Urban Agriculture: The Impact of Local Food on Community Life

by

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Abstract

The urban agriculture and local food movement is gaining momentum in communities across the United States. There is an overwhelming feeling of community "readiness" for local food. Watauga County, in particular, successfully encourages and supports local agriculture practices. There is a market demand for producers to sell goods and numerous opportunities for consumers to eat locally produced food. This literature review provides a comprehensive study of local food system efforts in Watauga County through the examination of ways local food is currently integrated into the landscape. This review analyzes the benchmarks for success and failure, and the recognized impact of local food on community life ultimately determines the social, environmental, and economic reasons for continuing to produce quality food for community benefits.

Keywords: local food systems, urban agriculture, community, social, environmental, economic

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I. Introduction

Consumer demand for food that is locally produced has generated an increased interest in communities across the United States. In the past few decades, there has been a resurgence and rebirth of locally based agriculture (Norberg-Hodge, Merrifield, Gorelick, 2002). Communities are seeing a reflection of this movement in their landscapes, through community gardens and restaurants, farmers markets, and CSAs. Crops can be grown essentially anywhere, and urban agriculture is celebrated because the social, environmental, and economic implications are far-reaching and effective.

A. Background

Prior to the twentieth century, communities had a direct and personal relationship with their food. The products that communities consumed were grown within the region and nearly everything eaten was locally produced. Communities were in touch with growing conditions of their food, as they often knew the farmers harvesting the crops. Foods followed the seasons and very few foods were processed and packaged. This locally based lifestyle changed as transportation became quicker and cheaper both directly (enhancements in transportation technologies) and indirectly (innovations such as refrigeration incorporated into transportation vehicles). Food systems expanded in distance and growing communications between different cultures moved products and created new demands (United States Department of Agriculture, 2010).

Following World War II, the United States' food system shifted from local to national/global food sources. Regional and global specialization—spurred by lower transportation costs, improvements in low-cost processing and preservation technologies (refrigeration, canning, chemicals, etc.), cheaper land and labor, better growing conditions,

longer seasons—reinforced and facilitated transition to nonlocal food systems. Food was no longer tied to place. Consumer cognizance of local producers declined, as brand names evolved and instilled confidence in the food system. People became dependent on packaged and branded foods, and this is where shoppers' trust lie. It wasn't until the end of the twentieth century when people began to consider the negative aspects of processed foods (United States Department of Agriculture, 2010).

In the last decade, communities have seen a resurgence in local food in an almost fad-like fashion, and the growing interest in local sourcing is a result of several movements: Social, Environmental, and Economic (Guptill and Wilkins, 2002.) The environmental movement encourages people to consider growing conditions and the geographic implications of where food comes from. The social movement to address food access and food security contributes to the push to provide safe and healthy food for all people, regardless of means. The economic movement has presented opposition to large corporations taking over the landscape, which has also contributed to the expansion of local food systems. People are withdrawing interest in mass-fast food production and are reverting to traditional ways of eating and growing, (Ilbery and Maye, 2005; Pirog, 2009). There is a newfound and genuine interest in the origin of one's food. Food production has become a means to connect urban space, and local farms are helping people reconnect with the Earth.

B. Motivation to "Go Local"

What motivates people to eat locally and engage in their local food system? Consumers consider a wide range of factors when choosing their diet, and increasing evidence shows people are making civic and society-minded decisions when purchasing food. In terms of personal benefits, people are curious about how their bodies react to food.

What goes into the human body is incredibly significant; therefore, it is worth the extra research to determine where food comes from, how it is raised, and how it is processed. People want to consume safe products and are attracted to the idea of nutritious food that is nontoxic and fresh (Cotler, 2009). Urban agriculture provides a medium to meet local farmers and personally know the growing conditions of the food that comprises their diets. Local food systems also have far-reaching impacts that benefit the Earth. They provide a way to reconnect with the land and they create a sense of belonging (Lyson, 2004). Cultivation helps the local soil, seeds, and nature through preservation and protection. (Hodgson, Campbell, Bailkey, 2011). Local growing also contributes to the assurance of food for future generations, inspiring justice and positive community ethic. While there is undoubtedly a complex array of buyer motivations, consumers are ultimately seeking direct assurances about the origin of their food.

