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The Evolution of Local Food System Policy

Kelsey Parkman

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What brought us to this dialogue about local food? Was it the fact that local food provides more sustainable sources of food? Creates jobs? Decreases added food costs? Before this recent push for supporting local agriculture, local food was the norm and the way of survival for much of the world. After World War II, however, The United States and Europe began to adopt adequate infrastructure, technology, and expanded trade shaping our food market and thus what we consume. The ease by which we are able to transport food creates disconnect among the consumers and their food, which has led to a different food consciousness among Americans. A food consciousness that is unaware of the origins of the food, the sustainability of this source, or who benefits from their purchases.

In the Knoxville area, our food, vegetables, fruits, grains, and meat were produced on small farms, and then delivered to Knoxville. After World War II, as previously mentioned, the invention of better transportation and connections to the rest of the world, and within the United States, created a network of food distribution and a more centralized agriculture system. This removed our local food distribution and consumption, and replaced it with food from across the globe and across the country. Recently the population has become concerned with the fate of local food and their community, sparking a movement to change this system. In the beginning there was a small startup of Farmers Markets, providing a path for small farms to sell their produce directly to the community. With the invention of the Farmers Markets, some restaurants became concerned with the quality of their food, and began purchasing more from local farms and vendors, thus creating awareness among the restaurant industry and their consumers. The rest of the world was challenged, however, to consider food sources, with the food price spikes of 2007. Food became insecure in areas of the United States that had never

been susceptible to the true volatility of food prices. In response to these food price spikes, an effort was made to increase the amount of community gardens in urban areas, Community Supported Agriculture became a solution, and other creative solutions, such as Local Food Hubs began to develop.

Problems with current food policy and access

Across the globe food price shocks, have played a major role in the sustainability of food access. In addition to fluctuating and uncertain food prices affecting household incomes, poor access to food also disrupts other capabilities as well. Of course nutrition and development are affected by the amount of quality and food, and because people are not able to reach a healthier and capable state, it in turn affects socio economic conditions (Anriquez 2012). This problem can be addressed in urban areas through hopeful initiatives in urban agriculture. More importantly increasing intake and circulation of local food, tends to lead to more jobs, boosts the economy, and could lead to a more sustainable food source if the correct policies are implemented.

Another problem that exists with volatile food prices is the fact that they are tied to the cost of fossil fuels. From transportation to processing, our current means of food production are heavily reliant on the cost of fossil fuels. Like the cost of food, oil prices are not a fixed commodity. In 2008, the oil price spike created a doubling in the price of food commodities (Heinberg and Bomford 2009), which serves to show the true volatility of the situation. This creates even more of an issue for those that already lack easy food access.

This chart from the Post Carbon Institute shows the coinciding oil and food prices, with the food price shock of 2007-2009 being a troubling and obvious rise in both.

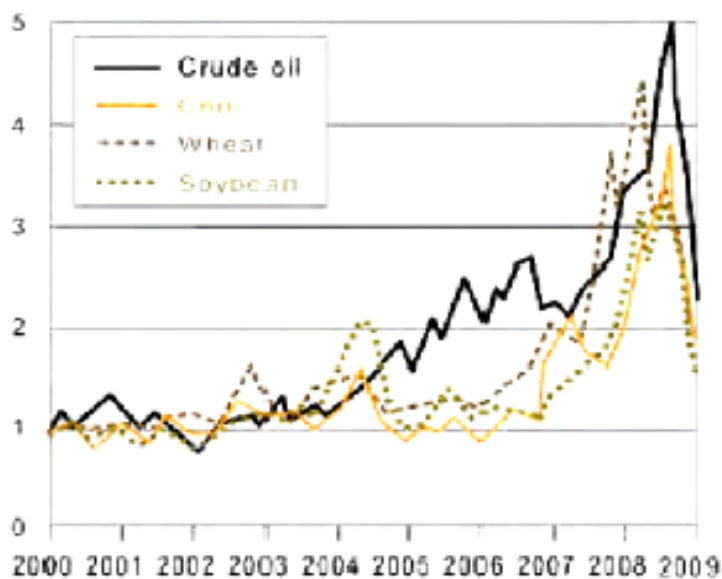


Figure 3. Relative price of crude oil, corn, wheat, and soybean on world markets, 2000-2008. (2000 price = 1).

