

University of Dayton eCommons

Health and Sport Science Faculty Publications

Department of Health and Sport Science

11-2016

Perspectives on the Development of a Local Food System: The Case of Dayton, Ohio

Diana Cuy Castellanos University of Dayton, dcuycastellanos1@udayton.edu

John C. Jones Rutgers University - New Brunswick/Piscataway

Joanne Christaldi West Chester University of Pennsylvania

Katherine A. Liutkus University of Wisconsin-Madison

Follow this and additional works at: http://ecommons.udayton.edu/hss_fac_pub

Commons, Food Science Commons, Public Administration Commons, and the Sustainability Commons

eCommons Citation

Castellanos, Diana Cuy; Jones, John C.; Christaldi, Joanne; and Liutkus, Katherine A., "Perspectives on the Development of a Local Food System: The Case of Dayton, Ohio" (2016). *Health and Sport Science Faculty Publications*. Paper 72. http://ecommons.udayton.edu/hss_fac_pub/72

This Article is brought to you for free and open access by the Department of Health and Sport Science at eCommons. It has been accepted for inclusion in Health and Sport Science Faculty Publications by an authorized administrator of eCommons. For more information, please contact frice1@udayton.edu, mschlangen1@udayton.edu.

Perspectives on the development of a local food system: the case of Dayton, Ohio

Diana Cuy Castellanos^a, John C. Jones^b, Joanne Christaldi^c, and Katherine A Liutkus^d

^aDepartment of Health and Sport Science, University of Dayton, Dayton, Ohio, USA; ^bCollege of Architecture and Design, Rutgers University/New Jersey Institute of Technology, New Brunswick, New Jersey, USA; ^cNutrition, West Chester University, West Chester, Pennsylvania, USA; ^dSchool of Veterinary Medicine, University of Wisconsin–Madison, Madison, Wisconsin, USA

Corresponding Author: Diana Cuy Castellanos, University of Dayton, 300 College Park, Dayton, Ohio 45469, USA. E-mail: dcuycastellanos1@udayton.edu

ABSTRACT Multiple sectors play vital roles in a community's development and maintenance of a sustainable local food system. This study explored the perceptions of twenty-two representatives from the civil society, public, and private sectors in Dayton, Ohio, about the development of the region's local food system. The researchers employed grounded theory methodology for data collection and analysis. Core themes from the participants of each sector group emerged from the data and areas of convergence and divergence among groups were reported.

KEYWORDS

Civil society; food policy; local food system; alternative food system; food producers

Introduction

The notion of local food system development has emerged in recent years as one method to create vitality in communities. Proponents perceive such development could lead to increased economic opportunity, social and physical well-being, food access and environmental sustainability within their community (Holloway et al. 2007; Hodgson, Caton, Campbell, and Bailkey 2011). The potential for increased economic activity is attractive to many communities who have experienced loss of employment base and population due to systemic deindustrialization (Metcalf and Widener, 2011). It is suggested that the development of a local food system has the potential to impact a local economy through substitution and agricultural growth at the local level leading to increased economic gain (Martinez et al. 2010). Improved social and physical well-being are also common motivations for championing local food system development. According to Feagan (2007), local food movements can be used to help communities feel connected to the food system in midst of change due to globalization. Movements across cities such as "buy local" or "know your farmer" attempt to connect people to their food and to each other. Moreover, Pothukuchi (2004) suggested that developed local food systems are more socially equitable and preserve cultural heritage therefore increasing social well-being.

Other scholars suggest a positive effect on food access through decreasing food cost and increasing availability of fresh foods, particularly in areas where such foods may be lacking (Low et al. 2015; Wang, Qui and Swallow, 2014). Moreover, increasing food access could potentially decrease food insecurity within a community. Additionally in regards to the environment, local food is often thought to be more environmentally-friendly (Thilmany, Bond and Bond, 2008) by reducing transportation, greenhouse gases and pesticide use (Low et al. 2015).

However, narratives of local food system development, both from academics and from consumers, may often wear rose-colored glasses. For instance, research has demonstrated that local food does not always mean equitable food access, economic gain or environmentally sustainable growing and distribution practices (Low et al. 2015; Lowery, Sloane, Payan, Illum, and Lewis, 2016). Furthermore, some scholars have suggested a trap within local food system research in which they believe that some aspects of the local food system literature inherently assumes that localized food production is inherently superior to the international, industrialized food system that emerged during the second half of the 20th century (Born and Purcell, 2006; Purcell and Brown, 2005).

Regardless of the rationale for development, local food systems are complex and encompass various entities within a community to enable its development and maintenance. Such entities include, but are not limited to businesses, food producers, consumers, community members of all ages, civil society groups, and governmental sectors (Pothukuchi, 2004). These different actors play a variety of roles in its development and maintenance. For instance, the private sector actors include food producers, manufacturers, distributors, and retailers. Local food producers may grow foods preferred by their local markets and use methods desired by local consumers.

Civil society also plays an important role in the development of a local food system. Durrant (2014) suggests there are four main roles civil society plays in the development of a

3

local food system: grassroots innovations, niche development, normative contestation, and regimen reformation. Table 1 presents the definitions of each role. Further, civil society has the potential to influence other entities—government, producers, and community members--through their identified roles in the development of the local food system.

