

Community Economics of Local Foods

Steven Deller and Maureen Stickel

JEL Classification: Q18, R11

Keywords: local food, food policy, food system

Development of the local food sector has become a popular strategy employed by a range of communities in the hopes of achieving sustainable and equitable economic growth and development. The term “local foods” describes a range of economic activities such as farmers markets, community supported agriculture engagements (CSAs), urban gardening, food hubs, and intermediated marketing channels. Despite its growing importance in the policy arena, the presumptions of the local food movement remain largely untested. Reading through the local foods literature, it is clear that many view the development of local foods as a panacea for a range of social ills. These social ills range from unhealthy lifestyles, diets, ecologically unsustainable production, withering social capital, food insecurity, and asymmetric economic growth and development and political power.

One of the fundamental problems with our understanding of how local foods may or may not be a viable strategy for rural community economic development is that much of the available evidence is more speculative than based on rigorous scientific analysis. As eloquently argued by Born, Branden, and Purcell (2006) there is a tendency within the local foods literature to presume that if global or large scale is bad then local or small scale must be good. They refer to this idea as the “local trap”. Despite the volumes of work written on local foods and community well-being there are as many unanswered questions as there are definitive answers.

This theme issue of *Choices* is composed of three articles that aim to help us better understand what we know, and perhaps more importantly, do not know about how local foods influence community well-being. In the first article,

Articles in this Theme:

What Do We Mean by “Local Foods”?

Dawn Thilmany McFadden

What We Know and Don't Know About the Economic Development Benefits of Local Food Systems

David W. Hughes and Kathryn A. Boys

What Policy Options Seem to Make the Most Sense for Local Food?

Chyi-lyi (Kathleen) Liang

Dawn Thilmany McFadden addresses a fundamental question. If we are to better understand the local foods market and how it impacts local communities we must first come to a working understanding of what we mean by local foods. Perhaps more important, if we are to craft effective policies aimed at fostering local food markets we must have a working understanding of what local foods entails and does not entail.

In the second article, David Hughes and Kathryn Boys outline not only a framework to help us think about local foods within the context of community economic development but also point out some of the limitations to local foods as an economic development strategy. Hughes and Boys point out that the local foods and community well-being milieu can be both subtle and complex at the same time. For example, if we think of local foods as an economic cluster in the spirit of Michael Porter, we must

move beyond thinking about industrial linkages and begin to think about how positive social capital around local foods can reinforce the industry. This means we must think more broadly than just economics and rethink the culture of the community. Other elements like quality of life come into play and how local foods can enhance quality of life which can influence other business sectors. These are complex interrelationships that we are only now coming to understand.

If we elect to move forward with local food initiatives, what are the policy options available to us? Kathleen Liang attempts to provide some insights in the third article. Liang is clear to point out that communities must think deeper than simply promoting farmers markets and CSA farms. Policies must look at all purchasers of food including local schools, hospitals and even jails and prisons. Perhaps

most important is how local food producers market through traditional retailers like local grocery stores and restaurants. Using the Louisiana buy local initiative for restaurants, Liang identifies specific strategies that could be pursued at the local and even state level. Perhaps the simple identification of the challenges that local producers, consumers and communities will face is most telling. For example, the whole infrastructure of a distribution network needs to be rethought.

In the end, there are opportunities for local foods as part of the community economic development puzzle. For some communities the local foods movement could be a large piece of the puzzle and for others it will be a more modest piece. But if communities and policy makers are to move forward, it is important that they understand the strengths and limitations of local foods as a community economic development strategy.

For More Information

Born, Branden, and Mark Purcell. 2006. "Avoiding the Local Trap Scale and Food Systems in Planning Research." *Journal of Planning Education and Research* 26,2: 195–207.

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What Do We Mean by “Local Foods”?

Dawn Thilmany McFadden

JEL Classification: Q1, R3

Keywords: Consumer Behavior, Local Foods, Regional Economies,

The local food movement is arguably the most dynamic segment of the food system, contributing to the challenge to define it. Turning to a dictionary, Webster defines the term local as, “characterized by or relating to position in space: having a definite spatial form or location.” In a recent U.S. Department of Agriculture (USDA), Economic Research Service (ERS) report, Low and co-authors, suggest that localness may vary by the audience, purpose and data of the food system dimension where local is applied (Low et al., 2015).

Although geography is typically one of the key factors considered in local food systems, policy and program initiatives implicate a connection to a myriad of other aspects as well. According to the 2008 Food, Conservation, and Energy Act, local foods are defined as any foods produced within a radius of 400 miles or in the state where the food was produced as local foods, but this mix of transportation, distance, and jurisdictional criteria hints to the complexity of characterizing local foods (Low et al., 2015; Martinez et al., 2010). As one example of the implications of this complexity, Martinez et al. (2010) showed evidence that geographic proximity considerations have led to some controversy as to whether State-funded branding programs, which are aimed at promoting or identifying state-produced agricultural products, are part of the local food system. More recently, the Agricultural Act of 2014 did not provide a definition of local foods, perhaps because arriving at agreement on a definition defied consensus.

In essence, local foods are perhaps the most visible sector of the continually evolving “civic agriculture” paradigm (Lyson, 2004), a lens through which political,

socioeconomic and environmental concerns about the conventional food system are addressed. So, for those pursuing a fundamental concept of localized economic control, they may choose to play their advocacy role in the one realm where consumers make some of their most frequent decisions: at meal times, and in food markets. The recent USDA-ERS report on local foods integrated several “civic agriculture” dimensions, including environmental, economic competitiveness, consumer motivations for direct purchases and linkages to broader non-profit initiatives, into a scan of the local and regional food system update (Low et al., 2015).

So what other criteria—stated or simply assumed—may be underlying the term local foods in the minds of consumers, food industry stakeholders, and those seeking to support food systems that reverse the momentum of globalization to maintain food production in their home region? The growing set of consumer research and community development literature sheds some light on a broader characterization that suggests sustainable production practices, smaller businesses, more producer-oriented governance, and shorter supply chains which may all be implicit assumptions held by those supporting, investing in and consuming local foods.

Geography, Distances, and Consumer Perceptions

In historical terms, food production has always received extensive attention from geographers because so many elements of the sector are place-based in nature, including arable land, water, and appropriate climate. However, interest in how consumption varies across places is a more

recent area of interest. As a catalyst to the discussion of how local foods may intersect with distance traveled, Pirog and his co-authors estimated that food within the conventional production, distribution and retail systems in the United States now travels an average of 1,500 to 2,500 miles (Pirog et al., 2001). This much cited estimate was a catalyst for discussion of distances in supply chains, but there is still no clear agreement about what the “correct” distance may be, and fundamentally, if local and regional designations should be driven by place-based factors, such as population density, watersheds, or seasonality.

