subsequent leadership at PHS, from 38 community gardens in 2018 to

Table 1. Community Gardens and Farms Growing Food in Philadelphia

Year	# of community gardens	# of farms	Total gardens + farms
1996	501	at least 5	506
2008	227	about 8	235
2012	295	about 45	340
2015	387	about 31	418

almost 50 by 2021. Within city government, my former student Ash Richards convinced the Department of Parks and Recreation to create the position of Urban Agriculture Director and initiate a citywide urban agriculture plan. Soil Generation led community engagement for the planning process, although after initial meetings attended by hundreds of growers the COVID-19 pandemic slowed their work. The FarmPhilly program grew to serve some 60 gardens and farms on Parks and Recreation land, along with compost, education, and other programs for other growers in the city (FarmPhilly, 2021). Indeed, Philadelphia's greatest agricultural assets were virtually all located on parkland, including the Saul Agricultural High School farm and several other large farms and community gardens. Not coincidentally, these were the sites where agriculture in the city was most clearly treated as a public good.

In Philadelphia, agriculture has operated predominantly within a redevelopment framework, but also partly as a public good. As in many older industrial cities, vacant land remained an important part of urban agriculture, with attendant tensions between different visions of gardening and farming. Like New York under Mayor Rudy Giuliani, Philadelphia experienced an era in which the city bulldozed a substantial number of gardens, actions that with gentrification and growing interest in urban agriculture helped inspire a new era of activism. Like Detroit, Cleveland, and Oakland, but unlike New York and Seattle, the city lacked sustained collaboration between the parks and other departments, the land trust, and other urban agriculture support organizations. This lack limited its ability to develop a more stable, accessible system of land preservation and assistance for community gardens and farms distributed throughout the city. The city's urban agriculture support systems, and by extension community gardening and farming, remained embedded in and vulnerable to the cycles of economic growth and crises.

Chicago

By contrast, in the years since *Farming Inside Cities,* urban agriculture in Chicago became a more substantial public good, supported by a strengthened institutional infrastructure. But into the 1990s the two cities shared significant similarities. Like Philadelphia, histories of urban agriculture in Chicago typically begin with its Vacant Lot Cultivation Association in the 1890s, and later World War and Great Depression-era gardens. In the post-World War Two decades, an elite-led horticulture organization, the Chicago Botanic Garden (CBG), largely dominated the community garden support system. Even before PHS in Philadelphia, however, the CBG community garden support program lost its core funding in the 1990s. By the time Kaufman and Bailkey visited Chicago at the end of the decade, the program was closed. Indeed, the complete collapse of citywide urban agriculture programs made room for Chicago to develop a new support system.

Kaufman and Bailkey did not mention the CBG in their 2000 report, or the Urban Gardens Program run by University of Illinois Extension, which had recently closed when Congress and the USDA defunded it in 1996. They concluded that a "strong citywide non-governmental support organization for urban agriculture does not exist to the same degree as in … Boston and Philadelphia" (Kaufman & Bailkey, 2000, p. 33). Nevertheless, they highlighted emerging public and nonprofit support programs that were providing increasing support for urban farming and community gardening. As in Philadelphia, in 1999 they found a "diverse array of for-market urban agriculture projects are underway," and "most are managed by non-profit organizations" (p. 29). Two farms operated under the Resource Center, a nonprofit focused on job creation through recycling and other environmental projects. The God's Gang Worm and Fish Project and the Cabrini Greens program ran indoor vermiculture and aquaculture farms at public housing projects slated for demolition. Heifer International, a global anti-poverty nonprofit, supported these and other youth programs. Kaufman and Bailkey also highlighted three nascent farming projects: a youth project by Los Angeles-based Food From the 'Hood, in start-up phase; Growing Home, a job readiness program of the Chicago Coalition for the Homeless that was remediating its site; and a church garden that had recently begun producing vegetables, flowers, and duck eggs planned for sale. In addition, they pro-

filed volunteer-run Ginkgo Organic Garden, which donated its harvest to a restaurant that employed houseless people and a food pantry serving people with HIV and AIDS.