The public sector's federal, state and, local governments can also encourage a local food system through policymaking. Specifically, local-level governments influence the local food system through such different regulatory, programmatic, and incentive methods as zoning permits, operational policies for farmers' markets, land allocation for community or urban gardens, and compost regulations (Martinez et al., 2010). Having further impact on a local food system are such public utilities and infrastructure as transportation, water/sewage, and waste disposal (Hodgson, Caton Campbell, & Bailkey, 2011).

The Case of Dayton, Ohio

This research examines recent developments in the local food system of the post-industrial city of Dayton, Ohio. Dayton is located in the southwestern part of the State of Ohio near the intersection of two major interstate highways and is roughly 70 miles west of Columbus and 60 miles north of Cincinnati. Dayton was a center of innovation throughout much of the late 19th century and early 20th century, home to such inventions as the airplane, the cash register, the electric car starter, and the soda-pop tab ("Dayton Innovation Legacy," 2016). The city housed the headquarters of companies related to these inventions, namely National Cash Register and AC Delco until the end of the 20th century. Dayton was also a home to numerous manufacturing operations, which generally focused on automobile products. Beginning in the final quarter of

the 20th century, nearly all manufacturing, and the related administrative offices for these companies, left Dayton.

The City of Dayton experienced a decline in population in the final quarter of the 20th century as a result of the combined effects of the loss in manufacturing and sustained, patterned suburbanization pressures. Former Dayton residents either departed for suburban communities of the greater metropolitan region or out of the region completely. As of 2014 the US Census estimated the City of Dayton population at 141,003 people, a roughly 46% reduction from the city's population height in the 1970 Census. Comparably, Montgomery County, Dayton's home county, lost only 12% of its total population during the same period (US Census Bureau 2014; Forstall 1995).

Sprawl development and the departure of manufacturing jobs in Dayton throughout the final quarter of the 20th century brought other problems to the central core. In 2014, about 35.3% of Dayton residents resided in poverty compared to 13.5% nationwide (US Census, 2014). Furthermore, grocery stores would often follow wealth away from the central core and into the deeper suburbs (Morland, Diez Roux, and Wing 2006) contributing to a decline in food access. This hollowing effect negatively affected the way that many residents of the region's central core accessed food. Often, this problem is classified by scholars and activists as a food desert. Specific definitions and conditions of food deserts remains contested within scholarship, namely Lucan et al. (2013) and Osorio, Corradini, and Williams (2013). In spite of these definitional discussions, conceptual level ideas of food deserts seem to apply to many areas within the City of Dayton as well as several of its immediate neighbors.

High poverty rates and lack of food availability potentially contribute to the high food insecurity rates within Dayton. For example, in 2015 the City of Dayton ranked 11th for cities experiencing food hardship in the US (Rosso, 2016). In recent years, several regional organizations have rallied behind responding to these problems. Additionally, at least one local political leader prioritized local food issues as a major area of interest. Moreover, several community urban gardens have begun in areas with high rate of food insecurity.

As noted above, actors within a local food system are often diverse and disparate. The main aim of this case study was to document and explore the perceptions of the various private, public, and civil society actors working to develop a stronger local food system in a Midwestern, post-industrial city. To the authors' knowledge, no scholars have previously examined Dayton's food system. This framework may be of use to other communities with similar characteristics in the midst of their own local food system development.

Methodology

This study employed qualitative research methods to collect and analyze the data and comprise a suitable approach for researching accounts, experiences, beliefs, and priorities (Ziebland, Robertson, Jay, & Neil, 2002). Qualitative research methods allow themes to emerge during data collection, analysis, and interpretation (Patton, 2002). By using qualitative methods, the researchers were able to study aspects of the Dayton food system in both depth and detail. In addition, the researchers approached the fieldwork first by becoming aware of any preconceived bias, which contributed to the depth, openness, and detail of qualitative investigation (Patton, 2002, p. 14).

The instrument used for data collection was a general interview guide listing the questions or issues to be explored during the interview (Patton, 2002, p. 343). The researchers constructed the general interview guide as a topical list so that each participant was asked similar questions related to the Dayton food system. Questions included in the interview guide were developed to obtain a detailed snapshot of the food system in Dayton, future needs, and possibilities. A trained interviewer administered the interviews to people associated with either the public, private, or civil sector of the Dayton food system. These interviews were conducted in 2012, and as such, reveal information about the state of the Dayton food system at that time. The interviews were audio recorded and transcribed verbatim. Three trained qualitative researchers completed the data analysis described here. The researchers read all interview transcripts numerous times to determine relevant and consistent findings related to the Dayton food system. In total twenty-two interviews were transcribed, including seven public-sector officials, nine representatives from different civil society organizations, and six interviews from businesses or food producers.

Grounded theory method was the research strategy used for this study, and several grounded theory approaches were used to analyze the data. Coding, constant comparison, and memo-writing were used for the data analysis. In their publication *The Discovery of Grounded Theory*, Glaser and Strauss (1967) claimed the strategies they used were to develop theories from research grounded in data rather than from deducing testable hypotheses existing in the data. Glaser and Strauss proposed that qualitative analysis could generate theoretical explanations of social processes (Charmaz, 2006). The methods of grounded theory allow concepts and themes

to be identified and developed throughout the research process. The theory related to the Dayton food system was created through careful observation of the phenomenon (Ezzy, 2002).