Since the term “local” does not have an official definition, researchers have asked consumers what they consider “local” or “regional, but not local” based on both physical distance and political boundaries (Onozaka, Nurse and Thilmany McFadden, 2010; Jekanowski, Williams and Schiek, 2000; Darby et al., 2008). In a 2008 national study, Onozaka, Nurse and Thilmany McFadden (2010) found over 70% of respondents considered a 50-mile radius as “local,” while the 300-mile radius is more likely considered “regional” than “local” by most consumers. This is an important delineation since 300 miles is often used as a boundary for “local” by retailers as a realistic distance to procure enough volume and variety, even before the 2008 Farm Bill provided its definition. In terms of political boundaries, over 40% considered food produced within one’s county as “local.” In contrast, food produced within one’s state was considered “regional” by the majority while only a smaller share considered it “local.” It would seem that there is heterogeneity in perceptions of the “local” and “regional” differentiating qualities of foods. In later research on the same survey, Onozaka, Nurse and Thilmany McFadden (2011) found that the definition of

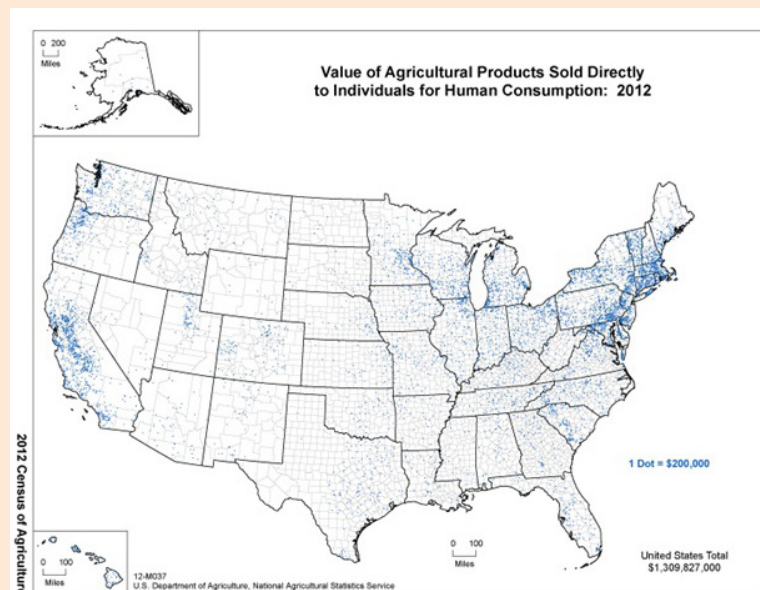
local was influenced by the channels where consumers sourced their produce, which in turn, influenced their willingness to pay for locally labeled products as well. So, local as a label may be closely linked to the marketing channels rapidly emerging alongside conventional retail food systems in the United States.

Locally Oriented Marketing Channels

One might imagine that consumers identify the degree of “local” by types of marketing channel rather than geographic distances because of their concern about the number of “middlemen” in the supply chain. In essence, those who did not want to support or trust the corporate food system may commit their buying dollars to local producers and markets based on their perceptions of greater integrity from those producers and food producers they could visit and relate with through shorter supply chains (Nurse, Onozaka and Thilmany McFadden, 2012; Hinrichs, 2000). So, an examination of dynamics within these channels is warranted.

USDA’s Agricultural Marketing Service (2013) reported the number farmers markets has grown dramatically, increasing 226% from 1996 to 2012, with over 7,800 farmers markets operating in the United States. According to the 2012 Census of Agriculture, the value of direct sales grew only slightly between 2007 and 2012 from \$1.2 to 1.3 billion, but 144,530 farms and ranches report some sales through these channels, up from 136,817 farms and ranches in 2007 (or 7% of all farms). Figure 1 shows that the intensity of this activity is not balanced across the United States, with notably higher total sales along the coasts and in the upper Midwest. Yet, some of those patterns could be correlated with higher farm activity overall, so Figure 2 shows what the average direct sales per farm was in 2012. There is still notable activity along the coasts and near major population centers, as one might expect, but perhaps the most interesting conclusion that can be drawn from these maps is how varied the focus or reliance on using local and direct markets is across farms.

Figure 1: Distribution of the Value of Direct Sales Reported by U.S. Farms and Ranches, 2012



In addition to direct sales, there are other marketing activities that can be commonly associated with local foods and entrepreneurial activity around localized food systems (Martinez et al., 2010). According to the 2012 Census of Agriculture, 49,043 marketed directly to retail outlets (a data point collected for the first time in 2012), 94,799 produced and sold value-added products (up by almost 20% from 79,418 farms and ranches in 2007), and 12,617 operated Community Supported Agriculture programs (CSAs) (up slightly from 12,549 in 2007). Across all types of locally-oriented farm activities, there is increased participation. Perhaps this represents the type of market diversification often recommended to producers, and fueled by those consumers and communities wanting to have a more locally resilient food sector.

How does the use of these markets affect farm viability? That may be important to consider if consumers are using local markets as a way to support their local agricultural

industry. Low and Vogel (2011) find that sales per acre is highest for fruit and nut and vegetable farms selling locally (\$1,338 per acre on an average of 76 acres) when compared to that of all local food farms (\$590 per acre) and all farms (\$304 per acre) on average. Farms using both direct and intermediated marketing channels, defined as sales to middlemen like grocers, restaurants, and regional distributors, averaged \$1,310 per acre. Farms using intermediated marketing channels exclusively, which tend to be the largest farms, averaged \$3,100 per acre. So, some of the patterns observed in Figure 2, may be influenced by whether farmers markets are the sole outlets—suggesting lower gross direct sales—or if some type of locally driven food hub or distributor alliance has allowed producers to sell to bigger institutional buyers as well.