Food Policies

The Potential Benefits of Local Food

If the standards of production are safe, however, local food emphasis can be a beneficial tool in improving the local economy, building trust amongst consumers, and decreasing the cost to consumers. According to the United States Department of Energy, a “resilient food system will require smaller and more widely distributed access points in the forms of small shops and garden or farm markets”. Government regulations and tax incentives can help accomplish this shift (USDE). These improvements are fairly similar to implementing a more efficient local food system. In addition to an improved food system, local food can benefit the farmers and people

in the region because they do not have to deal with trade barriers or as many added transportation costs. (Pretty 2005). Local food, as previously stated, has the potential to increase the trust of consumers and their predictability to buy food because of the face to face encounter (Meyer 2012). In addition to these benefits local food is friendlier for the environment and supports the small scale farms and livelihoods of rural populations and development (Labarthe and Laurent 2012). Local food, however, only explores the relationship of a domestic economy and food, and not the international economy, which does not support the trend of globalization and government support for open market policies and trade.

While local food may be a good development strategy that does not rely on globalization factors, another issue with food policy and the economy are food prices. The government has the ability to control food prices through trade policies that defend domestic markets and protects against price volatilities (Anriquez, Silvio, Erdgin 2012). These policies, however, have the potential to hinder global trade. Food prices affect food consumption depending on whether or not there is a change in real income, or even less likely change in household food production (2012). Change in real income, can be determined by either the government or employer, depending on the private or public sector in which the population is employed. The fact that income and food prices can depend on the level of privatization and the level of regulation, deepens the complexity of creating sustainable food access and effective food policy.

With the relationship of the consumers to food, household factors, and food price spikes taken into account, the evaluation of government food policy and sustainability support provides insight into the relation of politics and the economy for specific countries. Along with

the increase in supermarkets and globalization of food, developing countries have also had to keep up with the standards and policies of higher-income countries. In “Food security and public agricultural spending in Bolivia” by Cuesta, Edmeades, and Madrigal, the government has implemented several organizations meant to support their main tradable goods in agriculture. The formation of CRIHR supports the peasant family agriculture and their food production for the local market (Cuesta, Edmeades, and Madrigal 2013). The study also found that supporting local in this manner was a more effective use of government expenditures in promoting food policy. Part of this reasoning is due to the fact that it supports local incomes and not foreign incomes (Cuesta, Edmeades, and Madrigal 2013). The effectiveness of these government policies depends on the level of development and percentage of the budget spent on agriculture in each region.

The relationships between impoverished or developing countries have also been analyzed. In “Farm Costs and Food Miles” the study analyzes the consumption and cost of food in the United Kingdom, as well as avenues that could potentially reduce the cost of food. Within the United Kingdom, the consumption and cost of food varies on the region and preferences of the purchaser (Pretty 2005), as similarly found in cross-country comparisons. In the United Kingdom, the average capable spender for example spends 24.79 pounds per week on food while households in Scotland spent 4.4% less, and Wales spent 6.8% less. These results show similarity to other findings in that the higher income households spent a greater amount on food, but consumed less (Pretty 2005). By focusing on locally sourced foods and primarily transported through rail or cycling, which are lower transport costs, the study predicted that they could decrease the added cost to food by 10% (Pretty 2005). This has great potential for

policy makers to decrease the added costs of food and reduce the farm and food added miles as well.

Although this does provide a way to decrease the cost of food, there are several conclusions and issues with its implementation. First, the government must decide a way to shift consumer food choices and transportation preferences (Pretty 2005). Unless the government makes the local food more accessible and makes the effort to transport the food cheaply themselves, people will not be likely to do the same. Another implication with locally sourced food deals with globalization. The study cited that a long journey on water has a lower impact than a shorter road destination (Pretty 2005), another reason why globalization has made trade cheaper and easier. So despite, the decreased costs to increasing consumption and better transportation of local food, the increasing globalization of food sources are likely to continue because of the ease and network of relationships that the transportation and globalization of food has created.