Coding of the data was the first step of the analysis. Each researcher completed the initial round of coding individually. The type of coding used by the researchers in the data analysis was focused coding, which uses the most significant and/or frequent earlier codes to analyze and manage the data and which requires decisions about which initial codes make the most analytic sense for categorizing the data (Charmaz, 2006, p. 57). As Charmaz indicated, "a grounded theorist creates qualitative codes by defining what he or she sees in the data" (Charmaz, 2006, p. 186-187). Next, the researchers collectively created focused codes that allowed for important concepts related to the food system to emerge. To accomplish this, the researchers developed a code bank for keeping track of all of the codes, for defining the codes in simple terms, and for creating uniform coding.

Another tool of grounded theory employed by the researchers was the constant comparative method. The constant comparative method is, "a method of analysis that generates successively more abstract concepts and theories through inductive processes of comparison." Comparisons then constitute each stage of analytic development (Charmaz, 2006, p. 187). Constant comparison allows the researcher to make analytic sense of the data and gain a broader awareness of ideas that might be imposed on the data. To successfully employ constant comparison, the researcher must avoid assuming that respondents are denying facts about themselves, but rather try to understand where the respondents are coming from before making judgments on their actions and feelings. The researchers completed constant comparison of data with data, data with category, category with category, and category with concept. Constant comparison of the data was performed throughout the entire data analysis process.

The final step in data analysis employed by the researchers before formally drafting this paper was memo-writing. Memo-writing is an important intermediate step between data collection and writing drafts of papers because it prompts researchers to analyze data and codes early in the research process (Charmaz, 2006). Using memo-writing allowed the researchers to think about the Dayton food system in much greater detail. It can assist in the development of follow-up questions that can be explored with future interviews. Memo-writing assists in the constant comparison of the data by comparing concepts and themes. In order to create good memos, the researchers wrote the title of each memo specifically and focused on what was going on within the interview, what the participant was saying, and what connections could be made with other participants (Charmaz, 2006).

Results

Results for each of the three identified sectors of Dayton, government, civil and private/business, will be reported individually. Different themes relating to the development of the local food system emerged under each sector and are reported in their relevant section.

Government results

The research team examined the interviews of seven public-sector officials, representing a diversity of municipal-level and county-level staffers in the greater-Dayton region. Additionally,

the team transcribed one interview of a public-sector staffer active in the food system developed in the greater Columbus region. This person worked in the Dayton-region but his office was in Columbus. Three major themes emerged through the analysis of the public-sector transcripts.

Theme 1: Difficulties in regional public-sector advocacy

A number of public sector and civil society actors rallied around the creation of the Montgomery County Food Policy Coalition (FPC) in the early 2010s. Despite an initial burst of activity, the respondents reported that the FPC struggled to affect positive change in the region's food system. Rationale for the lack of efficacy varied, but generally surrounded three major areas. First, no dedicated staff existed to implement the FPC's agenda. One respondent, a senior political appointee working for one of the county's elected officials, served as the FPC's de facto executive director. This respondent's comments echoed a struggle to advance the FPC's agenda while completing her other job tasks. Second, several respondents indicated that the loose organizational structure of the FPC created major difficulties in directing volunteers with disparate goals towards common objectives and tasks. One respondent noted, "Everyone could see that there were common goals and you know that it's very [difficult] when you put these committees [together]-there are so many overlaps that were it [sic] becomes almost quirky and difficult." Third, several respondents suggested that a number of goals commonly held by advocate organizations were possible only if extra-organizational funding could be secured. Another respondent noted, "We need . . . just need more money to get some of our programs off the shelf. We have some really good ideas—we just need more money to get them done. We need more money for the Dayton public schools, which are empty buildings and into an [local

food] incubator for all kinds of people. We need more money to give our public school children fruits and vegetables."

Theme 2: Current Existence of Innovative Policies and Programs

Beyond the emergence of the FPC in the early 2010s, a number of respondents identified several more recent innovative programmatic or policy changes to improve the local food system. The City of Dayton's Lot Links, for example, allowed residents to purchase vacant city-owned lots at very low prices, potentially providing land tenure for urban agriculture. Five Rivers Metro Parks, the regional public parks' governance organization, also maintained a public market called Second Street Market, providing vending space for local producers. Additionally, Metro Parks actively encouraged the development of community gardening across the region, as well as forming a gardening and food education summer program called City Beets, a program targeting inner city youth. Finally, Montgomery County launched a "Buy Local" branding campaign encouraging residents to patronize local food producers, and it also implemented a grant-funded program to encourage healthy food access in urban corner stores. One respondent, speaking of the branding campaign, stated that the campaign's goal was to "shift 10% of your purchasing power towards locally produced food-there is beer, and eggs, and chickens-and people don't think about . . . well, we are in Ohio and there is only three months of the year in which you can grow thing and but there [sic] is way more that can be grown or made, and we [sic] are going to raise that awareness."