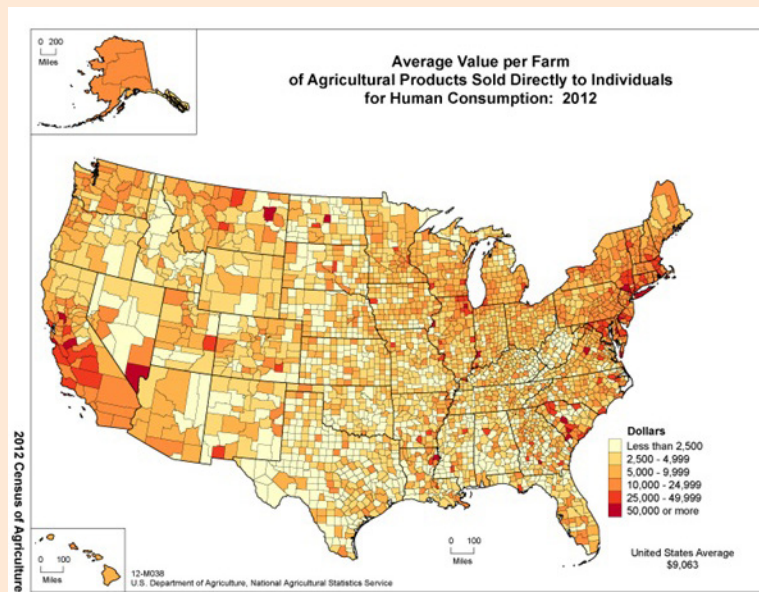
Consumers' Expectations of Local

Beyond opinions for acceptable distances of local foods to travel and the trends in the markets where they are found, it is worth exploring the role

of consumers that catalyzed direct markets, food retailers adopting new local procurement policies, and the more recent emergence of urban food systems in and near metropolitan areas (Martinez et al., 2010). Over the last decade, several projects have explored how consumers translate the higher prices they pay for local (as well as organic and other sustainable food segments) to changes or outcomes they would like to support in their agricultural industry and food system (Thilmany, Bond and Bond, 2008; Onozaka, Nurse and Thilmany McFadden, 2010; Deselnicu, Costanigro and Thilmany, 2012). Thilmany, Bond and Bond (2008) were the first to explore if local purchases were driven by altruistic intentions rather than simple distances to market. Although higher local price points were often associated with perceived quality benefits (perhaps based on shorter distances translating to fresher product), they also found consumers were using their buying dollars to keep nearby land in farms and supporting farm jobs.

In subsequent research, Onozaka, Nurse, and Thilmany McFadden (2010) found that a sizable number of buyers connect local food purchases with outcomes that may impact their environment, local economy, and public health. In addition to an increasing share of those consumers buying at least 25% of their fresh produce in alternative markets (including farmers markets and CSAs, but also health food stores), those shopping in the direct markets also were willing to pay higher prices. Nurse, Onozaka and Thilmany McFadden (2012) went one step further with that same 2008 national survey data by integrating a psychological approach, the Theory of Planned Behavior (TPB), to explore how consumer choices may be shaped by beliefs and persuasion. For a subset of the respondents, Nurse, Onozaka, and Thilmany McFadden (2012) found that purchases through shorter supply chains such as

Figure 2: Average County-Level of Direct Sales Reported by U.S. Farms and Ranches, 2012



direct markets, resulted in a heightened sense of self-efficacy leading some consumers to make behavioral changes in their food purchases. In short, the question “what is local?” may not be defined by distance between producers and farmers, but rather, by the credibility of producers’ mission or claims that align with the issues and food system changes desired by customers. Similarly, Thong et al. (2014) found that local labels had a strong substitution effect with support for small and family farms. These findings begin to suggest a new dimension of Corporate Social Responsibility (CSR) where not only do households scrutinize their

investment dollars, but also the consumer companies they support, based on alignment of values with those businesses.

To explore this further, Deselnicu, Costanigro and Thilmany (2012) surveyed Colorado milk consumers on a variety of labeling issues, including how they perceived different labels as impacting food system issues. In short, participants were asked to use a quantitative scale (from -5 “much worse” to + 5 for “much better”, in increments of one) to express how fluid milk displaying a specific label certification—USDA Organic, RBST-free (hormone-free), Validus (a third

party certifier focused on animal and worker welfare), and Local-Colorado Proud—was perceived to perform in the nine selected CSR. Most of the areas are self-explanatory, but Table 1 shares the statements that were shared with respondents. A key focus to this study is the local area which states: “The company uses local resources and generates local growth. The local economy is stimulated by creating jobs locally.”

Since the research objectives focused on how product labels may be a vehicle for transmitting CSR involvement information in a grocery store setting where consumer purchase decisions are made, mapping such label perceptions can define “What is Local.” Figures 3a and 3b show how organic and local labels map into perceived CSR outcomes (averaged across study participants) to provide a comparison. Visually, the closer the shape moves towards criteria, it signals that consumers were more likely to associate that label with impacts on that particular CSR outcome. In short you can see both the direction and multidimensionality of a label’s information transmission to the buying public.

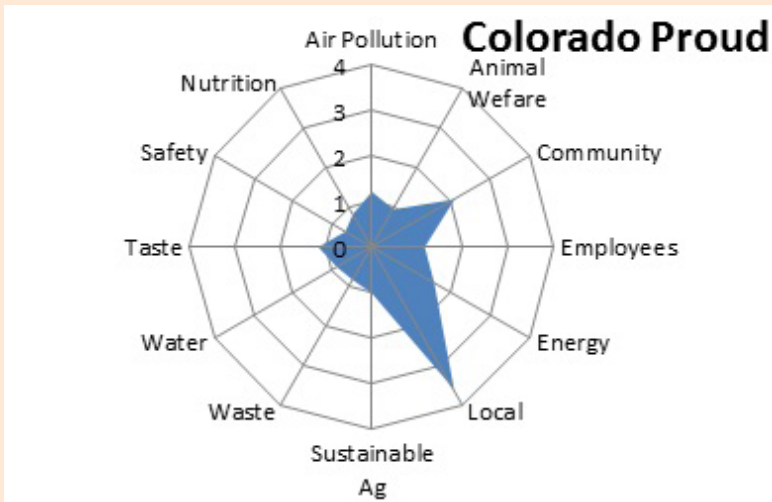
Results suggest that the organic label is multidimensional in that it is positively associated with animal welfare, energy, sustainable agriculture, waste management, taste, and nutrition. In contrast, the “Colorado Proud” label is associated with reduced air pollution, community involvement, local business, and taste. Multidimensional labels, such as organic, communicate cues mapping into a wide spectrum of outcomes and may have the advantage of appealing to a large number of consumers with diverse preferences. In contrast, local appears to be a more one-dimensional label, thereby transmitting a more focused message to consumers. But, this may also increase the pressure or scrutiny for local food systems and labeled food goods to demonstrate

Table 1: Corporate Social Responsibility (CSR) Activities Considered for Labeling