II. Methodology

A. Relevant Literature

An understanding of local food systems and local food efforts was gained through the collection and analysis of journal articles, books, newspapers, web documents, field explorations of local farms, and interviews with local farmers. Existing studies and analyses were synthesized to evaluate the effects of local food on various components of community life. This review provides a history of the local food movement, case studies of local food strategies and initiatives in Watauga County, recognized social, environmental, and economic impacts that local food systems have on community life, and conclusions regarding the future of urban agriculture and local food systems.

B. Participants

The participants of this study consist of a convenience sample of four farming organizations in Watauga County: F.A.R.M. Café, Mary Boyer Community Garden, High Country CSA, Leola Street Community Garden. Each of the farms operates with a common vision to provide access to fresh and healthy produce for the local community. While the four farms share a general goal, they were ultimately chosen for their fundamental differences. The differences allow readers to better determine which types of organizations are most successful socially, environmentally, and economically when supplying the community with local food.

C. Interviews with Case Study Subjects

Personal interviews were held with the garden managers and café chefs during the High Country Farm Tour. The interview questions (see Appendix A) were chosen based on personal curiosity and relation to social, environmental, and economic impacts. The questions provided an outline for discussion during the interviews, and while not all were directly asked, the respective conversations provided answers.

D. Rubric

The grading rubric developed quantifies each farm using the Triple Bottom Line framework (see IV. Triple Bottom Line: Impact on People, Planet, and Profit). Table 1 displays the parameters of the rating scale relative to the framework. The social, economic, and environmental impacts each farm has on Watauga County were analyzed to identify the greater impact of local food on community life. This simplistic grading scale was used because it consistently and successfully quantifies four farms with very different natures.

Table 1: A Triple Bottom Line Assessment Grading Rubric

	1 Does Not Meet	3 Meets	5 Exceeds
Social	No community involvement or interaction	Some consumer/producer relations; Members can choose level of community interaction	High level of involvement and interaction with other farms, local businesses, youth, volunteers, etc.
Environmental	No environmental footprint mitigation	Aesthetically pleasing; Good use of land	Employs renewable energy initiatives; Maintains wildlife habitats; Very well-kept; Positive and successful use of land
Economic	No local monetary generation/circulation	Some donation of produce to the greater community; May or may not generate profit	Steady circulation of money within the local region; Incoming and outgoing donations

III. Urban Agriculture Efforts in Watauga County

The farms and programs discussed below have encouraged and inspired Watauga community members to make educated decisions regarding the production and consumption of their food.

A. F.A.R.M. Café

F.A.R.M. Cafe is a non-profit, community kitchen that feeds everyone, regardless of financial means. Its vision is to eliminate hunger in the High Country, and does so by creating healthy meals produced from many local sources. The restaurant uses a sliding scale

and is centered on the idea that customers 'pay-what-you-can' (there is a suggested a donation based on plate size). Any money above the suggested price then goes towards meals for those who are financially limited. The café is open for lunch five days a week and the menu changes daily and with the harvest season (F.A.R.M. Café, 2013).

Figure 1 F.A.R.M. Cafe Dining Area

The idea for the business began in 2009, however, the cafe did not open until 2013. The organizers did not want to open a soup kitchen, and instead were interested in opening a community style restaurant that would help eliminate food insecurity in the region (Boughman, 2015). One World Everybody Eats was the inspiration and guide used to start the organization. F.A.R.M. café relies heavily on volunteers. Community members can work an hour in exchange for a meal, be an intern and help with administrative/non-profit work, or pay-it-forward by providing meals and food. Volunteer tasks include greeting, serving, dishwashing, cooking, etc. (F.A.R.M. Café, 2013).

F.A.R.M. Cafe strives to use local products as often as possible and this unique connection between farm and restaurant allows fresh food to be picked and cooked the same day. Located on a ½ acre plot of land in Valle Crucis, The Garden Spot is an organic garden that produces fruits, vegetables, and herbs, providing the café with seasonal produce. The Blue Ridge Conservancy holds the conservation easement on the property, and the garden contributes to the local conservation effort as well as welcomes volunteers and students. The garden began in 2012 when Susan Owen (Garden Manager) and a group of Sustainable

Development students collaborated to help support the community. Owen has been farming for over thirty years and owns her own farm in addition to managing The Garden Spot. While the first two years were subject to unprecedented amounts of rainfall, this season has been incredibly productive (Owen, 2015). There are currently fifty-seven different fruits, vegetables, and herbs that are harvested. Volunteers tend to the garden and many of the seeds are donations. All of the products are cooked at F.A.R.M. Café (High Country Farm Tour, 2015).

