

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search http://ageconsearch.umn.edu aesearch@umn.edu

Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C. NC STATE UNIVERSITY

The Evolution of Local Foods: A Retrospective and Prospective Consideration

Kathryn A. Boys

and

Steven Blank

North Carolina State University

Department of Agricultural and Resource Economics

Working Paper No. 18-00 April 2018

THE EVOLUTION OF LOCAL FOODS: A RETROSPECTIVE AND PROSPECTIVE CONSIDERATION

Kathryn A. Boys Assistant Professor Department of Agricultural & Resource Economics North Carolina State University Email: <u>kaboys@ncsu.edu</u>

Steven Blank Department Head and Professor Department of Agricultural & Applied Economics Virginia Polytechnic Institute and State University Email: <u>scblank@vt.edu</u>

This chapter provides an overview of the development of the market for local foods, with particular emphasis on the U.S. market. Roots of the current consumer interest in locally sourced and produced foods stem from several public policy, food production, and consumer trends. The origins of interest in producing and consuming products which would now be characterized as local foods are explored. Following this, the current state of the local foods market is examined. Government and non-government organization programs designed to foster local food marketing highlighted. Economic considerations which will constrain the wider adoption of local foods products, are presented. Finally, a (likely) future for the market of locally sourced and produced food products is presented.

Citation:

Boys, K. and S. Blank. (2016) "The Evolution of Local Foods: A Retrospective and Prospective Consideration," Chapter 2 in M. Lang and J. Stanton (eds.) *The Meaning of Local Foods: A Food Marketing Management Perspective,* The Institute of Food Product Marketing, Philadelphia, PA.

Origins of the Local Food Movement

While there is evidence of growing international interest in local foods, the source of increasing interest in producing and consuming foods varies considerably and is often linked to specific circumstances in local markets. Rationale as disparate as changes in agricultural export policy, concerns about food safety, concerns about food security, anti-globalization sentiment, a desire to connect with and/or economically support one's community, a "regional patriotism," desire to support alternative food networks, perceived environment and/or sustainability benefits of procurement through local food networks, and consumer preference for differentiated products are among the most commonly cited reasons for increased interest in local foods. Efforts to detail the history of foods movements have been undertaken for several countries including the US (Allen and Hinrichs (2007), Hinrichs and Allen (2008); UK (Tregear, 2003); and Australia (Gaynor, 2006).

It is important to distinguish, however, between those who are marketing and consuming local foods by choice, and those who are doing so out of necessity. In many locations, particularly in developing countries, consuming local foods is a necessity rooted in underdeveloped supply chain networks or limited availability of food, rather than actual consumer choice. Importantly, in many such settings, local food is not trusted and is seen as an inferior food source due to pollution of local soil and water (e.g. Kenya - Freidberg and Goldstein, 2010). Even in developing country settings, however, particularly in locales frequented by tourists, there is much interest in local foods as a basis of foodservice and food retailer marketing (e.g. Turkey – Okumus et al., 2007; Dominica - Boys et al., 2014)

While it is not possible herein to trace the origins of local foods movements in major markets internationally, key features of the United States are highlighted as a case example. The origin of the local food movement in the U.S. stems from a number of, sometimes overlapping, environmental and social justice movements. From the perspective of producers, research on characteristics of food production systems that consumers understand as having 'local' characteristics date back decades. Sustainable farming approaches in the form of biodynamic farming (Steiner, 2011) and the progressive conservation movement date back to at least the 1920s (Harwood, 1990). Formal federal government action to promote conservation and to protect agricultural resources were embedded in early agricultural legislation including the Soil Conservation and Domestic Allotment Act (1936), the Soil Bank Program (1956; Helms 1985), and the Food Security Act (1985; Dimitri et al., 2005).

From the consumer perspective, US local foods movement is thought to primarily derive from a long history of political (or ethical) consumerism though which people work to change the marketplace (Micheletti, 2003). In the US there is a long tradition of boycott and buycott campaigns which respectively seek to direct consumer purchasing power either away from, or intentionally toward, specific companies or products. Buy Local Food campaigns have their roots in the "Buy Union", "Buy Black" and, most directly, "Buy American" campaigns. (Allen and Hinrichs, 2007). Against this backdrop, the interests of those with globalization concerns and those who wished to support alternative food networks, intersected and forged support for local food systems (Allen and Hinrichs, 2007). By the 1990s interest in local food had gained notable market traction.

Current State Of Local Food Marketing

Small farms are defined as those with annual gross sales less than \$250,000 (Hoppe et al, 2007). These farms, which consumers generally perceive as being the source of products sold through "locally grown" markets (Adams and Salois, 2010), have numerous options of outlets through which they can sell their products. Direct-to-consumer channels such as sales through farmers' markets or roadside stands, direct-to-institution outlets in which farms directly supply schools, hospitals and other institutions, and intermediated outlets where farms supply restaurants, grocers, and regional distributors are primary sales channels for these farms. Direct-to-consumer outlets are highly preferred by small and many medium sized farms (Low and Vogel, 2011). Among other benefits these outlets offer farms flexibility to select the quality and quantity of products available for sale, freedom from contracts, and frequently higher per units sales prices than other marketing channels. For middlemen organizations (wholesalers, manufacturers, packers), Dimitri et al. (2008) report that younger firms, smaller firms, and those which carried a larger proportion of organic compared to conventionally produced products were more likely to market locally.

Total local food sales through direct-to-consumer and intermediated channels in the U.S. were estimated to be \$4.8 billion in 2008 (Low and Vogel, 2011). The 2012 Census of Agriculture reported that, nationally, direct-to-consumer farm sales totaled \$1.31 billion in 2011. This reflects a per-capita spending of \$4.17, and an average growth in sales of 1.63% per annum since 2007.