Dairy CSR Activities	Description
Animal welfare	There is a commitment to maintaining animal health through monitored nutrition and on-staff veterinarians, and reproduction by natural breeding rather than artificial insemination. Also, animals are kept outdoors on pastures rather than enclosed barns.
Energy consumption	Refers to the use of energy saving equipment in milk processing, and also to making transportation of milk to processing plants and retailers more energy efficient.
Water consumption	Implement recycling water programs through a water treatment facility and save water by using limited irrigation schedules to irrigate pastures and crops.
Air pollution	Manage the release of bovine methane by encouraging managed grazing and carbon soil sequestration. Also, decrease air pollution by making milk transportation from farm to plant and retailer more fuel efficient.
Community involvement	Company should be involved in charitable organizations, should implement volunteering days, and create and support local community programs.
Employee opportunities	The company should provide fair or above market wages, medical benefits, vacations, and retirement plans to employees. Employee advancement in company hierarchy is encouraged, as well as diversity in the workplace.
Local operation	The company uses local resources and generates local growth. The local economy is stimulated by creating jobs locally.
Waste management	Waste management refers mainly to composting solid waste to be used as fertilizer and monitoring waste runoff to the local water table.
Sustainable agricultural practices	Commitment to maintaining good soil health for a sustainable future of the business and the environment. Soil health implies practices such as the use crop rotation; using compost as natural organic fertilizer, and never using chemicals in maintaining a fertile soil.

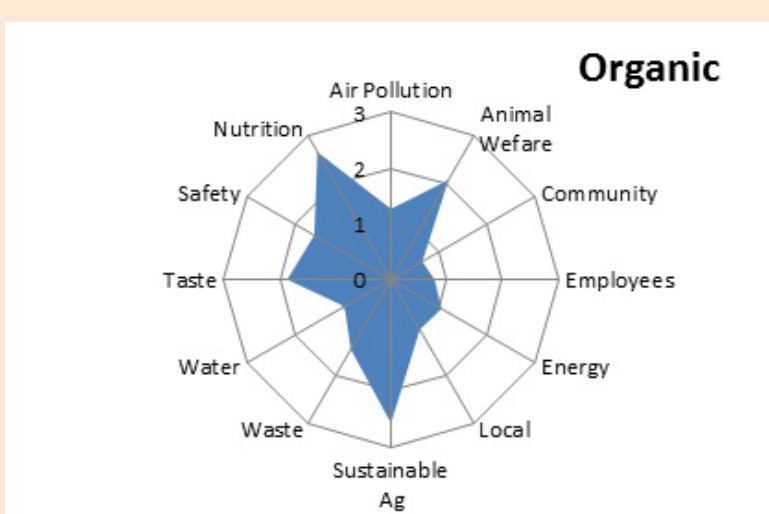
Source: Thilmany, Deselnicu and Costanigro, 2013

Figure 3a: Consumers' Linkages Between Labels and Outcomes, Colorado Proud



Source: Thilmany, Deselnicu and Costanigro, 2013

Figure 3b: Consumers' Linkages Between Labels and Outcomes, Organic



Source: Thilmany, Deselnicu and Costanigro, 2013

that those claims of supporting the local economy and creating local jobs are credible. For short supply chains, these claims may be evident as buyers see farms hire new production and marketing staff or buy their inputs from local businesses, but as local food systems grow into intermediated businesses and food hubs, the challenge to communicate the impact may grow.

Why Does it Matter?

Why should we worry about better understanding what is local? One could argue that there are both marketing and policy implications. The local food segment was first officially defined by the United States Congress in the Food, Conservation, and Energy Act of 2008, with the following criteria: the total distance that a product can be transported and still be considered a “locally or regionally

produced agricultural food product is less than 400 miles from its origin, or within the state” (Martinez et al., 2010). The intended outcomes used to support more localized initiatives were primarily to improve competitiveness of producers and support local economies. One specific example is the earlier modification of the USDA Rural Development Value-Added Producer Grants program to designate local marketing as a form of value-added having equal importance with processing raw products into higher value goods. More recently, the Agricultural Act of 2014 disentangled a Local Foods Promotion Program from the Farmers Market Promotion Program operated by the USDA-Agricultural Marketing Service in recognition that farmers markets are only part of the local foods marketing infrastructure today.

In markets, the evolving role of local designations is perhaps a bit more complicated and subtle to define. The research and—more broadly—perceptions of what outcomes local-seeking consumers expect from the local foods they purchase suggests there may be increasing scrutiny of the use of local designations. For example, even buyers of certified organic products seem wary of corporate ownership of organic food companies, so those seeking local will likely question potential “greenwashing” by the more conventional food retailer sector if local offerings are not presented authentically (for example, with signage about the farm of origin). When there are short supply chains, such as when producers interact directly with their buying public or are part owners of a food hub distributing regionally, few challenge the notion of “local” labeling. However, as state branding programs, such as *Pride of New York* or *Ohio Proud* are used to connect an increasingly engaged set of corporate food retailers to procure locally, the degree of “localness” may be scrutinized, or valued less, by at least some of the buying public.

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This study was funded with support from the Colorado Agriculture Experiment Station.

What We Know and Don't Know About the Economic Development Benefits of Local Food Systems

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JEL Classification: Q01, Q19, R11, R58

Keywords: Economic Clusters, Entrepreneurship, Local Foods, Quality of Life, Social Capital

The potential economic development benefits generated through local food systems are diverse. Numerous claims have been made concerning their possible benefits. However, many of these claims have not been tested by social science research. Of special importance to public and private decision makers is how local food systems (LFS) contribute to the development of the local entrepreneurial environment, economic clusters, regional branding opportunities, social capital, and local quality of life factors.

Economic Clusters

Research has shown that a region's smaller agricultural producers do benefit from LFS by an expanded demand for their products. Moreover, those who supply production inputs—including labor—and other industries that complement the food system have also been shown to benefit from increased demand for their products and services. These benefits can arise through two primary channels. The first is through supply-chain linkages where the various components of local economies are impacted by LFS sales. The impacts of such linkages have been well documented, especially for farmers' markets, but also for food hubs and farm-to-school efforts. In this regard, the general conclusion among the better studies is that the impact of LFS on local employment and income is positive and growing, but small (Boys and Hughes, 2013). The second channel can be through linkages between businesses either directly or through an intermediary—such as a business-supported workforce training program at a local community college. Especially the latter channel can reduce the cost of doing business through what economists term “agglomeration

economies,” that is, general reductions in costs because business activity is grouped or clustered in a particular area.

Economic clusters are “geographic concentrations of interconnected companies, specialized suppliers, service providers, firms in related industries, and associated institutions in a particular field that compete but also cooperate in producing similar products” (Porter, 2000). Being located near one another offers clustered firms possible productivity advantages in economics of scale (reducing cost per unit of output by becoming larger), economics of scope (producing a broader mix of products), a reduction in distance-dependent costs, and other positive opportunities.