Figure 2 Susan Owen at The Garden Spot

The palpable family atmosphere and community feel in the restaurant is infectious. A majority of the customers are regular diners and the staff and volunteers embody a genuine passion for the initiative. As I observed Renee Boughman, a valued chef, employee, and founder ring up customers, I was genuinely amazed at how selfless the Watauga County community is. Customers who were financially able to donate were paying between ten and thirty dollars for a small salad or soup.

Not only does the restaurant encourage and support the regional economy (through direct donations, fundraising, grants, etc.), but also it sets an example that shows how being reliant on local food can be a tasty, economic reality.

B. Mary Boyer Community Garden

Figure 3. View of St. Luke's Church and Mary's Garden

While faith is not directly related to local agriculture, it is a driving force behind community values and involvement. St. Luke's Episcopal Church in Boone has numerous volunteer opportunities available to its congregation, one in particular being the Mary Boyer Community Garden. This garden began five years ago, and annually provides fresh produce to the Watauga County community, as well as to F.A.R.M. Cafe, Hunger Coalition, Hospitality House, and other nonprofit organizations (Norris, 2014).

Church member Bill Marr found inspiration for the garden while attending a small group session at a convention. After having an unexpected heart attack and open-heart surgery, he was overwhelmed by the outpouring of love and support he received from his church. He wanted give back to the universe and community to say thank you for the second chance. At the convention, group members shared interesting undertakings their congregations were implementing. One lady spoke about her church's garden bringing the community together. Marr was drawn to the idea of a produce garden; however, St. Luke's did not have the land. The neighboring Crosse Point Community Church did, though, and after speaking with leaders of both churches, the idea became a reality (Marr, 2015).

The original intention for the garden was to provide a "teaching and producing garden in an urban setting" (Marr, 2015). The garden was initially a 70 x 70 ft. lot, but it quickly expanded to almost 12,000 square feet. From the beginning, everything needed (seeds, labor, tractors, etc.) has been donated or bought with grant money. The first year, Marr planted a

wide variety of produce, however, he quickly realized not everything was productive and not every vegetable was well liked. Today, the garden grows approximately twenty-five different types of food, some of the most successful being beans, corns, squash, and potatoes. There is no allocation of the harvest, as Bill believes there is enough food for everyone who wants a bite. People are encouraged to bring a box and take what they want. He wants the garden to be a place where the harvest is shared and a sense of community is fostered (High Country Farm Tour, 2015).

Figure 4 Raised Produce Beds

Bill's vision has been a success, and in the past five years, the garden has become a place of solace for many people. He remembers pulling weeds one day, wondering what he was doing and whom he was helping. A woman walked by and commented that the garden reminded her of her father's. She asked if she could take something with her and Bill presented her with a giant bag of fresh produce. Her gracious response reminded him of why he began the garden. Similarly, while a member of the church was going through a divorce, she found peace working in the garden and sharing her story with Bill. Shortly after her divorce was finalized, her mother passed away. Again, she found healing power in the garden during a time of hardship. Correspondingly, Bill met an abuse victim sitting in the garden one morning. She explained it was the only place she could find solitude and feel safe. The woman began working in the garden daily to escape her negative home

environment. While these memories share tragic stories, Bill enjoys knowing the garden is so much more than a place to produce food; it is a haven (Marr, 2015).

The garden is named after the late Mary Boyer, a member of the church, an expert gardener, and a significant member of Blue Ridge Women in Agriculture. She was passionate about teaching English and gardening to Hispanic women. Today, the Mary Boyer Community Garden focuses on the spiritual ideals of helping one another, working cooperatively together, and feeding the hungry (High Country Farm Tour, 2015).

C. High Country Community Supported Agriculture

HCCSA is the region's multi-farm CSA. Maverick Farms, a non-profit educational center for food and farming, started the initiative in 2008, however, since 2014, it has run under the umbrella of WAMY. This network of organic producers provides the community with socially and environmentally sustainable food. Through HCCSA, farms and members work together to build an equitable food system (High Country Community Supported Agriculture, 2015).