These national figures, however, mask important regional differences in local foods markets. Direct-to-consumer farm sales by state are presented in Figure 1. Consumers in the U.S. Northeast, particularly those in the states Maine, New Hampshire, and Vermont purchase notably more from farmers than do consumers elsewhere in the country. The U.S. Southeast lags particularly behind the national average direct purchase farm products.¹

[Figure 1 Here]

While these differences in consumer spending are partially due to variation agricultural production between regions, it also reflects the aggregate effect of differences in individual food choices. This issue has been examined intensively and has been found to depend on the interaction of many factors including: (1) life course events and experiences that establish a food choice trajectory through transitions, turning points, timing, and contexts; (2) influences on food choices that include cultural ideals, personal factors, resources, social factors, and present contexts; and (3) a personal system that develops food choice values, negotiates and balances values, classifies foods and situations, and forms/revises food choice strategies, scripts, and routines (Sobal and Bisogni, 2009).

Given the varied factors which influence food demand, it is not surprising that local foods consumers are quite heterogeneous. Traditional consumers of local food products receive the bulk of marketers' attention. While characteristics do vary by place, in general these consumers are aged 35 years and older, have household income of at least \$60,000, and have at least a college degree (Vaiknoras et al., 2013). Female consumers and households with children are frequently also reported to be more likely consumers of products from local food systems. For

¹ A few observations about this data are required. It is often claimed that direct-to-consumer sales are underreported in official surveys (Brown, 2002; Otto and Varner, 2008). Further, as these data reflect only consumer spending, local foods purchases from sources such as schools and restaurants is not reflected in these figures. As such, it is likely that these are conservative estimates of the size of even the raw local food market.

these buyers, it is worth noting as well that much consumer research has found complementarity between consumer preferences for local foods and other food attributes such as "natural", or "organic". Studies, however, have been largely consistent in finding that consumers have a stronger preference, as measured by a higher willingness-to-pay, for local than for other food attributes (Loureiro and Hine, 2002; Thilmany et al., 2008; Onken et al., 2011; Meas et al., 2013, among others.)

Under-examined however, are a second group of local foods consumers for whom we will introduce the term "non-traditional consumers of local foods products". A number of social service program are explicitly designed to incentivize consumption of local foods products among the economically disadvantaged. In the U.S. these programs include the federal government's Women Infants and Children Farmers Market Nutrition Program (WIC-FMNP), the Senior Farmers Markets Nutrition Program (SFMNP). Participants in these programs receive coupons which can be used to purchase raw produce, honey, and herbs at farmers' markets. While differently designed, state governments are also implementing incentive programs through their social services or NGOs. South Carolina is one of several states in which a portion of local foods purchases by participants in the needs-based Supplemental Nutrition Assistance Program (SNAP) are matched to allow additional food purchases (Draper and Jones, 2013). While information concerning participation and redemption rates in these programs is tracked, very little is known about consumer decision making and tradeoffs within subsidized and across subsidized local and non-local foods. Increasing sales of local foods are achieved not only through the marketing efforts of individual farms and firms, but also through an extensive array of programs and promotion efforts by non-government organizations (NGO), industry associations, and municipal, state, and federal governments. The extent of promotional support of local foods from sources beyond supplying firms and industry associations is unique.

A summary of the major types government and non-government organization programs to support the marketing of local foods are provided in Table 1. Some programs are focused on promoting specific products from a region, while others are focused on more generally on promoting a region's farm and processed products regardless of the type. The audiences for these campaigns also differ. While some have the goal to increase awareness of local products among consumers within that locality, others are directed to help increase demand among local foodservice operations, retailers, food processors, and manufacturers both in and beyond the home region. Insight into a few key examples of these marketing programs is offered below.

[Table 1 Here]

Example 1: State Promotion Programs

Among the most extensively used of these programs are state promotion campaigns. These programs were initially developed to promote the purchase of raw (unprocessed) farm products from one's home state. The first state to develop such a promotion program was New Jersey who initiated the "*Jersey Fresh*" in program 1983. The idea became widely adopted. By 1995, 23 states had farm product promotion programs (Patterson, 2006), and by 2010, all states had similar programs (Onken and Bernard, 2010). Promotion of a state's processed foods is commonly organized through separate but complementary programs designed specifically to

promote a state's value added food products (e.g. *Made in Oklahoma*), or as part of a broader initiative to promote all products from a state (e.g. *Wyoming First*).

Rules governing what qualifies as eligible to be marketed through these programs is at the discretion of the individual program administrators. In South Carolina, for example, to be included in the state's value added marketing program (*Certified SC Product*), a product needs to be manufactured or processed in the state; there are no requirements concerning ingredient sourcing. In addition, an exclusive product recipe may contract out-of-state businesses for the product manufacturing (again, with no stipulation or limitation on the source(s) of ingredients) and still advertise through this program. *Utah's Own* program follows similar rules but also allows firms headquartered out of state to participate if the company's products derive at least 75% their value from Utah products and services. Benefits to business participating in these programs vary but usually include inclusion in state-program promotional materials (e.g. websites, printed materials), access to funds for advertising, and at- or reduced-cost access to program promotional items. In some cases, participating businesses may also be eligible for grants and, for restaurants, some reimbursement of other state products advertised through the state program.

Funding dedicated these programs also varies considerably. Patterson (2006) reported that for states where values were known, budgets ranged from \$8,300 (Montana, 2003) to \$25,500,000 (California, 2003). While an updated accounting of these figures is not available, evidence suggests that investment in this programs has been increasing. As this funding is sourced through a mix of state appropriations and federal grants, however, it is subject to frequent change

which challenges planning and, arguably, the efficacy of these programs. These programs are often managed by State Departments of Agriculture, the state's land-grant university's extension service or, in the case of value added product promotion, Chambers of Commerce or other similar groups.