Indoor farming was more established in Chicago than in Philadelphia. The privately owned, for-profit Chicago Indoor Gardens was "growing eleven different varieties of sprouted grasses and beans under artificial conditions in a small factory building" (Kaufman & Bailkey, 2000, p. 28); started in 1987, it had ten employees, supplied supermarkets and health food stores, and reported US$700,000 revenue in 1998. Kaufman and Bailkey noted other forms of less "formal" agricultural enterprise, mainly in immigrant communities, which studies of urban farming have often missed (and which they did not mention in their Philadelphia case study). These included "Hispanic women raising tilapia fish in their homes … a solar greenhouse project on thirteen vacant lots in a West Side Hispanic neighborhood, and a possibly clandestine operation where Asian growers are raising vegetables beside the railroad lines on the city's north side for an informal consortium of Vietnamese restaurateurs" (p. 29). These sorts of conditions also existed in Philadelphia in the late 1990s, mostly on marginal land near railroad tracks or the airport, often without ties to support organizations.

Kaufman and Bailkey expressed "guarded optimism" about city government and civil society support for urban agriculture, citing three main factors: "a strong city-wide greening movement centered in local government and supported by a number of non-profit organizations, an emerging interest in urban agriculture projects by a few local foundations, and the presence of Heifer Project International" (p. 30). This last institution had established "its first urban, North American office in 1996 in Chicago," and had "become the leading institutional supporter of entrepreneurial urban agriculture projects in the city," providing funding and technical support to ten projects, with more planned (pp. 31–32); thanks to these organizations, they asserted, "Chicago's motto, *urbs in horto,* the 'city in a garden,' is being realized" (p. 29).

As in Philadelphia, city government in Chicago supported urban agriculture unevenly, although Kaufman and Bailkey perceived opportunities in its enthusiastic embrace of other forms of urban greening: "A small cadre of people working for local government are supportive, but for most local government officials [urban farming] is not on their radar screens" (Kaufman & Bailkey, 2000, p. 33). Mayor Richard M. Daley had championed various sorts of greening, but not yet urban farming. The Department of Environment's Greencorps program, however, had the mission "to enable Chicagoans to improve the quality of life in their neighborhoods by providing horticultural instruction, materials, and employment" (p. 30). It provided "about [US]$3,000 worth of resources in the form of plants, materials, and soil amendments" (p. 30) to each of 71 gardens, and more modest assistance to another 137 groups cleaning vacant lots and planting and maintaining gardens.

One "unique public sector organization," Kaufman and Bailkey (2000) predicted, "could be a boon to urban agriculture" (p. 30). Established in 1996, NeighborSpace was an autonomous nonprofit community land trust, created through an intergovernmental agreement by the Department of Planning and Development, Chicago Park District, and Cook County Forest Preserve District (the agreement was renewed in 2016). Representatives of these agencies served on its board and approved NeighborSpace's requests to acquire land for community-managed open space, principally community gardens. As a land trust, it held title to 60 garden properties by 1999; only seven grew food, and the rest were ornamental. NeighborSpace required "the community groups using the land to take responsibility for its management as a community project," facilitating "public" ownership in multiple ways (p. 31). Remarkably, NeighborSpace staff reported "gaining local government support for urban agriculture was not a significant problem" (p. 31). However, unlike Philadelphia, they reported that "little, if any, interest in urban agriculture was found among Chicago's community development corporations" (pp. 32–33). This is another way that Chicago's urban agriculture was not embedded in its redevelopment systems.

Ultimately, Kaufman and Bailkey (2000) characterized entrepreneurial urban agriculture as "still

in an embryonic stage in Chicago. There are some hopeful signs that a firmer foothold might materialize … in the future, but at present only a light layer of support exists" (p. 33); however, they concluded, compared to Philadelphia and Boston, Chicago contained "both the largest core of entrepreneurial urban agriculture activities and the municipal structure closest to fully supporting city farming as an alternate use of vacant land" (p. 34).

By 2011, when Ben Helphand invited me to work with NeighborSpace and other partners on a census of Chicago community gardens, the emergent trends that Kaufman and Bailkey identified a dozen years earlier were playing out. Heifer International closed its Chicago office the year before (as well as its nascent office in Philadelphia), and Greencorps had cut its support for community gardens. However, NeighborSpace helped convene gardeners to organize a new support system for themselves, the gardener-run Chicago Community Garden Association. Open to all community gardeners, this group effectively replaced the Botanic Garden and Greencorps as the citywide distributor of seedlings and other materials and support. It also gave Chicago an organized constituency of gardeners, who owned and ran key parts of the garden support system themselves.