From June to October (20-week season), shareholders can pick up local sustainable and organic produce from four different locations. Pickup times accommodate working people, providing even greater incentive to invest. Each box is filled with six to ten pounds of fresh produce from the High Country, typically harvested the same day of pickup. Share cost

Figure 5 HCCSA Shareholders Picking Up Weekly Boxes

varies according to the length of the growing season and the size of the share. At HCCSA, regular shares (family size) cost $500 and small shares (two-person household) cost $350. Additional items such as bread, eggs, and honey from non-participating local farms can be added for an extra fee. "According to an independent study, an average CSA share costs less than half of what you would pay for the same amount of organic produce in a supermarket" (Cotler, 2009). Since 2011, HCCSA runs a cost-share program that supported over thirty low-income families with fresh food. The cost-share families receive CSA shares at a reduced cost with the help of grant money and community donations (Regular shares= $300 and small shares= $150). Members also have the option to pay in installments or at a prorated price if they join midway through the season (High Country Community Supported Agriculture, 2015).

The original idea behind CSAs was that members share the good and bad years with the farmer- the risk of farming and what is produced. Crops may come in as expected, or harvest may be limited. Regardless, consumers take direct responsibility for supporting their local foodshed, pre-buying produce before the season begins. There are no refunds and members receive what is allocated to them. That being said, getting food directly from the source has many advantages. Members receive healthy, organic, and sustainably raised food. Vegetables become a part of daily diets and recipes are shared through the relationships created with the farmer and other farm-share members. Members support sustainable management of the land in their regions, as well as gain greater understanding of growing seasons (Cotler, 2009).

HCCSA hired Franya Hutchins to coordinate the CSA project. The coordinator position is funded with a grant from the N.C. Rural Center that Maverick Farms received to

fulfill its mission of "reconnecting local food networks and promoting family farms as a community resource" (WAMY, 2015). The HCCSA participating farms are a collaborative unit and agree on a production schedule. Farmers market their food early in the year, receiving payment up front. This not only helps the cash flow of the farms, but also provides an early source of income to help purchase supplies and finance farmer' costs. Farmers grow and fill weekly boxes for members, allowing consumers to eat locally produced and affordable food. They are committed to growing without the use of chemical pesticides or fertilizers, and if one farm experiences a challenge, they have a support network to lean on (High Country Community Supported Agriculture, 2015). CSAs encourage agricultural diversity and variety; farmers grow for people rather than the market. Joining a CSA allows consumers to know where their food comes from. Members can connect with environmentally responsible farms and farmers on a personal level.

D. Leola Street Community Garden

In 2005, Matt Cooper started this community garden in an attempt to provide a space for friendship, cooperation, and acceptance. During his time at Appalachian State University, Cooper had an interest in renewable energy and agro-ecology. Through experiential learning in New Zealand with World Wide Opportunities on Organic Farms, he found his passion for community agriculture. In an interview for the High Country Farm Tour Blog, Matt commented on his passion for healthy food stating, "It's what

Figure 6 Community Garden Tools

keeps us alive," he said. "Water, food, earth and sun. So let's keep all those things healthy, and everybody'll be just grand" (Johnson, 2015).

Located in the center of Boone between Wal-Mart and a mobile home park, everyone, regardless of financial status, race, religion, and ethnicity is encouraged to become involved (American Community Gardening Association, 2015). During the garden's first years, the Hunger Coalition sat on the adjacent property, which fostered a unique connection. The property has a total of thirty-five plots, with rental rates ranging from twenty to forty dollars. A nearby creek serves as a water supply. With a true focus on the community, workshops and workdays are held to teach plot owners about soil, plants, and produce. The garden tools are shared and members are expected to contribute to the community property by weeding and mowing the garden once per season (American Community Gardening Association, 2015).