Theme 3: Presence of Low-Hanging Barriers

Finally, most respondents identified a number of barriers that concerted public-sector action might overcome. On face value, a number of these barriers appear to be easily achievable, assuming sufficient political, administrative, and budgetary will. These barriers include, but were not limited to the following: resistance to modifying zoning code to allow for varying forms of urban agriculture and/or animal husbandry; efficient demolition, parcel consolidation, foreclosure, and resale of vacant/abandoned urban land; incentives programs that enhance federal food assistance programs by supporting local producers; limited small business growth support for emerging local food producers/manufacturers. Additionally, most respondents stressed that food literacy about healthy foods was a significant barrier for many people in the Dayton region. One respondent noted the following when speaking about primary school students: "When I go to Dayton Public Schools, some of them do not know what a whole carrot looks like. They do not know what whole vegetables look like, and we are denying an entire generation of access [sic] to education about food, nutrition, you are denying them the ability to succeed in life because they do not have adequate nutrition." Finally, several respondents indicated that the general lack of empirical documentation of the current state of Dayton's local food system also formed a barrier to progress. Respondents indicated that Montgomery County Public Health regularly collected a minimal amount of health-related data on the food system, but they also indicated that these data were insufficient when seeking grants, either intra-regionally or extraregionally, to implement potential projects.

Civil Society

The research team examined interview transcripts of nine representatives from different civil society organizations currently working to develop a local food system. Representatives were from such organizations as Ohio State University Extension, religious organizations, and food-related community non-profits. Within the civil society group, three main themes emerged.

Theme 1: The value of collaboration and involvement of multiple sectors

Representatives from civil society expressed the importance of having multiple sectors involved in forming and maintaining a local food system. Sectors mentioned included food producers, academic entities, community members, members of local government, and representation from civil society, such as community organizations. One participant said, "It's a really great thing when you can get just not a nonprofit but when you can get multiple groups together working on something—you're going to come up with a lot more and stronger plan [sic] and have the right kinds of needs met." They saw the local food system as complex, and therefore, to appropriately address all aspects of the development and maintenance of a local food system, multiple sectors needed to be actively involved and working together. Another respondent indicated, "I mean there's definitely walls for sure, but I mean people can do it. But it's more than just one person or one place. Collaboration between UD [The University of Dayton], Growing Power, Metroparks, and UpDayton is like, that's like a home run. You know what I mean? And sometimes the people that make decisions over there need to take the blinders off and realize that they should be talking to other people or inviting other people to the table on this." The representatives from civil society also focused on the importance of having a local food system that integrates people from different ethnic and socio-economic groups. They felt it was extremely important to have diversity in the local food system, and for this food system to function well, it has to involve and reach the needs of all people—people from different socio-economic classes and the refugee and immigrant populations. Several civil society participants said they felt the current local system catered mostly to the wealthy and was not culturally-appropriate or accessible to other groups of people.

Theme 2: Main drivers of increasing the local food system

The main drivers for the local food system that were identified by the civil society representatives included supply and demand; motivation to purchase local food; education and awareness about healthy and local food; food access and availability; and human, financial, and social resources. Respondents suggested these drivers were not independent of each other and often appeared interrelated. For example, the representatives often discussed how demand for local food is imperative and that currently demand was coming from one entity: the upper class. One participant said, "I believe there are ways to get food to the community, but it's not gonna last if nobody is buying it [sic]." They expressed how motivation for purchasing such foods needed to be increased, and that this could be accomplished through increasing education and awareness of local and healthy foods. One respondent indicated, "getting them [community members] to understand that if you just, you know, if you do it right you're not spending more money on healthy food. That's the biggest. Old habits die hard, and it's really hard to tell somebody that five bags of chips for \$2 is not the same as five bags of rice that can feed you for

how long. Yeah, so, it's going to be an education wall to climb. Just the fact of . . . I mean it's almost like being a salesman. You got to really pitch what's in it for them. Otherwise you're not going to win their attention." Furthermore, food access and availability was seen within the context of people having transportation to a market, having markets close to where people reside, and having land available to grow food locally and in an urban area. For example, another respondent indicated, "I think [one of the main concerns in our food system] it's just providing food to the places and people that cannot access it. Umm . . . so the food deserts and you know places that might not be food deserts but where people still can't access the food that they need." Another aspect mentioned was having foods available that were culturally-appropriate to the members throughout the community. Lastly, representatives discussed the importance again of collaborating across entities, having money available to help drive the local food system through the development of markets and land acquisition, as well as through social aspects. A third respondent said, "I mean, as far as missing one thing, it's just that people aren't connected to where the food comes from. So it's hard to do that, but we do have the space to do it. I mean, we have, you know, vacant lots or, you know, once places are torn down, this empty space, et cetera, et cetera. There's no driving force. There's no catalyst. There's no single entity to offer that opportunity. The social aspect involved the inclusion of all members of the community and working together."