The marketing impacts of these programs has also been found to vary by location and across time. In examining the *Arizona Grown* program, Patterson et al. (1999) found no or limited impact on consumer preferences and aggregate product sales. Subsequent work by Nganje et al. (2011) found that the impact of the *Arizona Grown* program varied by product and was higher for products with a recent food safety scare. In contrast, assessments of the economic impacts of the *Jersey Fresh* program (Govindasamy et al.; 2004), and the *South Carolina Grown* program (Carpio and Isengildina-Massa, 2010) found significant and positive net impacts of these programs. Similarly positive results were found in assessments of industry specific regional marketing programs (i.e. Texas wine, Hanagriff et al. (2009); Colorado apples, Hu et al. (2011)). While it is not possible to directly compare the results of these studies due to differences in their scope and analytical approaches, findings do suggest a likely increasing return on state marketing program investment over time.

Example 2: Marketing Orders and Agreements

Other promotion programs are initiated to serve the interests of producers of a specific commodity or product from a specific geographic area. Marketing orders and agreements are initiated by an industry to help stabilize and develop markets for that industry's products. Marketing orders adopted through a vote among product handlers and are binding on all individuals and businesses in the geographic area covered by the order; marketing agreements

must be adhered to only by signatories to the agreement (USDA-AMS; 2014). Administration of these agreements is through a board which is usually composed of growers, processors, and members of the public. The structure and mechanism of appointment to this board varies by agreement.

Growers can opt to organize and use either federal or state versions of these marketing instruments. Federally, this are administered and enforced with collaboration from the USDA's Agricultural Marketing Service (USDA-AMS). The scope of orders and agreements is dependent on preferences of participants but, at minimum, usually specifies product standards, standardizes product packaging, regulates the flow of product to market, and supports production research, marketing research, and industry advertising. Expenses are funded by an assessment (tax) agreed to by the participating producers. In the case of sweet cherries from Washington State, an assessment of \$0.15 per ton was established (Marketing Order 923). Other examples of federal marketing orders include the California date order which covers specified date varieties produced or packed in Riverside County, California (Marketing Order 987), and an avocado agreement (Marketing Order 915) which regulates avocados grown in South Florida. As of May 2014 there are 29 fruit and vegetable marketing agreements, and 10 dairy agreements.

State marketing orders and agreements are utilized only in states whose statutes allow for their use and may be subject to state-specific provisions governing their operation and administration. The function of state orders and agreements are generally limited to providing commodity specific research and promotion activities, and do not include oversight of grading, standards, and other quantitative marketing components (Paggi and Nicholson, 2013). Products marketed through state marketing agreements include Georgia pecans and New York apples.

In cases where both state and federal programs are available, the decision as to which program to choose rests with participating growers and processors. Some commodities are covered by both federal and state marketing orders; Wisconsin cranberries, for example, are covered by a state marketing order and the federal Cranberry Marketing Order (Marketing Order 929), which includes cranberry production from Wisconsin and states in the region. Overall, however, use of this form of marketing agreement has been controversial and arguments have been presented for limiting or ending their use (e.g. Caswell, 1997; Crespi, 2003; Saitone and Sexton, 2011).

Example 3: Non-Government Local Foods Marketing and Promotion Programs

Complementing state and federal government marketing programs, there exists an array of programs sponsored by non-government organizations (NGOs). While all grounded in an intent to support development of local foods markets, these programs differ in their secondary objectives, approach, and scope of geographic focus. "Buy-local" campaigns, for example, focus on fostering consumer and local business purchases from a specific county (Buy Fresh Buy Local Loudon County (VA)), a collection of counties within a state (Buy Fresh Buy Local Central Oregon – 3 counties), or an area that spans state lines (Appalachian Sustainable Agriculture Project). Nationally there are more than 75 such programs, many of which operate as chapters within a national Food Routes Network (FoodRoutes, 2014). Program coordination is undertaken by a diverse array of organizations including sustainable agriculture groups, economic development councils, and university based cooperative-extension services. Not surprisingly then, while a review found that these campaigns were driven predominantly by

economic motivations, many also had environmental, community and health objectives (Allen and Hinrichs; 2007).

Marketmaker[™] offers another model for marketing local foods. Marketmaker[™] is an online platform through which farms, food processors, and other agribusinesses upload profiles of their firms and products, and which consumers and business buyers can search for particular products within specified geographic areas. This program is a partnership of land grant universities, and State Departments of Agriculture. At present, 19 states and the District of Columbia participate in this platform that includes profiles of 660,000 food related businesses and hosts an average of 1 million hits and over 85,000 users per month (Carpio et al., 2013a). The marketing benefits of this program thus far have been quite modest; farmers have credited participation in Marketmaker[™] with an increase in direct marketing sales to customers of 1.1%, wholesale buyer sales increase of 0.8%, and an average of 2.9 new marketing contracts. Participating farmers markets credited the platform with an average of 3.6% in additional sales (Zapata et al., 2011; Carpio et al., 2013b).

Constraints to the continued growth of the local foods movement

Given the perceived benefits to producers, consumers, and communities of the local food movement, and the considerable efforts made to market its products, why is it still such a small portion of food markets? The answer - economics. Critics have identified numerous economic shortcomings and constraints that limit the widespread production and consumption practices which characterize local food systems (e.g. Desrochers and Shimizu, 2012). What follows is a brief summary of just three of those shortcomings. *Constraint 1: Comparative Advantage.* The concept of comparative advantage says that all resources should be allocated to the use for which they are best suited. In food systems this means that crops should be grown where the microclimate, soil, and input availability combine to create the highest yields and the lowest per-unit costs. That approach to specialization in production leads to surpluses that are traded out of the area for commodities in which the local area does not have a comparative advantage. The gains from trade enable each location to have access to all desired products at the lowest possible prices to local consumers.