In higher income countries, there has been increasing distrust amongst consumers and food, especially with the origination of food products. This, however, is the opposite with developing nations, which once again emphasizes the varying needs and food policies resulting from globalization. Due to worldwide distribution of food, food rarely comes from a local region and that an increasing amount is distributed from areas that we are not familiar with. On top of this, we do not know food policies in the areas in which food may be imported. The large scale economic growth of food production requires a focused knowledge of food policy economics (Meyer 2012), which is not easily consumed by the populace. To increase trust of transported goods and without having to educate the public, the trust factor between policy and food can

be increased through a heightened distribution and consumption of local food (Meyer 2012). While this study suggests that there is distrust with globally transported food, developing countries need the processed and safer foods. In fact, supermarkets have been important in creating food safety standards, and distributing better produce to the urban residents (Popkin 2006). For developed nations, local food will encourage customers to be more informed and place money into the hands of their community, instead of sending the money to somewhere in which they most likely will not benefit from the transaction. While in developing nations, the policies of foreign direct investment and supermarkets have led to increased consumer trust and safer food, which once again emphasizes country specific food policies, not a globalized standard.

Relating the Local Food Discussion to Knoxville

Understanding the benefits of local food and implementing said benefits relies on understanding the scope of the local food system. If Knoxville wanted to increase the amount of local food to 20% of consumption, then policies developed specifically for the region would have to be implemented. This cannot be done without understanding the amount of local food sold and produced in the region, or without knowing the location of production areas, such as farms and slaughterhouses. Knowing the layout of a food system is crucial to improving the sustainability of food and benefits of local food to the region. Where does the majority of produce come from? The next part of this paper will investigate the scope of the local food system in Knoxville, in order to investigate how to improve the local food system. My investigation was also part of a Regional Foodshed Assessment done by Dr. Chad Hellwinckel at the University of Tennessee's Agriculture Policy Analysis Center. My small contribution to this

project consisted of gathering the data for a map of the local foodshed, as well as interviews with the various distributors and producers in the region

Local Food Map

Methodology

Problem: The problem to address in Knoxville, and like many regions making transitions to increase their local food system, cannot be solved without first understanding the scope and density of the local food system. The dilemma with obtaining this information, however, is that it does not exist within our region, and the Census of Agriculture does not report on farmers producing in the local market.

Solution: In order to obtain this information, a census must be taken. The farmers and local food producers will be interviewed to understand and help the farms. This will also help to create a map of the local food region to understand the density of the different types of local food producers, which will in exchange, help to propose better tailored policy initiatives. This inventory of the local food system will include 11 counties surrounding Knoxville (Knox, Blount, Sevier, Jefferson, Grainger, Union, Campbell, Anderson, Morgan, Roane, and Loudon).

Methodology: There are two separate parts to making the map. The first existed of the quantitative data that was used to make the map by the faculty at the Agriculture Policy Analysis Center, and the other included the qualitative information from the farmers and local food producers. I investigated the following: Who are the farmers? What do they produce?

What is the destination of their products? What is their location? What are their certifications and practices? In order to gather this data, I contacted the farmers, producers, farmers markets, grocery stores, and restaurants in the region because it was not readily available. The data was collected either in person, over the phone, or through email. It took six months to obtain the information I needed to create the map. Because I had to wait until the opening of farmers markets to obtain a good portion of the information, gathering certain data relied on this time period. It was important to wait for the farmers markets because they have many farms that cannot be found through internet inquiry, and they include new farms and producers in the local food system.

Initially the CSAs, farms, grocery stores, and producers, I investigated via the internet to obtain contact information. From this point I moved onto Three Rivers Market, a local food co-op in Knoxville, to begin the interview process. Although I collected information on the location, types of produce, and their farming practices, I also asked the farmers and producers about the barriers to increasing their distribution or production of their produce. This proved to be rather helpful in understanding the effects of policy, as well as increasing my own understanding about how regulations and policies affect the farmers and producers, not only how they interact with the scope of the local food system.

The producers of local food shared some insight during these interviews that I couldn't find in journals or articles about local food and food systems. Some of the topics they brought up in these interviews can also be useful in assessing the effectiveness of farming and food policies in Knoxville.