Theme 3: An ideal local food system for the area

Lastly, civil society representatives discussed an idealized local food system for the Dayton region. The ideal local food system would be culturally-appropriate, include all groups of people,

address food insecurity, integrate environmental and economic sustainability, and incorporate downtown grocery stores, community and urban gardens, farmers markets, and allocation of vacant lots. The main reasons this food system had not formed were the reasons aforementioned: lack of motivation, education, awareness, cultural-appropriateness, and involvement among community members. A participant who works with the refugee populations in Dayton commented on cultural aspects of the Dayton food system, saying, "Sometimes we have issues with that with Muslims, as we don't have any places locally with pre-made Halal food. That's why we try to stock the staples when they first arrive, just basic stuff." She continued to speak about changing the local food system: "But if you can get their habits changed, then the market place will change. No store is going to keep stocking tomatoes if no one buys them—then the stores aren't going to stock them. So it has to come from people, they have to change their behavior."

Business/Producer Results

There were six interviews transcribed that were of individuals in the business or producer sector. These individuals represented such organizations as restaurants, farms, community gardens, and food processing centers. Following the analysis of the interview data, three themes emerged related to the Dayton food system.

Theme 1: Education as a critical need in the community

Participants discussed the need for several types of education in the community, but the type of education that should have the biggest impact is increasing the awareness of the benefits of

eating well. Producing healthy local foods is meaningless if the community does not understand the benefits of these foods. This was discussed by one participant, who stated, "You need to have consumers, and in order to have consumers, you need people who are educated about the benefits of your product, and a lot of that is tied to the health industry. As people become more aware of the problems their bodies are having because of what they are eating, that will help." Once the community has increased awareness of the benefits of these foods, the education then shifts to food production. In particular, respondents mentioned that the low-income population had a high need for healthy, less-processed foods, as well as a need for education about cooking from scratch and cooking foods that are unfamiliar to them. One participant stated, "Most of the people in the food deserts do not even know that you should care about the food they are consuming, or it is so foreign to them having a whole fruit or vegetable instead of something processed that they think they do not like it or do not want it."

Additional suggestions for the types of education that can be provided in the community included farming and gardening, food safety, and recycling. If community members were receiving more education on gardening, this might spark an interest in the food they are producing. One participant highlighted this point, saying, "We are hoping through educating them out in the garden and out in the open environment that they will take an interest in the food and at some point during their time they will be getting snacks from the garden ... so they get a chance to try what they created."

17

Theme 2: Community motivation needed

It is important to work towards motivating the community to not only maintain existing food system resources, but also to grow them. Participants discussed an idea that overlaps with the educational needs in the community, which is that people usually are not interested in nutrition until they have a concerning health problem. However, it takes both increased awareness of the issues through education and then motivation of community members to act on this awareness. In addition, respondents discussed as priorities community bonding, taking care of each other, and interacting with each other as a community. One participant noted, "When you get them involved in making their community better, they get a sense of ownership . . . when you get the kids involved in what you're doing . . . they protect it."

Finally, another area discussed that involved community motivation concerned motivating individuals working in the food system environment to work together. Participants discussed their frustration with people who are doing similar things in the community, but who are not willing to work together. If individuals could start to work together more, that could aid in the growth of the local food system.

Theme 3: Varieties of resources both available and needed

Once there is effective education on the need for consuming local foods, and once the community is motivated to support it, additional resources are needed to promote this growth. One critical resource in the community is land to support local agriculture. The city of Dayton has many vacant lots that citizens could use for urban agriculture. Fortunately, many of these vacant lots can be purchased inexpensively--or can even be obtained at no cost. In addition, the

city of Dayton has a Vacant to Vibrant Program, an urban agriculture project. One participant stated, "... all the land that the city has and that they are just wanting to get rid of. They have many acre plots available that they would basically give for free." Another participant noted,

"... one part of the land we bought from the city for a portion of the back taxes. Then the plots of garden space we have, we got free land-use agreements."

A second community resource discussed by businesses and producers was the involvement of the University of Dayton in growing the local food system. The University could serve as a resource to the community in providing funding, faculty-led research on growing the food system, and creating class projects that require students to volunteer in the community. However, the perception of the participants was that the University does very little to support the local food system. One participant observed, "I think the University of Dayton (UD) can do a lot more. I think their presence as a community-builder in Dayton is pretty much non-existent. Another participant stated, "I have almost encountered nothing but resistance from UD, but I think that there are enough professors at UD who care and who have knowledge that would help ... and/or are willing to incorporate class projects into something like that."

Finally, participants discussed developing resources and continuing to grow the local food system in Dayton to support a sustainable community that is not dependent on the government or on subsidies as a primary method of supporting current efforts. One participant said, "I believe that you just do not hand things to people. I believe in the teach-me-how-to-fish thing. Don't just hand things to people—make them earn it." Another participant concurred: "It is all about if we can create a system that is stable enough to make a profit each year and not need government assistance. I think that getting rid of subsidies would be the best thing that

could be done for local food." And yet, participants also discussed needing governmental support to continue growing. When asked about how the government could assist the process, one participant said, "First off, they can keep us where we are and not squash everything that we have done. They could change the zoning to make it easier for people to do agriculture . . . just making it easier for people to grow the own food and sell their own food." Other resources discussed by the participants included needing more volunteers to work in the community, funding and grants to support growth, and support for local composting.

Similarities and differences

Through analysis a number of similarity and differences emerged among the three sectors.