Figure 7 Leola Street Community Garden

IV. Triple Bottom Line: Impact on People, Planet, and Profit

The methodology of the triple bottom line examines the social, environmental, and economic effects of an organization's policies and actions to determine its viability as a sustainable organization (Business Dictionary, 2015). This accounting framework was fully developed in the mid 1990s by John Elkington and is informed by the three pillars of sustainability. He coined the phrase "people, planet, and profit", which succinctly describes

the triple bottom lines. The framework seeks to evaluate business decisions and analyze the impact on each of the three pillars. It is easy for businesses to inadvertently cause negative impacts on people and the environment, and this can present severe threats to future life. Triple bottom line analysis aids in the achievement of a sustainable future. Triple bottom line investors recognize that some of the greatest returns are achieved when social, environmental, and economic interests are aligned and harmonious (Farmland LP, 2015). The three pillars are not mutually exclusive, but rather mutually reinforcing. In relation to urban agriculture, local food systems enhance social equity and democracy for all members of the community, use ecologically sound production and distribution practices, and aim to be economically viable for farmers and consumers (Link and Ling, 2007).

A. The Social Bottom Line

The social bottom line pertains to an organization's position in local society and the business practices related to labor and the community (ERA Environmental Management Solutions, 2015). Social variables refer to dimensions of community life including quality, well-being, education, etc., and measure how socially responsible an organization is during operation. Social responsibility ensures that the well being of the business, labor, and stakeholder interest are interdependent. This pillar can be viewed as a means to balance the needs of the individual with the needs of the group (Slaper & Hall, 2015).

1. Relation to Local Food: Social Benefits

Creates healthier communities. The overall health and well being of a community is directly linked to the availability of local food. Farming engages the mind and the body and eating locally makes people feel good. Local sourcing decreases the time from harvest to consumption, creating a pathway that allows

neighborhoods to eat fresher, riper, and more wholesome food, with less transportation. Urban agriculture tends to increase fruit and vegetable consumption, as participating in the growing process influences people to eat less processed food and more freshly picked produce (Robin, Lappé, and Lappé, 2014). Many gardeners also found that the presence of plants helped reduce stress and improved overall wellbeing (Armstrong, 2000; Patel, 1991; Teig et al., 2009). Urban agriculture engages the community through the recreational and social component that supermarkets lack. Most families send one member to the supermarket for a weekly shopping trip, while groups of people typically show up to volunteer on farms or shop at farmers' markets.

Community development and aesthetics. Urban streetscape design promotes walkability and bikeability, and encourages connectivity and active living. Food environments provide safe places that improve the physical space of neighborhoods (Hodgson, Campbell, and Bailkey, 2011). Community gardens surrounding these streetscapes contribute to the aesthetics, as well as draw people out of their homes, initiating conversations with neighbors. These gardens and small farms beautify the area, giving residents reason to have local pride and invest in the community. This leads to a decrease in crime (Bradley & Galt, 2013; Ober Allen et al., 2008; Teig et al., 2009).

Child development. Local food systems provide a medium for educational programs and developmental opportunities. Every person has a chance for success on a farm. Growing produce allows people to gain a sense of accomplishment. Farm work teaches tangible lessons and provides opportunities to establish a connection

with the earth, which is both educational and enriching. Community gardening can also be a pathway to help younger generations understand that food does not originate in the grocery store (Cotler, 2009).

2. Relation to Local Food: Social Challenges

Maintaining community support. Community members are typically very supportive of the local food system when they see tangible results, however, maintaining their support can be difficult. People are initially attracted to the idea of urban farms because of the many benefits listed above, however, as challenges present themselves, people tend to lose interest.

Social equity. Socially, local food systems have the potential to reinforce social inequalities. Urban agriculture often targets low-income community members with little food security, however, the culture of local food and the programs and initiatives surrounding the movement often revolve around those with higher education and incomes. (Bradley & Galt, 2013; McClintock, 2013)

B. The Environmental Bottom Line

The environmental bottom line is a measure of environmental responsibility and acknowledges that the less impact a business has on the environment, the more successful it will be. Environmental variables represent natural resources and incorporate air, water, energy consumption, waste, land use, etc. (Slaper & Hall, 2015). Businesses reduce their ecological footprint by carefully managing these factors. Committing to sustainable environmental practices contributes to the enhancement of a healthy environment (University of Wisconsin, 2015). The "planet" pillar of the Triple Bottom Line seeks to benefit the natural order. This is achieved through an understanding of environmental issues and

improved capacity to manage natural resources. Natural resources are often taken for granted and people forget they are not unlimited. Environmental sustainability occurs when organizations apply the "reduce, reuse, recycle" approach to products and operations.