Farming Practices

Dealing with produce today, there is a lot of concern about the quality of the product, is it organic or were pesticides used in the process? If so are only natural pesticides used? These are typically the topics the farmers and producers discussed in my interviews in regards to regulation practices and barriers. It is also essential to note that it is important for the producers to have some form of natural production even if they did use pesticides. Almost all of them made it a point to discuss the safety of the pesticides or practices they were using, even if they did not have Organic certification. What is unknown by the general population, however, is the cost and time-consuming regulations that Organic USDA certification requires. For most of the producers, organic and natural practices were the norm, very few actually had been USDA Organic certified. The small farms in the Knoxville food shed cannot afford the time or the money that a larger farm can afford, and so they choose to adopt natural and organic practices without the money needed to be regularly inspected and up to regulation standards.

The Scope of the Local Food System

After investigating the amount of local food available at grocery stores in Knoxville and the surrounding area, it was apparent that they sold relatively little local food, and even less local produce in respect to the rest of their products. Instead I found that those that buy locally typically make the effort to go to the Farmers Markets, or from CSAs. One issue with this however, is that most Farmers Markets are seasonal, and very few people actually take advantage of CSAs, or even know the benefits of Community Supported Agriculture. Besides the CSAs or Farmers' Markets, there are few eateries, and grocery stores that sell local, however, the largest and most popular stores that sell to the most consumers typically carry small

amounts of local food. In addition, several stores that carry or use a variety of local products also sell a wide variety of foods that aren't local. Their reasoning being that it is not viable for the business to run 100% on local products.

A Farmer's Perspective on Increasing the Capacity of the Local Food Shed

During this survey the local food producers offered several helpful suggestions and insights to improving the local food system. For the most part, these were the more prominent small farms in the area because they had had previous experience with the media, and the local population as well. One aspect I was particularly interested at the time was awareness of local food, not just its existence, but its potential benefits. In addition, I was also interested in what they thought would make their business more efficient. Although I asked different farms different questions, these were the questions that received the most helpful feedback.

Question: What is the best way to increase awareness of local food and its benefits in Knoxville?

Summary of Answers:

- Media attention normally increases the consumer threshold
- In regards to educating the public: Education is essential to increase awareness. Educating children would also increase demand for local food. It is also important to consider those that have been misinformed about terms and policies regarding local food. Spreading factual information and educating the population about the truths of the local food system is also essential. For example, I was informed that "free range" can mean that they have access to a field, but can be kept in cages according to USDA standards (although this is

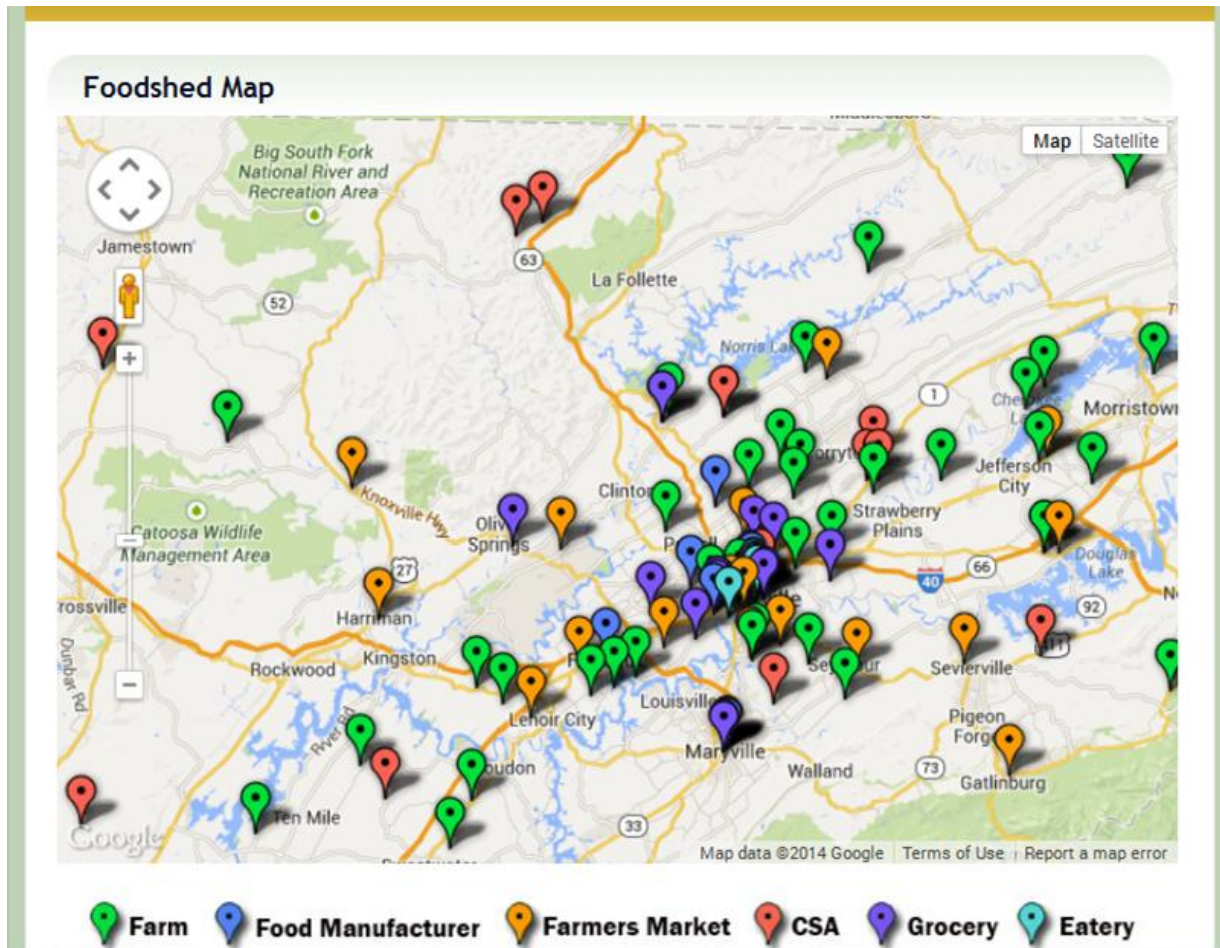
supposedly being altered). It is also important to educate the public about the local food that is available in the region. Education creates appreciation, which is an all-around positive for the community.