Main Similarities

Three main similarities emerged among the three sectors examined. First, respondents indicated that education of the community was important, both in terms of nutrition education and awareness about the food system. For government respondents, this was in terms of what public entities are already doing in nutrition/food education and in campaigns supporting awareness at the community-member level. For respondents in the civil arena and in production, it concerned teaching community members about nutrition and healthy foods to support the food system. Examples within the civil society sector included educational programming on gardening and food education summer programs.

Second, respondents desired greater collaboration among community entities in developing a food policy council and/or an overall willingness and ability for all entities in the

local food system to work together. However, this collaboration was seen as being limited by both administrative and financial reasons, as well as differences of priority in agenda setting. These limitations led to an eventual stalling of collective action. And yet, despite these issues, the government and civil society respondents reaffirmed the need for collectivized action to realize significant improvement of the region's food system.

The third similarity was the noted limitations in resources for the development of a local food system: human, infrastructural, educational, and financial. All entities indicated a lack of human and financial resources, as well a lack in collaboration and of policies supporting the local food system. Specifically, government respondents discussed the limitation in governmental resources and ability to develop a functional food policy coalition; civil society respondents discussed the limitations within the public and private sectors, such as lack of collaboration, lack of land use, lack of access to foods, and limited transportation; producers pointed out limitations in local policies to support the system, as well as lacks in human and financial resources.

Main differences

Major differences seemed to emerge in terms of the focuses of the respective organizations represented by the respondents. Government respondents identified strongly the inability to have the financial and human resources within the public sector to adequately support the local food system and create a sustainable and active food policy council. Civil society respondents discussed the need for the local food system to be culturally-appropriate and include people from all socio-economic and ethnic backgrounds as well as all local geographical areas. These ideas were not as strongly identified in the interviews with the producers or governmental interviews.

Finally, the producers discussed the inability of a local food system to be successful if it relies on the public sector for development and maintenance. And they spoke in detail about the need for local universities and community colleges to increase their role in the development of the local food system. The government and civil society participants did discuss the need of the local universities' involvement, but they were more positive in terms of their current role.

Discussion

The study suggests that individuals, and the organizations they represent, desire to enhance Dayton's local food system. However, their perceptions of the needed resources and who should be involved differ, potentially inhibiting the local food system's development and progression. One difference is that, while the public sector and the civil society sector generally believe in the need for collective action marshaled broadly from the top-down, the sector of producers generally, promotes a more grassroots movement towards growth of the local food system. At the same time, producers believed that food literacy is an important part of this growth. Overall, then, each sector desires the same outcome—a growing local food system that reaches all citizens—but the two sectors have different views on their respective roles in this process.

This difference of perspective is intriguing in light of the intellectual trap suggested by Born and Purcell (2006) around the idea of local research, where scholars and activists presume a priori that local scale is inherently superior to the international, industrialized food system. We support the need for such skepticism within scholarly work in examining the potential of local food system development. However, we contend that such argument of scale of change suggested by the authors' urban planning background fails to account for the motivations and agenda of those within a given community not trained or employed exclusively as urban planning professionals. Rather, our findings suggest actors within that community may consider different outcomes as desirable when considering the development of their local food system. To develop a local food system that takes into account the history of the community and its current needs as well as thoroughly examine the potential ramifications of such a food system on the economic, social and physical well-being, food access and environmental sustainability takes participation from multiple levels.

Such a notion seems to align with the potential tendency of public sector led local food movements to affix themselves to neo-liberal conceptions of change. Examples of such neo-liberal conceptions include a focus on consumer choice, apolitical positioning of movement development, and compelling corporate cooperation through incentives (Guthman, 2008). Part of the disconnect between respondents in the public sector and the other actors might be attributed to the changing role of local government over the last thirty years. Funding subsidies from the federal government to local governments began to dry up during the early Reagan administration (Koven & Lyons, 2003). This compelled local governments to begin to outsource some of their operations and/or form public-private partnerships. In effect, this shifted responsibility for many types of community action upon civil society actors. However, intra-regional coordination between local governments, often faced with declining budgets, and scattered community groups with disparate goals can be quite difficult (Grossman & Holzer, 2015). Within the context of the local food system, coordination with local businesses is problematic because businesses' primary focus is their bottom line, and they often have a contentious relationship with the regulatory

aspects of local government. Analysis of public sector interviews suggested they may be compelled to think exclusively inside the neo-liberal box and are consequently trapped.

Therefore, looking at the situation in this Midwestern city from the outside, it seems that each sector wants the same thing, but due to both a lack of communicating their perspectives and a lack in true collaboration, separation has occurred and momentum towards developing this local food system has been hindered. Grossman and Holzer (2015) suggested that policy entrepreneurs are necessary within public and civil society organizations to promote community change. Our findings suggest that these people may already exist within several organizations; however, findings also indicate that they may not have the political, administrative, and financial capital to push forward with their plans. In addition, it can be argued that councils on food policy allow for trust building through more effective communication across sectors and through a more formalized process for ensuring that goals are reached. A possible first step would be to invite stakeholders from the different sectors to the table to communicate their thoughts and perspectives and to reconcile differences. From here, policy entrepreneurs could begin to identify short-term and long-term outcomes and supporting activities possible with the bounds of current resources (i.e. human, environmental, and financial).