1. Relation to Local Food: Benefits

Revitalization of unused land. Industrialization altered the ways in which communities obtained their food. Land that was once preserved for farming was bought and sold for commercial activity. The movement to eat more locally has the potential to reverse this. Urban farms are often built on abandoned land, and this revitalization strengthens community value by geographically putting consumers back in touch with local producers (University of California, Division of Agriculture and Natural Resources, 2015).

Environmental impact. Farms and gardens provide living environments for many species of wildlife. Buying locally is a proactive way to help sustain and preserve the agricultural landscape that holds our future. Eating locally produced foods aids in neutralizing problems caused by industrial food systems and promotes an ecological ethic. By appropriately substituting local food for imported food, communities can enjoy a rich and varied diet. Local food also promotes food distribution practices that alleviate climate change (Pirog, 2009).

2. Relation to Local Food: Challenges

Land regulation. Zoning regulations play a key role in land acquisition and finding growing space can be challenging in highly developed areas. Agricultural products involve public sale and donation, and therefore, small farms may require specific agricultural permits. Ordinances also exist prohibiting livestock, composting,

and other agricultural activities (Golden, 2013).

Negative environmental impact. If cultivation is practiced improperly, urban agriculture can cause pollution and contamination. It is important to test the soil for contamination, given that highly industrialized areas are abundant with heavy metals. Agriculture in cities can also have a negative impact on green space and biodiversity if it replaces urban forests, wetlands, or other biologically rich natural environments.

C. The Economic Bottom Line

The economic bottom line deals with the flow of money and measures profit and loss. This could include income, taxes, employment, etc. Making money is essential to having a successful business and a business that strengthens the economy it is part of is one that will succeed in the future (ERA Environmental Management Solutions, 2015). Within a sustainability framework, the profit is the economic benefit enjoyed by society and the impact on the local economy. A sustainable economic model equally and efficiently allocates resources.

1. Relation to Local Food: Benefits

Enhance local economies. Local and direct farm sales affect economic activity within a community. Paying extra for organic and local varieties of produce allows money to circulate in the local economy. Local farms provide jobs, and given that smaller farms rely more on human labor as they are not conducive to big equipment, they employ more people per acre than larger farms. Similarly, local food production and distribution play a role in the entrepreneurship of a community. Locally sourced food also ensures that public institutions and businesses have healthy options.

2. Relation to Local Food: Challenges

Limited financial support. Urban agriculture operations often have limited financial resources, as many are non-profit, family owned, or volunteer based. Poor financial state can hinder the ability to grow a variety of food and employ full-time help (Hendrickson, 2012). While urban agriculture has many proponents and volunteers, gardens require labor and daily cultivation. Time is money, and it can be challenging for small farms to afford the labor necessary to run a successful operation. There can be insufficient and irregular income generation due to seasonality.

V. Triple Bottom Line: Watauga County

Table 2 displays an assessment of the examples discussed above using the Triple Bottom Line grading rubric for local food efforts in Watauga. It is important to note that the organizations are graded individually and not comparatively. Neighborhood gardens, CSAs, community kitchens, etc. are unique to their kind, therefore, the chart simply helps to better identify the social, environmental, and economic impacts each organization has on community life in the High Country.

Table 2: A Triple Bottom Line Assessment for Watauga County

	F.A.R.M. Café	Mary Boyer Community Garden	HCCSA	Leola Street Community Garden
Social	5	5	3	3
Environmental	5	5	3	5
Economic	5	3	5	3

Scale: 1-5; 1= Does Not Meet, 3= Meets, 5= Exceeds

A. F.A.R.M. Café

F.A.R.M. Café has a strong social impact on the community. The vision of the café is to feed everyone, regardless of means, and this goal makes a positive contribution to various dimensions of community life. The volunteer-based nature of the organization provides opportunities for community involvement, education, and connection to the local food system. Location wise, F.A.R.M. Café and The Garden Spot's proximity to the urban environment is excellent. The restaurant is centrally located in downtown Boone and The Garden Spot is located in Valle Crucis behind the Old Mast General Store. Both of these locations easily attract locals and visitors. The cafe is a unique place people can meet for lunch and the garden is a serene place to actively volunteer in the community. Even better, both are places people can walk and bike to. Once a year the café hosts a group of special needs students which teaches children the importance of community kitchens and giving back to the community. Both the garden and cafe also enhance social equity because they provide a medium for low-income individuals to work and eat.