Contrary to a specialization-and-trade supply chain, a local food system requires each market area to produce every commodity wanted by consumers. In most regions, this is simply impossible. Tropical commodities like coffee, cocoa, and bananas do not grow in the microclimates of mainland America or Europe. Other products, like fruits and vegetables, can be grown in most places if costs are ignored. Greenhouses full of tomatoes are possible, even in Alaska, but the cost per unit would be several times that of tomatoes grown in more suitable places, like California, and shipped to Alaskan markets. The same problem would face consumers in most of the country: products that could be produced locally would cost much more than identical products shipped in from efficient production sources.

Another cost to local food systems is the potential for additional environmental damage. "Forsaking comparative advantage in agriculture by localizing means it will take more inputs to grow a given quantity of food" (Sexton, 2011). The additional inputs needed by a local system include more land, more fertilizer, and more chemicals – to produce the same total output as a modern system already produces in an efficient (i.e. lower input) process. Thus while it is often

perceived that small scale farmers are better stewards of their land and water, any such benefits are likely to be more than offset by additional inputs use. In other words, each acre of farmland producing food for local sale could be adding more harmful inputs than necessary into the local environment.

Constraint 2: Economies of Scale. One reason for the increased use of equipment, fuel, and farm labor per acre on a "local" farm, compared to a modern commercial operation, is that those inputs must be used to replace the yields lost when losing the benefits of economies of scale in commodity production. Most producers participating in local food supply chains are smaller-scale operations that cannot capture the cost-reducing benefits of the large-scale equipment used in modern farming operations (Ahearn and Sterns, 2013). This outcome also holds for food processing and manufacturing industries which are also characterized by economies of scale.

Constraint 3: Health Implications. In the long-run, one of the most costly shortcomings of local food systems is that they raise the cost of the wrong foods. It is now widely understood by nutritionists that the obesity epidemic is driven to a great extent by diet. As a result, advocates of healthier diets argue that we need to find ways to make a healthy diet more affordable. Unfortunately, as Sexton (2011) notes, "grains can be grown cheaply across much of the country, but the costs of growing produce outside specific, limited regions increase quickly. Thus, nutrient-dense calories like fruits and vegetables become more expensive, while high fructose corn syrup becomes relatively cheaper." It is one of the great ironies of local and organic food systems that the original motivation of many consumers in these markets – the

desire for healthier food – could lead to higher prices for the "healthier" commodities and, therefore, drive many other consumers away from those products, possibly leading to a lesshealthy average diet in the local market area.

Likely Future of the Local Food Movement

While economic constraints will limit the ability of the local food system to replace that of conventional agriculture, technology and policy advances are being made which will extend the current capacity and access to this system's products. This is particularly true in the case of local foods supply. Through advances in urban agriculture, increasingly it will be possible to colocate production closer to sites of demand. Zero-acreage farming (ZFarming) includes all types of agriculture characterized by non-use of farmland and open spaces (Specht et al., 2014); common approaches include rooftop gardens and greenhouses, indoor farms, and other buildingrelated farms. As these forms of agriculture are relatively technology intensive, they are more appropriate for use in producing high-value products such as tomatoes, and micro-greens and products which offer an opportunity to contribute to off-season supply (Ackerman, 2011). Skyfarming, in which buildings are specifically designed to optimize growing conditions for the a specific staple crop (ie. water, temperature, radiation, nutrients, etc.; Germer et al., 2011), and the potential for urban microfarms to incorporate hydroponic, semi-hydroponic or aquaponic systems (Wilson, 2002; Orsini et al., 2013), are particularly promising Zfarming formats. At present, North America has the largest number of ZFarms, followed by Europe, Asia and Australia (Thomaier et al., in press).

Important advances are being made in the area of local food marketing and retailing as well. Having already experienced a long period of retailer consolidation, food sectors in developed

countries are undergoing a relocalization of food retailing. Thomaier et al., (2014) suggest that products grown or produced through ZFarming can be marketed as a niche product within local foods – "fresh produce grown in extraordinary places". Food banks, food service operations, and food retailers are increasingly modifying their own land and building to grow produce for their own-use (Thomaier et al., in press). A unique version of this are the urban farm shops seen in Europe that produce much of the food used in their shop on-site and often purchase foods from nearby (often also urban) farmers (Halweil, 2002.). In the U.S. various models of, often mobile and off-grid, "local stores" are emerging which offer only local produce and, in some models, local packaged food items. In these ventures particular attention is often paid to supplying local foods to underserved areas; interesting examples includes the LocastoreTM in Sonoma County, California, and West Philadelphia's (Mobile) Fresh Food Hub.

Public policies and insurance products supportive of local food systems are also needed to support the growth of local foods markets. Constraints to agricultural supply are particularly prevalent in urban areas where clear and sensible policies governing where in residential, commercial and manufacturing zones farms can grow food; permissions for animal, poultry, and bee allowances; animal space and structure requirements; and policies governing where urban-farm products can be sold are frequently unclear and outdated. Tax policies promoting green roofs, and innovation credits for retrofitting existing building are among the policy approaches which are increasingly being adopted by municipalities. Policies fostering local food demand are much more prevalent. Federal farm-to-school programs, the aforementioned farmers' market programs offered as part of the social support programs, have received regular increases in appropriations and are expected to continue doing so. State-and municipal-level programs to

foster the consumption of local foods also continue to grow in popularity. Both buyers and producers of local foods, however, would benefit from expanded availability of insurance policies which fully reflect the production diversity and varied risks of urban agriculture (Wang and Nevius, 2013) and which appropriately cover the risk from foodborne illness events (Boys, 2013).