The tendency of LFSs to cluster has received little research attention. Other studies have, however, indicated the benefits of economic clustering, in general, for rural areas. Gabe (2005) found that rural areas possessing economic agglomerations had higher rates of investment than their rural counterparts. Lambert, McNamara, and Garrett (2006) found that food manufacturing non-metro counties near urban centers have an advantage due to the spillover of agglomeration economies and transportation linkages from the urban centers. Barkley and Henry (1997) argued that rural communities with established industry agglomeration may want to build on their clusters and that rural communities with small industry clusters may opt to pursue a cluster promotion strategy. But rural communities with no existing, distinct cluster are unlikely to be successful in pursuing a cluster-based economic growth strategy.

Economic clusters may be generated due to independent co-location decisions of an industry's stakeholders or through intentional firm recruitment efforts by a region's

leadership. To the extent that LFS clustering may occur, are the clusters formed by “blind” market forces or intentional policy designs? Do the origins matter to the type and extent of positive effects generated by the cluster? Once again, the research is very limited although a study of local food production in England (Ilbery et al., 2006) found that LFSs tended to cluster proximate to higher-income, urbanized areas; certain tourist attractions; small landholdings; and certain types of agriculture. Given that these limited results generalize to other areas—itsself an issue greatly in need of additional research—to what extent do the benefits of clustering dissipate with distance from an urban setting?

Our understanding of the mechanisms by which LFS growth occurs is also incomplete. Does the development of one successful marketing channel—for example, farmers’ markets—foster the development of other marketing channels—for example, Community Supported Agriculture arrangements? Or, do channel alternatives develop independently? Does the presence of a farmers’ market lead to the establishment of additional farmers’ markets because of knowledge spillovers—for example, my new farmers’ market is better run because I learned from a nearby, established market—or other factors? And, if so, is the supply and demand of LFS products sufficient to allow all to thrive? The early research on this latter point is not encouraging and has found examples where new marketing outlets may cannibalize older outlets through competition for customers or vendors (Lohr and Diamond, 2011; and Zezima, 2011). Spatial econometric analysis—statistical analysis that accounts for the effect of physical proximity between observations—and case studies should throw additional light on the degree and nature of LFS clusters.

Social Capital

Social capital can be defined as connections or networks among people and institutions—such as governments and nonprofits—and the formal and informal accepted social norms and values under which these connections operate (Westlund and Adam, 2010). Social capital is a key element in the success of an LFS (Boys and Hughes, 2013; Brasier et al., 2007; and Korsching and Allen, 2004) in particular because networks can provide critical market information to LFS firms (Kirzner, 1997). More generally, meta-analysis—where statistics are employed to see where studies of a particular topic tend to agree or disagree—of 21 studies by Westlund and Adam indicates that social capital is often important for the growth of individual businesses, but that impacts on regional economic growth are unclear. Arguably, however, appropriate forms of social capital are important elements in economic development through information exchanges as part of cluster formation, for example (Rosenfeld, 1997). The possible impact of social capital that results from the development of LFSs on broader community attributes has not been examined. That is, we don’t know whether LFS-generated social capital is in support of, a detriment to, or has no impact on local economic growth or community development. Given that research indicates the types of social capital are important in terms of economic growth, do LFSs tend to generate bonding social capital—strong ties between like-minded people and organizations—which often correlates with a lack of growth? Or, do LFSs tend to generate other forms of social capital, such as bridging social capital—linkages of a horizontal nature between groups with differing backgrounds and usually varying strengths or abilities—or linking social capital—relationships with people or organizations with political

or financial power—which are viewed as especially advantageous for more disadvantaged groups? In general, the impacts of the latter two forms of social capital have been seen as more positive for regional economic growth and community development (Sabatini, 2008), especially in rural areas (Atterton et al., 2011).

Given the difficulty of accurately measuring the effect of social capital on economic growth—for example, accounting for informal ties in addition to formal ties such as organizational membership—this remains an area for future work. Case-study-based surveys may be required to further tease out the effects of LFSs on local social capital with any resulting impacts on economic growth and community development.

Quality of Life

Interest in local foods is becoming increasingly engrained in lifestyle choices. Builders are integrating local food production into new housing developments. Cities are integrating community gardens into established housing communities. Farmers’ markets are intentionally established in urban food deserts.

Florida (2002) argues that the factors determining economic growth of regions have radically changed. As a result, he contends that “the new economy” has radically altered the way in which places compete. He argues that rapidly mobilizing talented individuals based on key resources is a means of turning innovations into new commercial products and businesses and, ultimately, regional growth. Talent is attracted by quality-of-life factors such as local amenities, lifestyles, and the natural environment. Glaeser (2011) persuasively shows that the Florida model is simplistic in that higher wages, cheaper housing, and a pleasant climate have been at least as important to local economic growth as “controllable” quality-of-life factors.

But given that quality-of-life factors are at least somewhat important, to what degree does or could a well-developed LFS play in enhancing the local quality of life and, hence, play a role in attracting place-oriented workers? While econometric—that is, statistical analysis—approaches may shed light on this topic, survey-based case studies of places with relatively strong LFSs could also shed additional light on this topic. In this respect, research could center on to what degree do LFSs enhance local quality of life, and to what degree is regional economic growth influenced by LFS-based local quality of life.

Business Development

LFSs foster business development by either encouraging the establishment of new businesses or by adopting new marketing and business strategies among existing businesses.

LFSs and Entrepreneurism

Although agriculture has been ignored in most entrepreneurial studies and datasets (Alsos et al., 2011), several authors have argued that LFSs contribute to the local entrepreneurial spirit (Lyson, 2004; and Lyson, Gillespie, and Hilchey, 1995). Despite the emphasis on entrepreneurial development, the typical small business owner does not fit the role of an entrepreneur (Hamilton, 2000; Walker and Brown, 2004; and Hurst and Pugsley, 2011). That is, the majority of small business owners are non-innovators who emphasize non-monetary goals—such as “being your own boss”—as opposed to the growth-oriented innovators found in entrepreneurial-based growth theories. Given this background, to what degree are LFS firms true entrepreneurs in the Schumpeterian sense—that is, they introduce a new good or service, open a new market, introduce a new production process, develop a new source of input supply, or develop a new way of organizing

a business—versus being a typical small business owner? Assuming that LFS providers do have a tendency toward innovation, to what degree do their innovations spread in the local economy and to what degree does their innovative activity contribute to the development of a local entrepreneurial spirit? Once again, a set of case studies could be used to help provide answers to these questions under a variety of settings.