The environmental impact F.A.R.M. Café and The Garden Spot have on Watauga County is wholesome. The garden in Valle Crusis adds a special element to an already quaint and charming town. The garden backs up to an expansive field and aesthetically enhances the parking lot that belongs to the Old Mast General Store. This makes positive use of otherwise unused land, without creating an eye sore. Additionally, because the garden is in such close proximity to the café, transportation contamination and pollution is very limited.

F.A.R.M. Café and The Garden Spot have made an excellent contribution to the local economy. The garden directly sources the restaurant, and this cuts down transportation costs

for the organization. Additionally, the direct sales circulate through the local economy. Customers pay what they can, and if they pay it forward, they are helping to keep low-income community members from starving. While financial support can be a potential challenge for local food organizations, F.A.R.M. Café has an overwhelmingly large support system. The café operations are funded through direct donations of dining customers, as well as annual fundraising projects, outside contributions, and grants. These local funding opportunities provide additionally opportunities for community members to get involved in the community and help enhance the local economy.

B. Mary Boyer Community Garden

The Mary Boyer Community Garden has an excellent social bottom line. The garden was created to give back to the Earth and it does just that. The produce is donated to the Hospitality House, Homeless Shelter, F.A.R.M Café etc., as well as given to anyone who wants fresh food. The garden provides safe haven for community members facing difficulties and challenges, enhancing the psychological well being of community members. The Mary Boyer Community Garden also reaches out to local youth. Children have the opportunity to paint beds and pots, plant seeds, and learn about sustainable farming practices. Since the beginning, the garden has been a pathway for younger generations to reconnect with the Earth. The Mary Boyer Community Garden is located behind Earth Fare at the edge of downtown Boone. The garden is relatively hidden, but still within walking distance of residential neighborhoods, Appalachian State University, and shopping and dining.

In terms of the environment, the garden efficiently uses the sloped and small area on which it sits. The garden was built on an unused plot of land owned by a neighboring church. Interestingly enough, the church that owns that land has never shown interest in the

garden and its community minded efforts. The positive use of the abandoned space has created a beautiful entrance to St. Luke's. The area is undoubtedly a home for many species of wildlife.

Monetarily, the garden operates on volunteer work, donations and grants. Manager Bill Marr never wanted the garden to create an economic mess, so the harvest is given away and there is no concrete allocation of produce. The food is never sold for a profit and people are welcome to take what they want before it is donated. The garden does ensure that public businesses and institutions have healthy food options, though, which enhances the local business economies. Ultimately, the garden is there for community enjoyment and enrichment, not profit.

C. High Country Community Supported Agriculture

HCCSA is a collaborative, multi-farm CSA. Shareholders can choose how invested they want to be in the social aspects of the program. Many CSA's require one work day a month where members contribute time and labor to weeding, harvesting, washing, picking, etc. HCCSA also has a newsletter for members with weekly information and recipes. CSAs provide a quick and easy option for busy individuals to obtain local food. Some of the participating farms may have more productive weeks than others, and because the farms work together as a collective unit, weekly boxes are always filled and shareholders receive generous amounts of produce. Local businesses offer pickup locations, including F.A.R.M. Café and Bare Essentials Natural Market, and this contributes to community involvement and the fostering of relationships.

While the individual farms supporting HCCSA operate sustainably, the CSA has a minimal direct impact the environment. CSA farmers typically encourage land stewardship and enjoy sharing their sustainability efforts with the public. In the High Country, drop-off locations are small and purposeful, mitigating negative environmental effects.

The economic aspects of CSAs are very beneficial to local communities. CSAs keep money circulating in the local community. Local farmers connect directly with consumers, and this helps develop a regional food supply and strong local economy. CSAs also ensure farmers receive a fair share of the profit. Farmers market their food early in the year and receive payment up front, providing them an early source of income to help purchase supplies. HCCSA is unique in that it accepts food stamps as a form of payment. The cost share program also provides low-income families with discounted shares. These efforts exemplify the ultimate goal of providing communities with local food, not only monetary profit.