Although this study cannot be generalized to other communities, it demonstrates the complexity of developing a strong local food system to address issues within a particular community. The community addressed in this study has each sector working towards the same general goal. However, because of limited resources, a lack of collaboration and no guiding council on food policy, progression is stunted. As communities begin the development of strong local food systems, an examination of each sector's limitations and resources can provide an

overall scope of a community's assets already available, assets still needed, and ideas on how to bring all facets together for the good of the local food system as a whole. Clearly, this research shows the importance of collaboration and communication within a community and the development of trust among its sectors.

Conclusion

In this research, the current state of development in the local food system in Dayton, Ohio was examined. To accomplish this, an examination of interview transcripts from participants in the three disparate sectors of the local food system: public sector, civil society sector, and the sector composed of local business owners and food producers was performed. Findings suggest significant alignment from these various actors to encourage the growth of Dayton's local food system. However, the respondents observed a number of barriers to this development. These barriers are disparate in nature, including but not limited to administrative and political barriers, lack of funding, unequal education about the benefits of healthy foods, and varying consumer preferences. While not generalizable to other communities, this research can serve as both a methodological model, as well as provide a conceptual framework for understanding development of a local food system on a broader scale.

Note

The Ohio food policy coalition existed under Governor Ted Strickland's administration, but was disbanded by the incoming Kasich administration in 2011. The Kasich administration has not reformed it as of the fourth quarter of 2016.

Acknowledgements

We would like to thank Josh Keller and Dr. Daniel Fouke for their work on this project and all of the participants for engaging us in discussion and thought.

Funding

This work was not supported by any organization or group.

References

Born, B., & M. Purcell. 2006. Avoiding the local trap scale and food systems in planning research. *Journal of planning education and research*, 26(2), 195-207

Burgan, M. and M. Winne. Doing food policy councils right. 2012. A guide to development and action". Mark Winne Associates.

Charmaz, K. 2006. Constructing grounded theory: A practical guide through qualitative research." *SagePublications Ltd, London*.

Community Food Projects Competitive Grant Program (CFPCGP). http://nifa.usda.gov/program/community-food-projects-competitive-grant-program-cfpcgp (accessed December 15, 2015).

Community Food Systems. Farm to School Grant Program. "January 6, 2016." (n.d.):http://www.fns.usda.gov/farmtoschool/farm-school-grant-program (accessed January 20, 2016). DaytonInnovationLegacy.2016.Retrievedfromhttp://www.daytoninnovationlegacy.org/index.html

Durrant, R. A. 2014. Civil society roles in transition: towards sustainable food?. PhD diss., University of Sussex.

Epstein, R., M. Gao, and S. Han. 2014. Double Up Food Bucks in Michigan. *GIS Posters*. Poster 119. http://openscholarship.wustl.edu/gis_poster/119

Essex, A., D. Shinkle, and M. Bridges. "Harvesting Healthier Options." State Legislative Trends in Local Foods, 2012-14. http://healthyfoodaccess.org/find-resources/library/harvestinghealthier-options-state-legislative-trends-in-local-foods. (accessed January 29, 2016).

Ezzy, D. 2002. Data analysis during data collection. *Qualitative analysis: Practice and innovation* 60-79

Feagan, R. 2007. The place of food: Mapping out the 'local' in local food systems. *Progress in Human Geography*, 31(1):23–42.

Forstall, R. L. 1995. Ohio Population of Counties by Decennial Census: 1900 to 1990. Retrieved from http://www.census.gov/population/cencounts/oh190090.txt.

Glaser, B., and A. Strauss. 1968. The discovery of grounded theory. *Strategies for qualitative research. London: Weidenfeld and Nicolson*.

Grossman, S. A. and M. Holzer. 2015. *Partnership Governance in Public Management: A Public Solutions Handbook*. Routledge.

Godette, S. K., K. Beratan and B. Nowell. 2015. Barriers and Facilitators to Local Food Market Development: A Contingency Perspective. *Journal of Agriculture, Food Systems, and Community Development, 5:* 79-96.

Guthman, J. 2008. Thinking inside the neoliberal box: The micro-politics of agro-food philanthropy. *Geoforum* 39, no. 3: 1241-1253.

Hodgson, K., M. Caton Campbell, and M. Bailkey. 2011. Urban Agriculture: Growing Healthy, Sustainable Places. Chicago, IL: American Planning Association.

Holloway, L., M. Kneafsey, L. Venn, R. Cox, E. Dowler, and H. Tuomainen. 2007. Possible food economies: A methodological framework for exploring food production-consumption relationships. *Sociologia Ruralis*, 47:1-19.

Hughes, D. W., C. Brown, S. Miller, and T. McConnell. 2008. Evaluating the economic impact of farmers' markets using an opportunity cost framework. *Journal of Agricultural and Applied Economics* 40(01):253-265.

Koven, S. G., and T. S. Lyons. 2003. *Economic development: Strategies for state and local practice*. International City/County Management Association (ICMA).