- In regards to local vendors and restaurants that buy and sell local products: Because of the large amount of local vendors that Just Ripe supports, they individually contact each farm. It is extremely time consuming and difficult to arrange and placate all of these farmers. For this reason, it would be helpful to have someone that acts as a local food distributor intermediary between restaurants and farms.
- Not all farmers markets have the same rules and regulations, and may hinder some farms from participating, which in turn may limit the scope of the farmers market. For example, those that sold at others farmers markets praised the Market Square Farmers Market for having welcoming regulations and atmosphere compared to others.
- There are also farmers who felt pushed out by the preferences that food regulation and food policy have for larger farms. They see the system as broken and they feel neglected and shut out by the government, who they see as supporting large farms over small farms.

The main portion of this local food project was to create a map of the local food system to help policy makers understand the scope of the local food system, and which policies may be helpful to the Knoxville region. This map will also help locate the density of farms in the food shed,

which can help create efficient food hubs, and understand the areas of density that would help bring food to the local food market.

The Map



What the local food map reveals:

1. The general view of the geography reveals the location of the farmers, who seem to be defined by the markets.
2. Because the Knoxville local food system is spread out, or evenly distributed, it would be difficult to implement food hubs, or other third party distributors. While this has been

helpful in areas such as Charlottesville, it may not as easy to improve distribution to local food in our region in this manner, despite a need for an aggregator.

3. Since we have a density problem, it may be beneficial to create a policy that requires a higher density of small farms, which would then allow for an efficient food hub.
4. There is an obvious lack of distribution in urban areas.

Future Directions:

A lot of cities are making the move to support local and increase access to food. While Knoxville may not have implemented as many initiatives as these areas, their progress is indicative of the potential positive effects of a more sustainable food system.

Urban Farms and Food Corridors

Although Knoxville has seen an increase in urban farming, a lot of these farms do not produce a high amount of local food. Increasing their local food threshold and production, would also provide these undernourished areas with fresh produce.

Urban Farms and community gardens are a few initiatives that many cities have undertaken in order to solve the lack of fresh, local food in urban areas. In fact, studies have shown that community gardens in New York, NY increased property values up to 9.5% in five years in low-income neighborhoods. A similar study in Philadelphia, PA showed that transforming and improving vacant lots for urban farming increased the residential property value of the neighborhood by 30% (EPA Urban Agriculture).