D. Leola Street Community Garden

The social impact the Leola Street Community Garden has on the community is unique. While the garden is based on the community values of friendship and cooperation, it is independently focused. Plots are individually operated and produce is typically not grown for the greater good or donated. Community interaction is fostered, though, because like-minded people share a common space to grow their food. If people don't have space in their own yards, community gardens provide the opportunity. The garden tools are communal and each plot owner is expected to mow the surrounding area once per season. Experienced farmers also host workshops and workdays to enhance plot owner education about sustainable farming. The location of the garden also plays a critical role in community

development, as it is nestled between Wal-Mart and a trailer park. Not only does the garden aesthetically enrich an unpleasing neighborhood, but it also puts the idea of local farming into the minds of people who are financially limited. Ultimately, plot owners only take away what they put in to their plots, and it is evident the owners of Leola Street plots are making the most of their local farming experience.

The garden revitalized unused land in an excellent fashion and this created a strong basis for a positive environmental impact. The location is prime and perfectly out of place. The small patch of green space in the urban neighborhood provides a beautiful view for neighbors and a crucial corridor for the remaining native wildlife. Unused lots are often magnets for litter and criminal activity, and this garden is clearly maintained by the dedicated plot owners, creating a clean and safe space to enjoy. Community gardens also help restore oxygen in the air, and this garden is located in a developed area prone to high levels of air pollution.

In terms of the economic impact, community gardens undoubtedly increase property value in the immediate vicinity where they are located. The green space directly beautifies the area and creates a more attractive environment for people to walk and enjoy the outdoors. Around Leola Street, it is not uncommon to see community members biking and walking. Community gardeners also save money, since the bountiful harvests almost always outweigh the original plot costs.

VI. Conclusions and Future Growth of Local Food Systems

The urban agriculture and local food movement is continuing to grow and gain momentum in communities across the United States. Despite the fact that very few cities

have incorporated local food systems into their comprehensive plans, there is an overwhelming feeling of community "readiness" for local food (Golden, 2013). Growing and consuming what we eat near where we live has great potential to increase the vitality of the planet. As global changes occur, communities are looking at how they can become more sustainable (Duram, 2010). Urban agriculture efforts have revitalized social, environmental, and economic elements of neighborhoods, consciously investing in the future of community life.

There are many influential drivers pushing the local food movement forward, including consumers, farmers, restaurants, chefs, non-governmental organizations, churches, schools, etc. Chefs are locally sourcing their restaurant menus and cookbooks. Consumers are expressing willingness to spend more money on fruits and vegetables that are grown close to home. Businesses are responding to the market demand for freshness and quality, contributing to an overall environmentally conscious corporate image (Golden, 2013).

Beyond these influential drivers, producers are enhancing the interconnectedness, growth, and development of local communities. In Watauga County alone, local growers have enthusiastically harnessed the power of the local food system. Farmers are successfully competing in the local market against the corporate food system, and they have created unique ways to provide sustainable alternatives to the goods produced, processed, and marketed by large agribusinesses. This has had a positive impact on community prosperity, and consumers now realize they have the ability to control where their food comes from and in what form.

The ability to feed future generations requires a slow and continuous shift to buy locally grown food (Cockrall-King, 2012). To successfully achieve future food security,

local food systems must introduce healthy foods in a way that is infeasible or impractical for non-local systems (Hendrickson, 2012). Therefore, urban agriculture environments should continue to be implemented in locations where existing producers have already proven the profitability of the farm to table lifestyle (Tracey, 2011). If farmers continue to think unconventionally and network with diverse community groups, advantageous connections will form.

The collaborative urban agriculture movement has and will continue to be a catalyst for impactful change, as local food systems continue to provide consumers with fresh food and contribute to the social, environmental, and economic health and development of communities. The movement is slowly, but strongly taking off, and for now, highlighting successful examples and recognizing the positive impacts on community life is enough to justify reasons to keep the movement progressing.

VII. References

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VIII. Appendix

A. Interview/Site Visit Questions of Consideration

1. What motivated you to get involved in local farming?
2. What is the history of this particular program?
3. What is grown? How many different varieties?
4. Who helps with the harvesting?
5. Who primarily eats the food (how many people do you reach with your food production?)
6. What has been your greatest success? What challenges and obstacles have you faced?
7. Are there strict regulations you are required to follow? Is your farm certified organic?
8. What is the purpose for growing? What is the contribution to the community?
9. What would you like the community to know about your operation?
10. What advice can you give to others wanting to get involved with local food production?