Finally, while the impact of ongoing efforts to liberalize international trade of food products runs counter local food movement, other international trends may increase the cost of food trade and thus consumption of home-produced foods. Of particular note are potential changes in the tax treatment of international shipments. At present, aviation and shipping industries benefit from paying no excise tax, no taxes on shipping tonnage (turnover), and no value-added taxes (VAT); in addition, the shipping industry enjoys extremely low corporate tax rates (Strand, 2013). To help finance global climate change action and to provide an incentive for reduced emissions by these industries, the World Bank, IMF, European Union and individual country governments have called for an end of this favorable treatment (e.g. Keen et al., 2012). Should this tax structure be altered, the relative prices of products from different locations will change, and sourcing from nearby locations would most certainly be favored.

But, Is buying local enough?

Many purchasers of locally sourced product believe they are buoying social justice by supporting what they perceive to be a disadvantaged group of small-scale farmers and independently owned businesses. Beyond this implicit distinction between small and local being "good" and large and corporate being "bad", local foods promotional efforts "offer no acknowledgement that existing patterns of local livelihood and exchange could be unequal or unfair and thus not deserving of

automatic or unqualified support" (p. 355, Hinrichs and Allen, 2008). Although they are certainly affected, rarely are the potential benefits or implications of local foods for other disadvantaged groups such as women, low-income, or oppressed people considered by buy local campaigns (Allen and Hinrichs, 2007). Moving forward, it can be envisioned that other, previously independent social justice movements such as "buy ethically" and "buy union", may intersect with "buy local" campaigns. The future market for local foods may thus become increasingly fragmented. In this future, there will be opportunity for additional, and more nuanced, labelling schemes and promotional efforts.

Conclusions

From an economic perspective, it is unlikely that local food will ever be more than the niche market that it is now. The costs to individual consumers, and society as a whole, are too great to be overcome by perceived quality and other differences between commodities produced in local versus specialization-and-trade systems. That being said however, several important observations suggest that local foods, as a unique market segment, will continue for some time.

When asked about current and future consumer interest in local foods, in a survey of specialty food industry stakeholders, 60% of foods manufactures, and 61% of retailers indicated that they believe local claims will drive consumer interest in the coming years (Tanner, 2013). Similar trends are being experienced in the foodservice industry. Locally sourced meat and seafood, and locally grown produce ranked as the top two menu trends for 2014. Further, more than 70% of family dining, casual dining restaurant operators, and 91% of fine dining restaurant operators, feel that their customers are more interested in locally sourced foods than they were two years ago (National Restaurant Association, 2014).

Secondly, businesses which are not part of the traditional local foods system are, themselves making substantial investments in local food markets. Numerous angel and other investment funds are emerging which are explicitly focused on local food businesses. Also, Walmart's commitment to increase its U.S. sales of locally sourced produce to 9% of category sales by 2015 (Walmart, 2014) suggests that those outside the sustainable agriculture community expect this trend to continue for some time.

Finally, interest in local foods is becoming increasingly engrained in lifestyle choices. By way of example, local food production and distribution initiatives are being integrated into housing developments. Cities are integrating community gardens into housing communities and farmers' markets are being intentionally established in urban food deserts. Given the particular potential for important food security, health, and social capital benefits, areas with low-income families and large elderly populations (i.e. retirement communities) are particularly focused upon. Many of these programs are supported through a recently established fund from the USDA to support Community Food Projects. The private sector is also seeing value in offering people the opportunity to connect with local food systems as part of their daily lives. Innovative builders are now incorporating everything from community gardens to whole working farms (livestock included) into subdivision development projects. In the U.S. it is estimated that there are already more than 200 housing developments with an agricultural component (Harvest Public Media, 2013).

Taken together, these factors, combined with continued innovation in production and marketing of local foods, and strengthening policy and regulatory support, bode well for the future of this sector.

References:

- Ackerman, K. 2012. *The Potential for Urban Agriculture in New York City: Growing Capacity, Food Security, & Green Infrastructure.* The Earth Institute, Columbia University: Urban Design Lab.
- Adams, D.C. and M.J. Salois. 2010. Local verses organic: A turn in consumer preferences and willingness-to-pay. *Renewable Agriculture and Food Systems*. 25(4): 331-341.
- Ahearn, M. and J. Sterns, "Direct-to-Consumer Sales of Farm Products: Producers and Supply Chains in the Southeast," *Journal of Agricultural and Applied Economics* 45, 3 (2013): 497-508
- Allen, P. and C. Hinrichs. 2007. Buying into 'Buying Local': Engagements of United States Local Food Initiatives. In: D. Maye, L. Holloway, and M. Kneafsey. *Alternative Food Geographies*. Bingley, UK: Emerald Group Publishing Limited. p. 255-272.
- Barham, E. and B. Sylvander (Eds.). 2011. *Labels of Origin for Food: Local Development, Global Recognition*. Oxforshire, UK: CAB International.
- Boys, K. 2013. Food Product Liability Insurance: Implications for the Marketing of Specialty Crops. *Choices*. 28(4): 1-5.
- Boys, K. and D. Hughes. 2013. A Regional Economics Based Research Agenda for Local Food Systems. *Journal of Agriculture, Food Systems, and Community Development*. 3(4):145-150.
- Boys, K. A., D.B. Willis, and C.E. Carpio. 2014. Consumer willingness to pay for organic and locally grown produce on Dominica: Insights into the potential for an "Organic Island". *Environment, Development, and Sustainability*. 16(3): 595-617.
- Brown, A. 2002. Farmers' market research 1940–2000: An inventory and review. *American Journal of Alternative Agriculture*, 17(4): 167–176.
- California Dairy Campaign. 2014. *Decline in Number of California Dairies Continued in 2013*. Accessed June 1, 2014. Available online at: <u>http://nebula.wsimg.com/b417c2c508379758babbde6183998ba9?AccessKeyId=EF63704</u> 3B65EBCDC33C0&disposition=0&alloworigin=1
- Carroll, K., J. Bernard, and J. Pesek Jr. 2013. Consumer Preferences for Tomatoes: The Influence of Local, Organic, and State Program Promotions By Purchasing Venue. *Journal of Agricultural and Resource Economics* 38(3): 379-396.
- Carpio, C.E., and O. Isengildina. 2010. To Fund or Not to Fund: Assessment of the Potential Impact of a Regional Promotion Campaign. *Journal of Agricultural and Resource Economics*, 35(2): 245-260.
- Carpio, C.E., O. Isengildina-Massa, R.D. Lamie, R.D., and S.D. Zapata. 2013a. Implementation of an evaluation framework for the MarketMaker national network. Final report to U.S. Department of Agriculture FSMIP program. Accessed June 10, 2014. Available online at:

http://www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELPRDC5104566&acct=gpf smip

- Caswell, J. 1997. Rethinking the role of government in agri-food markets. *American Journal of Agricultural Economics*. 79(2): 651-656.
- Crespi, J.M. 2003. The Generic Advertising Controversy; How did we get here and where are we going? *Review of Agricultural Economics*. 25(2): 294-315.
- Darby, K., M. Batte, S. Ernst, and B. Roe. 2008. Decomposing Local: A Conjoint Analysis of Locally Produced Foods. *American Journal of Agricultural Economics*. 90(2): 476-486.

- Desrochers, P. and H. Shimizu, *The Locavore's Dilemma: In Praise of the 10,000-mile Diet*, Public Affairs: New York, 2012.
- Dimitri, C., A. Effland, and N. Conklin. 2005. The 20th Century Transformation of U.S. Agriculture and Farm Policy. USDA Economic Information Bulletin, Number 3. Washington, DC: USDA.
- Dimitri, C., E.C. Jaenicke, and L. Oberholtzer. 2008. Local marketing of Organic Foods by Certified Organic Processors, Manufacturers, and Distributors. *Journal of Agribusiness*. 26(2): 157-174.
- Draper, C. and S. Jones. 2013. SNAP Double Bucks Programs: Increasing Access to Produce & Supporting Farmers & the Local Economy. University of South Carolina, Center for Research in Nutrition and Health Disparities, Brief September, 2013.
- Food Routes. 2014. Start a BFBL Chapter. Online at: <u>http://foodroutes.org/take-action/join/</u>
- Gaynor, A. 2006. Harvest of the Suburbs: An Environmental History of Growing Food in Australian Cities. University of Western Australia Press.
- Germer, J., J. Sauerborn, F. Asch, J. de Boer. J. Schreiber, G. Weber, and J. Müller. 2011. Skyfarming an econogial innovation to enhance global food security. *Journal für Verbraucherschutz und Lebensmittelsicherheit*. 6:237-251.
- Good Fruit Grower. 2006. State Marketing Order Approved. *Good Fruit Grower*. Issue August 2006. Accessed May 15, 2014. Available online at: http://www.goodfruit.com/state-marketing-order-approved/
- Govindasamy, R., B. Schilling, K. Sullivan, C. Turvey, L. Brown, and V. Puduri. 2004. Returns to the Jersey Fresh Promotional Program: The Impacts of Promotional Expenditures on Farm Cash Receipts in New Jersey. Food Policy Institute (Rutgers University), Publication Number: RR=0404-006.
- Halweil, B. 2002. *Home grown: The case for local food in a global market*. Worldwatch Paper 163. Danvers, MA USA: Worldwatch Institute.
- Hanagriff, R., J. Lau, and S. Rogers. 2009. State Funded Marketing and Promotional Activities to Support a State's Winery Business; Are There Economic Returns?: A Case study using Texas Senate Bill 1370's support of the Texas Wine Industry. Proceedings of the Southern Association of Agricultural Sciences Conference. (February 2009). Atlanta, GA
- Hardesty, S.D. 2008. The Growing Role of Local Food Markets. *American Journal of Agricultural Economics* 90(5): 1289-1295.
- Harvest Public Media. 2013. Forget the golf course, subdivisions built around farms. Available online at: <u>http://harvestpublicmedia.org/article/forget-golf-course-subdivisions-build-around-farms</u>
- Harwood, R.R. 1990. A History of Sustainable Agriculture. IN: C.A. Edwards, R. Lal, P. Madden, R.H. Miller, and G. House (Eds.) Sustainable Agricultural Systems. Ankeny, IA: Soil and Water Conservation Society.
- Helms, J.D. 1985. Brief History of the USDA Soil Bank Program. United States Department of Agriculture Natural Resources Conservation Service. *Historical Insights* Number 1. Accessed June 10, 2014. Available online at: http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1045666.pdf

http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1045666.pdf

- Hinrichs, C. C. and P. Allen. 2008. Selective patronage and social justice: local food consumer campaigns in historical context. *Journal of Agricultural and Environmental Ethics* 21(4): 329-352.
- Hodges, A., T. Stevens, and A. Wysocki. 2014. Local and Regional Food Systems in Florida:

Values and Economic Impacts. *Journal of Agricultural and Applied Economics*. 46(2): 285-298.