Arguably many entities involved in LFSs can be considered social entrepreneurs, which are profit or nonprofit organizations seeking to solve societal problems and, thereby, create social value (Lyons, 2014). To what degree is social entrepreneurship warranted as a component of an LFS, and to what degree do they compete with or possibly supplant local profit-making enterprises that serve a similar role? For example, to what degree would a local, nonprofit-based food hub compete with a profit-making wholesaler who seeks to play a major role in the LFS? More to the point, to what degree do LFS-based social entrepreneurs contribute to the general, local social well-being?

LFS as a Marketing Strategy

Businesses that are not part of the traditional local foods system are starting to make substantial investments in local food markets. Angel and other investment funds such as Foodshed Investors—as SlowMoney NYC in the New York City area—and Sustainable Local Food Investment Group in the Chicago area are emerging as explicitly focused on local food businesses. Innovative builders are now incorporating everything from community gardens to whole working farms including livestock into subdivision development projects. In the United States, it is estimated that there are already more than 200 housing developments with an agricultural component (Harvest Public Media, 2013). Many restaurants,

food manufacturers, and retailers, are also intentionally increasing their procurement of local food products. Wal-Mart, for example, one of the world’s most globalized retailers, has committed to increase its U.S. purchases of locally sourced produce to 9% of the category’s sales by 2015. To the extent that these strategies induce higher consumer willingness to pay for these products, in aggregate these firm-level strategies can contribute to a region’s economic growth.

The type and extent of commitments that firms outside the traditional communities are making to LFSs suggest they perceive strong market signals that consumer interest in local foods are expected to continue for some time. Many questions remain, however, about use of an LFS as a marketing strategy for conventional agribusiness firms. To what extent does a firm’s claimed connection to an LFS impact consumer demand for their product? Are there specific segments of the agribusiness production and marketing system—such as supermarkets or restaurants—where this strategy would be particularly effective? What marketing tactics lead to perceptions of “localwashing”—where non-local products are promoted as being local—and what are the impacts of this on a firm or its industry? Most important, from our perspective, is how do such firm-based marketing strategies impact the contribution of an LFS to a local economy? In particular, how pervasive is localwashing becoming and what is the negative impact of localwashing on the growth and contribution of an LFS? Demand analysis of firms that are employing local foods as promotional and marketing tools would help shed light on such issues.

Regional Branding

Regional branding programs promote the purchase of farm or value-added products from a particular region. These programs vary in their

geographic scope; while many are dedicated to promoting products from a particular state, others are focused on within-state or across-state regions. The audiences for these campaigns also differ. While some programs encourage consumers to substitute local products for those imported into the region, others aim to foster demand for homegrown products among foodservice operations, food retailers, institutions—such as schools or hospitals—or manufacturers either within or outside the local region. At present, almost every state and more than 75 sub- and inter-state regions have regional branding programs (FoodRoutes, 2015).

Investment in regional branding programs and their assessed effectiveness have been found to vary by location and across time (Govindasamy et al., 2004; Carpio and Isengildina-Massa, 2010; and Nganje, Hughner, and Lee, 2011). Due to differences in scope and analytical approaches, it is not possible to directly compare the results of these findings. While initiatives that lead to more demand for value-added products or sales outside of a region are likely to generate a larger economic impact, it is not clear which program components best achieve these outcomes. For example, are promotional campaigns oriented toward local households more effective in generating economic growth than efforts aimed at increasing sales to large institutional buyers? Further understanding of the extent to which successful program components can and should be tailored before program adoption in other settings is needed.

Perhaps more fundamentally, however, is the uncertainty of whether all areas are truly good candidates for regional branding campaigns, and whether other attributes contribute to the success of such efforts. Quantifying the impact of efforts that partner regional food-branding campaigns with other general or industry “buy

local” initiatives is needed. Similarly, interactions between “buy local agriculture” programs that cover the same region are in need of assessment. Products from Page County in Virginia, for example, could be promoted through a chamber of commerce “Page County Grown” initiative, through the Virginia Cooperative Extension Based “Shenandoah Valley Buy Fresh, Buy Local” program, or through the State Department of Agriculture’s “Virginia Grown” for raw or “Virginia’s Finest” for value-added food promotion programs. The point of consumer saturation with regional branding campaigns, and the extent to which there is “cannibalism” in terms of the effectiveness of geographically overlapping branding campaigns, should be explored. Once again, spatial-based econometric analysis—statistical analysis that accounts for the effect of physical proximity between observations—and case study analysis would help shed light on this set of issues.

LFS and the Impacts of “Beggarthy-Neighbor” Policies

Implicit in the intent of regional branding programs is to increase consumption of local products at the expense of those from outside the region. As raw food products are frequently also sourced from other regions, successful branding programs may inadvertently economically injure agriculture production in these other areas. In international economics settings, through “beggarthy-neighbor” policies, such actions can result in retaliation by the injured regions that ultimately may lead to everyone being worse off. In this context, as one region promotes its LFSs, other areas may retaliate by promoting their own LFSs and the result may be a decline in regional exports for all.

While studies have found value in inter-industry advertising coordination (Alston, Freebairn, and James, 2001) and interregional retail-firm

recruitment in small or isolated rural areas (Thilmany et al., 2005), to date there has been no research on this issue as it directly applies to LFSs. Insight is needed as to when it is more effective to reach external consumers through “local” branding versus coordinating a region’s branding across localities or industries and commodities. This may be particularly true for value-added, processed goods that are more easily sold to non-local markets. Importantly, as well, aggregate-level questions concerning the extent to which LFS-based regional branding strategies lead to an inefficient geographical allocation of resources need to be explored. Urban, suburban, or less-isolated rural areas—all with access to large retail markets—may also take advantage of more rural areas in this regard. Interregional trade models which attempt to explain trade between areas based on area supply and demand, and more general tools of retail analysis, could help evaluate whether this possible issue is indeed a problem.

Next Steps

It is clear that the relationship between LFSs and various aspects of community and economic development is a fruitful area for policy-relevant research. While we know that LFSs currently have real yet small economic impacts in terms of supply-chain linkages, other benefits—such as cluster development—have only been lightly touched on or not examined at all, such as in the case of social capital, quality of life, and the various “other” business impacts. Understanding the role that local food systems can potentially play in a local economy, with any degree of confidence, will also need to be tailored to a particular region. For example, would conclusions hold in all types of communities?