Community gardening in Chicago has grown recently, with a substantial share of gardens preserved and most gardens now growing food. In 2013, we identified 209 community gardens growing food in the city. While we did not find reliable figures for earlier years, urban agriculture-support professionals in Chicago consistently reported that, as in Philadelphia, the number of community gardens in the city grew from the 1970s to early 1990s, diminished in the late 1990s and early 2000s, and was clearly growing again since the late 2000s. As research by NeighborSpace and our partners in the Chicago Urban Agriculture Mapping Project (CUAMP) since then has shown, the number of community gardens grew to 279 by 2018, 242 of them growing food (Chicago Urban Agriculture Mapping Project, n. d.; Taylor & Lovell, 2012). NeighborSpace held 71 gardens in 2010, and by 2018 it held 107 gardens and two nonprofit farms, with close to 70 more gardens in city parks (Hieggelke, 2010).

Chicago has remained a vibrant center of urban farming, despite substantial turnover. New farms since Kaufman and Bailkey's late 1990s study included several worked by Growing Power's youth programs (later the Urban Growers Collective, which survived Growing Power's closure in Milwaukee); City Farm, envisioned as a temporary installment on the former site of the Cabrini Green housing project; the largely indoor aquaponic Iron Street Farm, a nonprofit youth program; several growing sites of Windy City Harvest, a youth program run by the Chicago Botanic Garden; two farms of Growing Home, including one held by NeighborSpace; and many other nonprofit and commercial farms. By 2018, CUAMP counted 88 sites calling themselves urban farms, community farms, or gardens operated by restaurants and catering companies (CUAMP, n.d.).

The group that ran CUAMP, Advocates for Urban Agriculture, established in 2002, also gave Chicago an organized constituency of farmers and home and community gardeners working together and with NeighborSpace to influence policy. Urged by these and other advocates, in 2007 Mayor Daley's planning commission adopted the *Eat Local Live Healthy* plan, with a goal to increase food production in city neighborhoods (City of Chicago Department of Planning and Development [CCDPD], 2007). In 2011, Mayor Emanuel announced that the city would "relax fencing and parking requirements for larger commercial urban farms in order to hold down overhead costs for entrepreneurs and community organizations that launch and maintain these as enterprises" (Office of the Mayor, 2011, para. 5). New policies formalized permission for hydroponic, aquaponic, and apiary systems, and committed to supporting green job creation (CCDPD, 2011). Two years later, Emanuel endorsed a plan to make city land available for an expanded "incubator network" of workforce and small entrepreneur training farms (Rotenberk, 2013). These policies embraced a neoliberal vision of urban agriculture promoted by some Chicago farmers, casting agriculture as an engine of economic development. Nevertheless, the city's ongoing support for community gardens was arguably more significant for a far larger number of Chicago residents.

NeighborSpace brought relative stability and equity to Chicago's landscape of community gardens and system of urban agriculture support, compared to many other cities. This manifested in more than just the growing number of gardens preserved and protected under its ownership and insurance. The organization grew partly out of the need to rectify the well-documented and visibly gross inequity in the distribution of public space in affluent and poorer parts of the city. For many aldermen, city bureaucrats, and much of NeighborSpace's leadership, promoting equity was its central reason for being. In more practical terms, the city has continued to donate land to NeighborSpace through the Department of Planning and Development and "invests in the garden infrastructure because successive administrations and city council members have prioritized these community spaces, but also because our process is predictable. NeighborSpace vets applicants thoroughly and establishes ongoing relationships with community stewards so that the land will be maintained for the long-term" (Helphand, 2015, p. 2; see also Ela, 2016; Ela & Rosenberg, 2017).

The organization's core focus on community stewardship represented an investment in social sustainability. Helphand (2015) notes that NeighborSpace "assists with an array of stewardship issues such as gaining access to water, fixing broken infrastructure, leadership transitions and emergencies such as a downed tree or someone driving through a fence, which might otherwise derail a community garden over the long-term" (p. 1). Like agricultural land trusts in other cities, it also addresses "[t]he requirements for insurance, leases, testing, permits and other hurdles that would drown [many] community gardens" (p. 1). Unlike NGA's experience with some of its gardens, "[w]hen a NeighborSpace-protected site is faced with challenges, such as a lack of interest or leadership capacity, it does not revert to vacancy" (p. 2). The organization's "staff works with the community to re-establish, deepen and/or expand community environmental stewardship" (p. 2).