- Hu, W., Y. Onozaka, and D. Thilmany McFadden. 2011. Selected Paper prepared for presentation at the Agricultural & Applied Economics Association's 2011 AAEA & NAREA Joint Annual Meeting, Pittsburgh, Pennsylvania, July 24-26, 2011.
- Keen, M., I. Parry, and J. Strand. 2012. Market-based instruments for International Aviation and Shipping as a Source for Climate Finance. World Bank Policy Research Working Paper 5950. Accessed June 1, 2014. Available online at: <u>http://elibrary.worldbank.org/doi/pdf/10.1596/1813-9450-5950</u>
- Loureiro, M.L. and S. Hine. 2002. Discovering Niche Markets: A Comparison of Consumer Willingness to Pay for Local (Colorado Grown), Organic, and GMO-Free Products. *Journal of Agricultural and Applied Economics*. 34(3): 477-487.
- Low, S.A. and S. Vogel. 2011. Direct and Intermediated Marketing of Local Foods in the United States. USDA Economic Research Service: Economic Research Report Number 128.
- Meas, T., W. Hu., M.T. Batte, T. Woods, and S. Ernst. 2013. "Local is the new Organic": Do Consumers Agree? Selected paper prepared for presentation at the Agricultural and Applied Economics Association's 2013 AAEA & CAES Joint Annual Meeting, Washington, DC, August 4-5, 2013.
- Micheletti, M. 2003. *Political Virtue and Shopping: Individuals, Consumerism, and Collective Action.* New York: Palgrave Macmillan.
- National Restaurant Association. 2014. 2014 Restaurant Industry Forecast Executive Summary. Accessed June 12, 2014. Available online at: <u>https://www.restaurant.org/Downloads/PDFs/News-Research/research/2014Forecast-ExecSummary.pdf</u>
- Nganje, W.E., R.S. Hughner, and N.E. Lee. 2011. State-branded programs and consumer preference for locally grown produce. *Agricultural and Resource Economics Review* 40(1): 20-32.
- Okumus, B., F. Okumus, and B. McKercher. 2007. Incorporating local and international cuisines in the marketing of tourism destinations: The cases of Hong Kong and Turkey. *Tourism Management*. 28: 253-261.
- Onken, K.A., J.C. Bernard, and J.D. Pesek Jr. 2011. Comparing Willingness to Pay for Organic, Natural, Locally Grown and State Marketing Program Promoted Foods in the Mid-Atlantic Region. *Agricultural and Resource Economics Review*. 40(1):33-47.
- Orsini, F., R. Kahane, R. Nono-Womdim, G. Gianquinto. 2013. Urban agriculture in the developing world: A review. *Agronomy for Sustainable Development*. 33(4): 695-720.
- Paggi, M. and C.F. Nicholson. 2013. Federal and State Marketing Orders. IN: W.J. Armbruster and R.D. Knutson (Eds.), US Programs Affecting Food and Agricultural Marketing. New York, NY, Springer
- Patterson, P.M. 2006. State-Grown Promotion Programs: Fresher, Better? *Choices*. 21(1): 41-46.
- Patterson, P.M., H. Olofsson, T.J. Richards, and S. Sass. 1999. An Empirical Analysis of State Agricutlural Product Promotions: A case study on Arizona Grown. *Agribusiness*. 15(2): 179-196.

- Saitone, T.L. and R.J. Sexton. 2011. Producer-Controlled Marketing Organizations, Self-Regulation, and Economic Welfare: Minimum Quality Standards in Agricultural Markets. *Canadian Journal of Agricultural Economics*. 59(4): 435-455.
- Sexton, S. 2011. The Inefficiency of Local Food. Freakonomics.com, November 14, 2011.
- Sobal, J., C.A. Bisogni. 2009. Constructing Food Choice Decisions. *Annals of Behavioral Medicine*. 38(Suppl 1): S37-46.
- Specht, K., R. Siebert, I. Hartmann, U.B. Freisinger, M. Sawicka, A. Werner, S. Thomaier, D. Henckel, H. Walk, H. and A. Dierich. 2014. Urban agriculture of the future: An overview of sustainability aspects of food production in and on buildings. *Agriculture and Human Values*, 31(1): 33-51.
- Steiner, R. 2011. *Agriculture Couse: The Birth of the Biodynamic Method*. Translated by George Adams. Forest Row, UK: Rudolf Steiner Press.
- Strand, J. 2013. Fuel charges in international aviation and shipping; How high; how; and why? Let's Talk Development – a blog hosted by the World Bank's Chief Economist. Accessed June 10, 2014. Available online at: <u>http://blogs.worldbank.org/developmenttalk/fuel-charges-in-international-aviation-and-shipping-how-high-how-and-why</u>
- Tanner, R. 2013. The State of the Specialty Foods Industry 2013. Specialty Foods Association.
- Thilmany, D., C. Bond, J. Bond. 2008. Going Local: Exploring Consumer Behavior and Motivation for Direct Food Purchases. *American Journal of Agricultural Economics*. 90(5): 1303-1309.
- Thomaier, S., K. Specht, D. Henckel, A. Dierich, R. Siebert, U.B. Freisinger, and M. Sawicka. 2014. Farming in and on urban building: Present practice and specific novelties of Zero-Acreage Farming (ZFarming). Renewable Agriculture and Food Systems. In Press.
- Tregear, A. 2003. From Stilton to Vimto: Using Food History to Re-think Typical Products in Rural Development. Sociologia Ruralis. 43(2): 91-107.
- USDA-AMS. 2014. Marketing Orders and Agreements. Accessed June 10, 2014. Available Online at:

 $\label{eq:http://www.ams.usda.gov/AMSv1.0/ams.fetchTemplateData.do?template=TemplateA&leftNav=MarketingOrders&page=MarketingOrders$