Such issues are important because communities often consider making investments in an LFS infrastructure,

such as building a shared-use kitchen facility, or must consider changes in local and regional policies, such as allowing food truck sales locally. In making such decisions, estimates of the full local impact are very important. However, other, more indirectly generated benefits could also accrue to local communities with the development of an LFS.

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Senior authorship is unassigned.

The authors would like to thank Tina Johnson for her helpful comments.

What Policy Options Seem to Make the Most Sense for Local Food?

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JEL Classification: Q10, Q18

Keywords: local food, food policy, food system

Visiting farmers markets every Saturday becomes a regular trip for many local residents and visitors. Individuals living in northeast Vermont, for example, have undoubtedly cultivated a sense of “local food”. These trips have led to significant growth in the activities of farmers markets across the states, and have generated ripple effects to benefit surrounding enterprises and communities. Many of the interactions between producers and customers—the majority of whom are passionate about local food—often lead to discussions about designing, creating, and improving local food networks across states and regions. Often the discussion involves policies that either support or hinder the development of farmers markets or other initiatives, such as permits, acceptable payments, insurance requirements, labeling issues, and food safety. Farmers markets are only one of the fast expanding dimensions of local food development. Many new initiatives at the federal, state, and local levels have been discussed, designed, planned, and implemented to support the local food movement.

An Overview of Federal Initiatives

Between 1994 and 1998, the U.S. Department of Defense (DoD) proposed and implemented a program called the Fresh Program that began buying local food for schools and hospitals. An original purpose of the Fresh Program was to take advantage of unused trucking capacity in DoD. The Fresh Program partnered with the U.S. Department of Agriculture (USDA) to acquire fresh produce for state institutions with preferences given to local small and medium-sized farms in each state (USDA, Food and Nutrition

Service (FNS), 2010a and 2010b). Since 1996, a series of acts were passed by the U.S. Congress to promote and support local food purchases such as the Community Food Security Act, the Community Food Project Program, the Community Food Security Initiative, and local wellness programs focused on building local food into a part of a healthy eating solution (Kantor, 2001; Starr, et al., 2003; Hamilton, 2005; Matteson and Heuer, 2008). USDA’s FNS administers two programs that promote the use of farmers markets and are available in most states: The Women, Infants, and Children’s Farmers’ Market Nutrient Program and the Senior Farmers’ Market Nutrient Program (Hamilton, 2005).

The USDA introduced a new initiative in 2009, *Know Your Farmers, Know Your Food*, to promote sustainable local and regional food systems. This initiative aims to support small and mid-sized farms and ranches, to strengthen the connections between farmers and consumers in rural communities, to promote healthy eating, and to protect our natural resources (USDA, 2009). In 2012, the USDA allocated and released \$9 million in grants through the Farmers’ Market Promotion Program to support over 8,000 farmers markets through various organizations across 39 states, the District of Columbia and Puerto Rico to support projects that will improve the connection between agricultural producers and their consumers (USDA, 2012). Between 2009 and 2012, USDA granted 89 Community Food Project awards, 56 Beginning Farmer and Rancher Development projects, 440 Farmers Market Promotion Program awards, and 874 Specialty Crop Block awards.

Many Faces of State Initiatives

Several state and local governments have followed the USDA's effort to establish their own initiatives to promote local food purchases. The usage of the electronic benefit transfer (EBT) cards and the food stamps—also known as SNAP or Supplemental Nutrition Assistance Program—at farmers markets are two examples (USDA FNS, 2010b). The funding and support of local food purchasing at the state level have grown substantially since 2004. The National Conference of State Legislatures has compiled a comprehensive, searchable database that lists all of the state's policies and policy proposals relating to local food purchase since 2004 (Figure 1). Most of the state level bills promote farm-to-school programs and farmers markets. A few offer direct incentives to reduce the costs to restaurants that choose to purchase local food as ingredients.

Clearly the federal programs and policies play an essential role in shaping the future of farming and food distribution. Many issues, however, are characterized at the local or state levels given the diversity of culture, history, tradition, community profile, organizational structure, planning

priorities, social values and interactions, environmental and ecological factors, and economic incentives. The movement of local foods is nationwide, and the decisions and development paths are driven by state and local governments to target localized issues and needs. A summarized list of state and local initiatives specifically targeting local food issues include:

- State Anti-Hunger Initiatives

These initiatives require state and local officials to take advantage of eligibility opportunities in federal programs such as food stamps, to reduce barriers to participation in state anti-hunger programs, to actively promote food stamps and similar programs, and to educate consumers about healthy food choices focused on diet and nutrition management plan.

- State Institutional Purchasing Programs

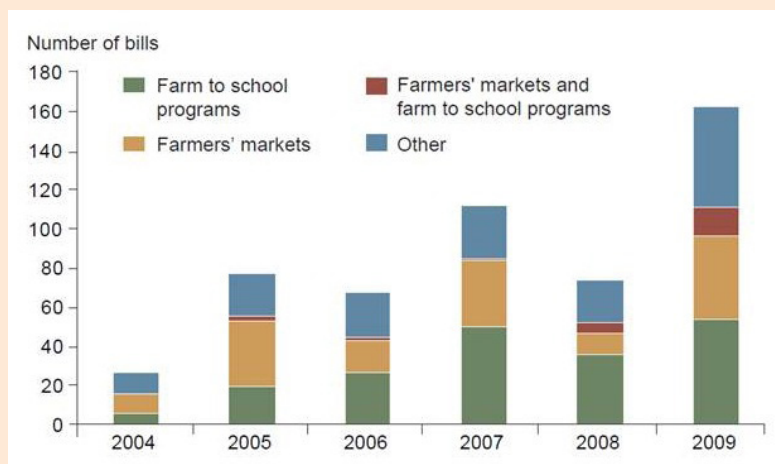
The state of Tennessee, for example, adopted a law in 2004, Tennessee Public Acts, Chap. # 473, introduced as SB2969, to support local food purchases. The bill requires the state departments and agencies to give preference to Tennessee produced goods and

services if they are at least equal in quality and price. A similar preference is given to vegetation used in landscaping. Another example is the state of Connecticut passing a Substitute House Bill No. 5508, Public Act No. 11-189 to set up the Governor's Council for Agricultural Development which mandates a means to increase local food expenditures to 5% of total food expenditures by 2020.

- State Programs to Support Direct Farm Marketing

Most states with laws on direct farm marketing emphasize creating and managing farmers markets or roadside farm stands. California and New York seem to be two of the strongest examples in supporting direct farm marketing. Other states such as Georgia and South Carolina both offer "Roadside Market Incentive Programs" to give the state Department of Agriculture authority to establish standards for the design and operation of roadside markets. One of the latest examples would be Hawaii's new law in 2013, introduced as AgriTourism Bill 148, that explicitly assists producers identify opportunities to develop pick-your-own operations, direct delivery of food items to consumers, and other strategies to promote local food.