Low, S.A., A. Aaron, E. Beaulieu, N. Key, S. Martinez, A. Melton, and B.R. Jablonski. 2015. Trends in U.S. Local and Regional Food Systems, (Administration Publication No. AP-068), U.S. Department of Agriculture, Economic Research Service: Washington, D.C. Retrieved at http://www.ers.usda.gov/media/1763057/ap068.pdf Lowery, B., D. Sloane, D. Payán, J. Illum, and L. Lewis. 2016. Do Farmers' Markets Increase Access to Healthy Foods for All Communities? Comparing Markets in 24 Neighborhoods in Los Angeles. *Journal Of The American Planning Association*, 82(3):252-266.

Lucan, S., A. Maroko, J. Bumol, L. Torrens, M. Varona and E. Berke.

2013. Business list vs ground observation for measuring a food environment: saving time or waste of time (or worse)? *Journal of the Academy of Nutrition and Dietetics*, 113(10): 1332-1339.

Martinez, S., M. Hand, M. Da Pra, S. Pollack, K. Ralston, T. Smith, S. Vogel, et al. 2010. Local food systems: concepts, impacts, and issues. United States Department of Agriculture Economic Research Report Number 97.

Metcalf, S. S. and M. J. Widener. 2011. Growing Buffalo's capacity for local food: A systems framework for sustainable agriculture. *Applied Geology*, 31(4):1242-1251.

Morland, K., A. Diez Roux, and S. Wing. 2006. Supermarkets, other food stores, and obesity the atherosclerosis risk in communities study. *American Journal of Preventive Medicine*, 30(4):333–339.

"National Institute of Food and Agriculture." Community Food Projects Competitive Grant Program (CFPCGP). (accessed January 29, 2016). http://nifa.usda.gov/program/community-food-projects-competitive-grant-program-cfpcgp.

Osorio, A. E., M.G., Corradini, J.D. & Williams. 2013. Remediating food deserts, food swamps, and food brownfields: helping the poor access nutritious, safe, and affordable food. *AMS review*, 3(4):217-231.

Patton, M. Q. 2002. Designing qualitative studies. *Qualitative research and evaluation methods* 3: 230-246.

Pothukuchi, K. 2004. Community Food Assessment: A first step in planning for community food security. *Journal of Planning Education and Research* 23:356-377.

Purcell, M., and J. C. Born. 2005. Against the local trap: scale and the study of environment and development." *Progress in Development Studies* 5(4):279-297.

Rasmussen, P., S. Clary, A. Kurki and R. Daines. 2003. The next food systems agenda: A western grassroots perspective. *Journal of Agriculture, Food Systems, and Community Development* 3:235-247.

Rosso, R. 2016. *How hungry is America? FRAC's national, state, and local index of food hardship: June 2016.* Washington, D.C.: Food Research and Action Center

Schiff, R. 2008. The Role of Food Policy Councils in Developing Sustainable Food Systems. *Journal of Hunger & Environmental Nutrition* 3:206-228.

Thilmany, D., C. A. Bond and J. K. Bond. 2008. Going local: Exploring consumer behavior and motivations for direct food purchases. *American Journal of Agricultural Economy*. 90(5):1303–1309.

Thompson Jr, E., A. M. Harper, and S. Kraus. 2008. Think Globally, East Locally: San Francisco Foodshed Assessment. American Farmland Trust.

US Census Bureau. (2014). Population Estimates. Retrieved from http://www.census.gov/popest/data/index.html. "USDA ERS - Supplemental Nutrition Assistance Program (SNAP): Economic Linkages." USDA ERS - Supplemental Nutrition Assistance Program (SNAP): Economic Linkages. April 23, 2015. http://www.ers.usda.gov/topics/food-nutrition-assistance/supplemental-nutritionassistance-program-(snap)/economic-linkages.aspx.(accessed January 20, 2016).

Ziebland, S., J. Robsertson, J. Jay, and A. Neil. 2002. Body image and weight change in middle age: a qualitative study. *International journal of obesity and related metabolic disorders: Journal of the International Association for the Study of Obesity* 26: 1083-1091.

Wang, H., F. Qui, B. Swallow. 2014. Can community gardens and farmers' markets relieve food desert problems? A study of Edmonton, Canada. *Applied Geography*, 55:127-137.

Table 1	Civil	society's fou	r roles in	develop	ment of a l	local food	system
Lanc 1.	CIVII	society s lot	II TOICS III	uevelop	ment of a	100ai 100u	system.

Civil society's roles	Definition
Grassroots innovation	Experimentation in the prospective spaces
	of civil society niches, with novel, more
	sustainable configurations of food
	provisioning that respond to local
	situations and the interests and values of
	the communities involved
Niche development	Facilitation of learning and capacity-
	building around grassroots innovations,
	thus aiding the strategic development
	(including up-scaling and replication) of
	alternative systems of food provision
Normative contestation	Application of normative pressure to the
	public, policy-makers, and food industry,
	which undermines existing unsustainable
	practices and shifts favor towards
	alternative systems, thereby destabilizing
	incumbent food regimes
Regime reform	Enablement of regime actors, including
	mainstream businesses and public bodies,

to adopt and embed more sustainable
configurations of technologies, practices,
and organizational arrangements, thus
leading to the reform and re-orientation of
incumbent food regimes.

Source: Durrant, 2014.