- Vaiknoras, K., K.A. Boys, and P. Donovan. 2013. From Agriculture to Manufacturing and Back: Old Industrial Zones as Prospective Incubators for Local Food Systems. Poster presented at the Agricultural and Applied Economics Association (AAEA) 2013 Annual Meeting, August 4-6, 2013 in Washington, DC.
- Varner, T. and D. Otto. 2008. Factors affecting sales at Farmers' Markets: An Iowa Study. *Review of Agricultural Economics*. 30(1): 176-189.
- Walmart. 2014. *Sustainable Agriculture*. Available at: <u>http://corporate.walmart.com/global-responsibility/environment-sustainability/sustainable-agriculture</u>
- Wang, P.P. and J.G. Nevius. 2013. Promoting Urban Agriculture: Insurance as an Important Tool. *Environmental Claims Journal*. 25(4): 320-330.
- Wilson, G. 2002. Can urban rooftop microfarms be profitable? *Urban Agriculture Magazine* 7:22–24.
- Zapata, S.D., Carpio, C.E., Isengildina-Massa, O., and Lamie, R.D. (2011). Do Internet-Based Promotion efforts Work? Evaluating MarketMaker. *Journal of Agribusiness*,29(1): 159-180.

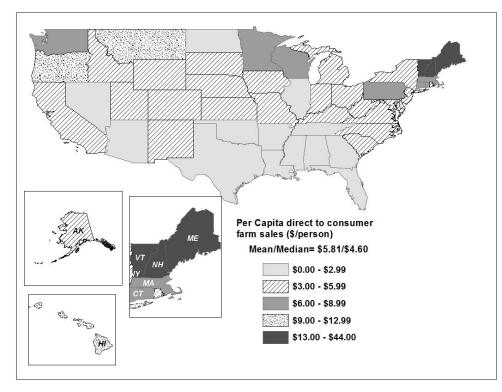


Figure 1: Annual Per-Capital Direct-to-Consumer Farm Sales By State, 2012 Data Source: Census of agriculture, 2012.

Program Characterization	Program Type	Description	Geographic Bounds ¹	Product Form(s)		Primary Marketing Focus		
				Raw	Processed	Within Locality	Outside Locality	Example
Product and Region	Federal Marketing Orders and Agreements ¹	Orders and agreements to help stabilize the market conditions for a specific industry • Scope varies but can include: production research, standard	MS Regions WS Regions	V			•	Texas Citrus (Oranges and Grapefruit)
		setting, inspection, promotion, advertising, and education and supply control activities.						
	State Marketing Orders and Agreements	 Orders and agreements to help stabilize the market conditions for a specific industry. Program names and scope varies but generally includes: production research, promotion, advertising, and education activities. 	State WS Region	~		•	•	Washington (State) Beer Michigan Asparagus
	Marketing Commissions, Marketing Councils, Marketing Boards, Advisory Boards	Terms vary in use. Generally responsible for oversight or providing guidance concerning the operation of marketing facilities, an industry association, or a federal or state marketing agreements. May have regulatory authority.	Region, State	~	✓	•	•	Greenville County (SC) Marketing Commission Indiana Corn Marketing Council Hazelnut Marketing Board
	American Origin Products (AOPs) ^{2,3}	Products with specific qualities or characteristics which, due to growing conditions,	MS Regions WS Regions	✓	✓		•	Idaho Potatoes Kona Coffee

Table 1: Major Public and NGO Structures Available to Support Marketing of Local Foods in the United States

Product and/or Region	Non-Price Export Market Development Programs ⁴	are deeply rooted in a specific geographic region in the U.S. Federal government efforts to build, maintain, and expand overseas markets for U.S. agricultural products		✓	✓		•	Among current initiatives: Ginseng Boar of Wisconsin Synergistic Hawaii Agriculture Council
	Export Credit Guarantees	Loan guarantee program to facilitate the extension of credit by U.S. private financial institutions to buyers in emerging markets who want to buy U.S. Ag exports.		~	V		•	
	Marketmaker™₅	Comprehensive, interactive, database of farms, food manufacturers, and other agribusinesses	Multiple States	√	\checkmark	٠	•	
Region	State Farm and Value-Added ⁶ Product Promotion Programs	 Promote the purchase of farm and value-added products from particular state Secondary objectives may include: awareness and education of state's agriculture sector, rural economic development 	State	✓	✓	•		Pride of Dakota West Virginia Grown
	"Buy Local" Campaigns	Promote the purchase of farm and value-added farm products from region	MS Regions WS Regions	✓	✓	•		Buy Fresh Buy Local Southeast Iowa

¹ Abbreviations: MS Region = Multiple-state region; WS Region = Within-state region

²Information available at: <u>http://www.aop-us.org/</u>

³ Within AOPs are a small subset of products known as Geographical Indications (GIs) which have sought and received legal protection against the use of the product's name by those outside of a geographically defined production area. While common in Europe, this term is not used extensively in the U.S. At present, the only U.S. product recognized GI are Napa Valley Wines whose name is protected in Europe, mainland China, Canada, and several other countries.

⁴ Specific programs include the Market Access Program (MAP), the Foreign Market Development Program (FMDP), the Emerging Markets Program (EMP), the Quality Samples Program (QSP), and the Technical Assistance for Specialty Crops Program (TASC). Raw and processed local foods sales could particularly benefit from the TASC and MAP programs respectively.

⁵ Information available at: <u>http://foodmarketmaker.com/</u>

⁶ In several instances value-added food promotion programs are not explicitly for processed food products but rather are included as a component of general promotion programs for all processed and manufactured goods from the state.