In addition to urban farms are urban food corridors. They can increase access to affordable healthy food, and support economic opportunities, but usually involve larger plots of land and versatility. For example Cleveland, Ohio has created an Agricultural Innovation Zone that has

set aside plots of land for twelve market gardeners, and created a six-acre urban farming incubator. These gardeners will then sell to farmers markets, restaurants, etc (CCC Food Policy 2010). Chicago has made plans for an urban farm district in partnership with the Department of Housing and Economic Development's Green Healthy Neighborhoods initiative. This program plans to transform development in 13 square miles of Chicago's South Side (Rotenberk 2012).

Abbey Fields

In the beginning of 2014, Knoxville joined the urban agriculture movement, with the addition of an urban farm project located on Washington Avenue. The urban farm project, Abbey Fields, is "dedicated to the rebuilding of living spaces and creation of local food systems" to which they focus on converting various lots with the "ecological capability of the land" in mind.

Food Hubs

Food hubs are defined as an "integrated food distribution systems that coordinate agricultural production and the aggregation, storage, processing, distribution, and marketing of locally or regionally-produced foods products (Regional Foodsystems 2012).

Charlottesville- One successful Regional Food Hub exists in Charlottesville. This Food Hub is unique in that it fosters the next generation of farmers by offering educational opportunities to support the sustainability of land. This Local Food Hub purchases local produce from 70 farms within 100 miles and distributes to over 150 locations (Harvard Policy Group 23).

Chicago: For this reason, Chicago came up with a creative way to spread produce through deserted regions throughout the city. The Food Desert Action program and Architecture for Humanity transformed a bus into movable produce store known as "Fresh Moves". In Chicago, it is difficult to guarantee large plots of urban land, and for independent grocery stores to

decide on untested areas for potential locations. Fortunately, this program has been rather successful and is expanding to other urban areas (Guzzardi 2011).

Larger Policy Discussion:

It is also important to take into account the policies and issue that affect the food system and hinder or help increase the local food system through creating urban farms and food hubs. A few of these include food access in low-income areas, zoning policies, and the development of the food policy council.

Food access in poor areas

Access to food, or rather healthy food, has become important in creating policy to rectify this issue. Internationally, volatile food prices and food price spikes have generated research and analysis on how best to approach the problem. One food policy researcher, Gustavo Anriquez, and his team, discuss the effects of a food price shock on various countries and their consumers and producers. The more diversified the diet the lesser effect the food price spike will have. Also, access to land, including urban areas, can help achieve better nutrition. The study calculates the affects of rising food prices by using surveys from 8 countries. These surveys are based upon food acquired and not necessarily all of the food that is consumer because of the time lapse between the two. The country-specific socio-economic, geographic, and institutional factors have to be considered before drawing locally relevant policy conclusions (Anriquez 2012).

In the United States, however, researchers and policy makers have found a problem known as the “grocery gap” in low-income, rural, and colored communities. These communities have access to half as many grocery stores, with 25 million Americans lacking access, within 10

miles, to healthy food (PolicyLink 2013). In New York City and Harlem, for example, this problem is made evident. Compared to other neighboring areas of New York City, areas with bodegas instead of super markets, such as Harlem, have much higher rates of obesity and poor diet diseases (NYC Dept of Health and Mental Hygiene 2011). There is also evidence of poor food access affecting rural areas as well. In Rural Mississippi, people are 23% less likely to meet guidelines for daily fruit and vegetable consumption compared to those that have access to supermarkets (PolicyLink 2013).

Food access is also linked to food security, as previously mentioned. In relation to local food, food security generally entails that people have access to “enough food for an active and healthy life” (Nord et al., 2009). In 2008, in the middle of the most recent food price spike affecting Americans, more than 6.7 million households in the United States had very low food security (Nord et al., 2009). In both rural and urban areas farmers markets have become a minor way to increase access to local food, including those in low-income or rural areas. Farmers markets have become linked to food security and food access programs because they have become they readily accept benefits from Federal and State food and a nutrition programs (Thilmany and Watson 2004).