Chicago has had a vibrant urban agriculture sector in the last decade thanks largely to two structural factors. First, it has an organized constituency of community gardeners, farmers, and allies from around the city, with greater longevity, control of garden support systems, and influence on municipal government than in Philadelphia. Second, in addition to liberalizing support for urban agriculture as many cities have done since the mid-2000s, Chicago city agencies have made a clear, enduring commitment to urban agriculture in the creation and support of NeighborSpace. Centering urban agriculture support in a land trust, as complement to and in collaboration with the Park District, means that the institutional infrastructure of the community gardening system is at its core dedicated to fostering permanent ownership and community stewardship. The result is a system that, compared to Philadelphia and many other cities, is more accessible, navigable, and equitable—a public good.

Conclusion

Philadelphia and Chicago experienced similar histories of urban agriculture to the 1990s, but then took divergent paths in the structure, focus, and predominant values of their municipal and nonprofit support systems. This yielded different experiences for community gardeners and farmers, due to different levels and trajectories of land preservation, organized advocacy, and public and private support. While NeighborSpace and the Neighborhood Gardens Trust resembled one another in their operations and the protections they provide for gardens (Helphand, 2015; Vitiello & Nairn, 2009), NeighborSpace has operated much more at the center of Chicago's urban agriculture system, with more stable and collaborative relationships with city agencies.

To a great extent, Philadelphians and their institutions have continued to view urban agriculture as an ephemeral redevelopment strategy to address social, economic, and health crises. Until recently, even activists rarely imagined a substantial shift away from the city's focus on access to vacant land through the land bank. In contrast, Ben Helphand casts NeighborSpace as a break in the history of treating agriculture as temporary, with its attendant booms and busts in support for gardening and farming. "In order to break out of this cycle," for agriculture to "have a permanent place in the urban geography it is imperative that models

are developed that provide both long-term land security and can navigate the vicissitudes of community interest" (Helphand, 2015, p. ii). If the organization "can successfully acquire a site, it holds the title *forever* and cannot be uprooted," as long as community stewardship is sustained (p. 1). NeighborSpace characterizes this strategy as "permanently grassroots" (p. 2).

A growing body of evidence from research and practice suggests that it is time to break with the redevelopment paradigm as a major part of the approach to urban agriculture. Cities build stronger, more enduring and more equitable urban agriculture systems and sectors when they situate agriculture in a policy and institutional framework that does not seek to extract from growers a set of economic outcomes they are not well positioned to deliver (Helphand & Lawson, 2011; Hou et al., 2009; Pothukuchi, 2017, 2018; Vitiello & Wolf-Powers, 2014).

Urban agriculture should be valued for what it is demonstrably good at, primarily its social, health, and related non-market benefits. This means prioritizing urban agriculture as a public good that is accessible to the city's range of publics, and a long-term land use. This does not mean giving up on entrepreneurial urban farming, but rather embracing the diversity and multi-functional impacts of urban farming by nonprofits and for-profits, individuals, and collectives. For governments, support organizations, advocates, and growers alike, this more realistic approach can make urban agriculture more manageable in practice as well. It means that farmers and gardeners incur less risk of failing to deliver on false promises; for instance, that agriculture in itself can solve poverty, obesity, or other societal problems.

Centering urban agriculture systems in land trusts—not in land banks or redevelopment agencies—is essential for producing more sustainable and equitable urban landscapes of community gardens and farms. NeighborSpace provides a replicable model for doing this (Ela & Rosenberg, 2017). Elite horticulture organizations still play important roles in supporting growers in many cities; their histories remind us, however, that institutions without a mission centrally focused on urban agriculture can easily drift away from it when funding and other opportunities pull them elsewhere. By contrast, community land trusts prioritize enduring community benefits and community control. They are also well positioned for long-term collaboration with park systems, grower support programs, and other partners with social, environmental, and health missions. A central role for land trusts can help make agriculture a more permanent part of cities and communities, a public good whose benefits can accrue in more sustained and equitable fashion.

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