A look at farmers markets

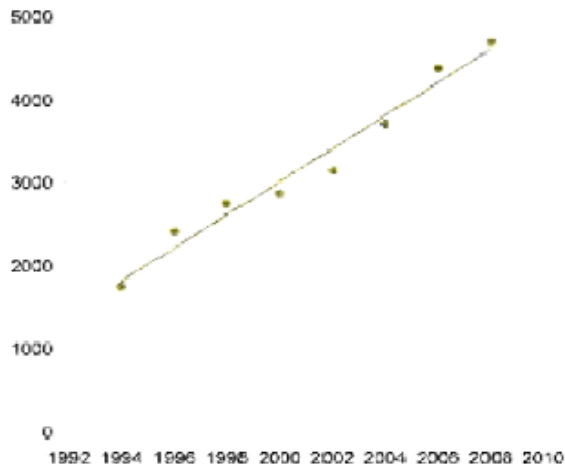


Figure 11. Farmers markets operating in the USA, 1994-2008. Approximately 200 new farmers markets have started each year for the past 14 years, more than doubling the number in operation nationwide.³

This figure illustrates the dramatic increase in farmers markets over the past 20 years or so, with 200 new farmers markets within the last 11 years.

More importantly, while there is evidence that access to healthy food, mainly fresh produce, is there a link to local food improving the health and nutrition of the community? There are few studies on this, considering the relative newness of the local food movement and healthy food policy. Studies that have been done indicate the potential to improve the local economy and improve food costs, but the USDA states that it does not guarantee an improvement in the quality of diet or even food security (USDA 2010). So while access to food may improve, the health and sustainability of the local food movement has yet to prove its benefits.

Zoning policy

Another policy that directly affects local food is zoning policy. This basically entails that the city is broken up into zones and the city can only use land for gardening and farming in certain

zones. Currently in Knoxville, legislators are trying to pass regulation that would allow for food to be grown anywhere in an urban area, but at the moment they are resigned to designated areas, which remain few and far between.

In general, however, zoning policy is tricky to navigate depending on the city or state. Local government regulates land use only through the power and legislation of the state government (Harvard Food Policy Group 2012). They may be given more power to dictate what their area needs, or the state government may dictate general rules, making it rather difficult to solve issues particular to local communities. This flaw in the zoning policy system, further demonstrates the need for food policy councils to work together with law makers to expand the effectiveness of the local food system. Some cities have made progress in rectifying the zoning policy issue. For example, the Cleveland city government changed zoning to allow for urban farming and selling of produce from lots, as well as created 20+ acres of vacant land available to urban farmers (Hellwinckel et al., 2014)

The Food Policy Council

A food policy council strives to create a more sustainable local and regional food system through discussions and forums that encompass people involved in all aspects of the local food system and policies. It can be either public or non-profit, but is a more democratic way for the ideas of the community to come together, rather than delegation from the state or city that are unaware of these needs. For example, the Knoxville City Council created the first policy council in 1982 in order to respond to growing food insecurity for low- income residents. As of 2011, there were 150 Food Policy Councils that deal with problems from the rising obesity rate, food

access, and soil erosion. Now there are approximately 240 food policy councils in the United States, with 50% of those created in the last 5 years.

Conclusion

Because of my passion for helping people achieve their best through health and policy, the opportunity to essentially map the local food of Knoxville seemed like a fantastic idea. Before beginning this process I knew little about the benefits of local food. Investing in local food means knowing where produce originates, supporting the producers, investing in the local economy, decreasing added transport costs, incidentally fresher foods. The problem with supporting local food, however, is that policies have not promoted the small farmer, or this is at least what I thought before beginning this project. The truth is that the issue is much more complex. As I read countless journals and articles on food policies and spoke with farmers and businesses, I learned more about the barriers for farmers and the concerns of the consumers. My preconceived notions of “policy” and public opinion and its effect on the adoption of healthier and more sustainable food choices merged from a struggle to help people “see the light”, to an effort to increase my own knowledge on our current food system.

The majority of this paper may seem like a list of potential benefits or movements regarding local food, but the sustainability of local food and the results of increasing our local food intake are yet to be proven. There is research and data that simulates its benefits, such as decreasing added transport costs and increasing tax revenues and local jobs, but the movement is fresh and the time frame for increasing its circulation is just now taking shape. This paper is meant to outline the relevance of local food, and our transition to understand means that provide a more sustainable and effective food system. Research across the globe has found that

it can be effective at increasing access to food, consumer trust, and supporting the local economy. Movements such as food hubs and urban farms have increased access to local food and transformed otherwise vacant lots of urban communities. The scope of the local food system in comparison to the origins of the majority of our food system is rather small, and it is impossible to change this number without changes to policy and initiatives to ease access to local food.

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