Figure 1: State Legislative Bills Focusing on Local Foods, 2004-09



Source: National Conference of State Legislatures, 2010.

An Example of the Louisiana Buy Local Purchase Incentive Program for Restaurants

Louisiana is among the first states to adopt legislation that provides direct financial incentive to local businesses to buy local food as a way to support local agriculture. More specifically, the Louisiana Buy Local Purchase Incentives Program, passed by the legislature in the spring of 2011, is designed to encourage restaurants to buy local (Louisiana Laws, Revised Statutes, Title 3—Agriculture and

forestry, RS 3:284). The law provides an incentive equal to 4% of their cost to Louisiana restaurants to buy local agricultural products. The 4% applies to the total cost of Louisiana agriculture products purchased by a restaurant in any year. The law is very specific and inclusive in defining Louisiana agriculture products.

Just prior to the passage of the law, Liang and Dunn (2012) surveyed local independent restaurant owners/managers to identify all food related ingredients that would be utilized by restaurants, based on the types of cuisine offered and sourced in northeast Louisiana. They also collected information on the perceptions of “local.” Sixty-five percent of the 52 surveyed restaurants were located in urban areas in northern Louisiana, 52% of the respondents had fewer than five full time employees, and over 1/3 of the respondents started their restaurants in the last five years.

First, respondents were asked to identify what they considered to be “local,” even though Louisiana law defined “local food” to be within the state. There were four categories in the questionnaire for respondents to choose from: within 25 miles, within 50 miles, within 100 miles, and not sure; and only one answer should be chosen by each respondent. Twenty-seven percent thought it meant within 25 miles; 25% thought it meant within 50 miles, and finally 27% thought it meant within 100 miles. Nineteen percent or 10 respondents admitted they did not know what local meant. Secondly, 52% of the respondents indicated that they purchased local frequently, 19% occasionally, 17% seldom, and 9% never. Perhaps surprising, in light of the current national interest in local food sourcing, restaurant owners/managers in Louisiana in the survey revealed that customers did not seem particularly interested in local foods, and customers only occasionally asked if local food was used—only 3.8% of the

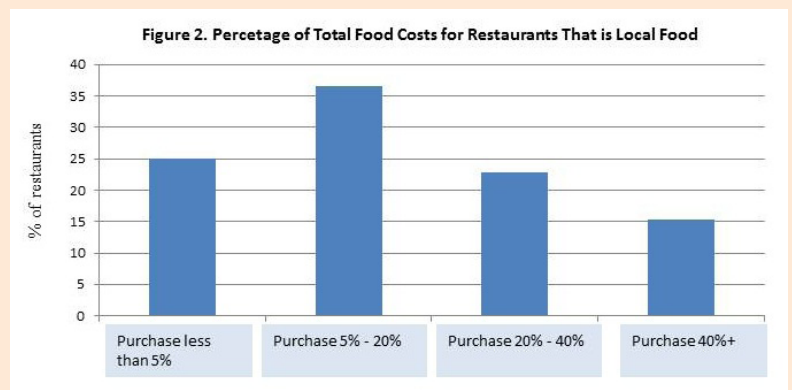
respondents thought that using local foods increased their sales. Obviously, in passing the Louisiana Purchase Local Incentive Program shortly after the survey was conducted, Louisiana lawmakers believed buying local had important benefits to the state.

Of relevance to the incentive provisions of the law, almost half of the respondents thought that local food represented 20% or more of their food costs (Figure 2). Over 20% thought that local food represented none of their food costs. The remainder thought that local food represented less than 20% of their food costs.

Respondents most commonly reported they purchased vegetables

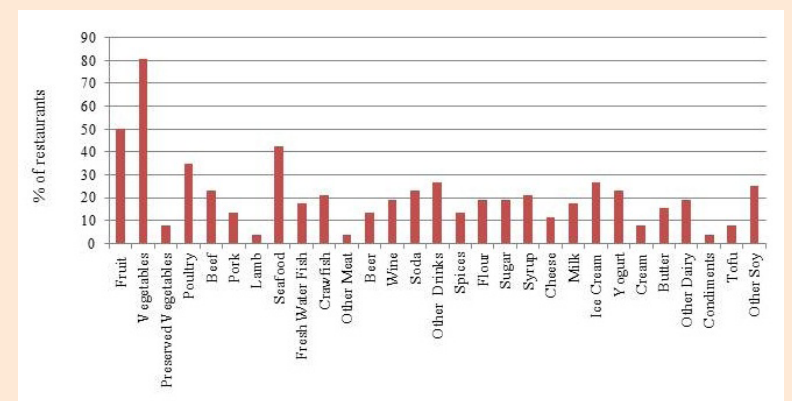
locally (80.8%) followed by fruit (50%), seafood (42.3%), poultry (34.6%), drinks and ice cream (26.9%) (Figure 3). At least 20% of respondents indicated they purchased soy, beef, soda, yogurt, crawfish, and syrup locally, but other items in the local food purchases list were purchased by less than 20% of the respondents. In 2011, none of the respondents were aware of any state initiatives to promote local food. Since the study was done before the Louisiana legislature passed the incentives bill for purchasing local, and knowledge dissemination and purchasing patterns take time to adjust to new incentives, one would expect local foods to now be a greater share of food costs.

Figure 2: Percentage of Restaurants' Food Costs that is for Local Food



Source: Liang and Dunn, 2012.

Figure 3: Types of Local Food Purchased by Restaurants



Source: Liang and Dunn, 2012.

Implications

While the majority of the agricultural policies were introduced in the Farm Bill, it would not be reasonable to consider Federal policies as the only guide shaping the future of local food. Federal policies certainly offer critical orientations to lead the movement. It is up to state and local governments and organizations to identify best practices to yield the highest benefits and returns for local communities, considering optimization and tradeoffs between limited resources and alternatives. The role of state and local policies is to coordinate interests and efforts that will (1) meet objectives established by Federal policies as well as serve needs of local stakeholders, (2) initiate entrepreneurial and innovative approaches that leads to problem-solving actions, (3) encourage and incentivize collaborations to exchange information, share responsibilities, and offer support and assistance that will directly improve the wellbeing of the communities, and (4) lead and support educational programs to share information, raise awareness, and provide training for service providers who will directly work with organizations and individuals in promoting local food.

Given all the attention in local/regional food systems, many challenges and important considerations remain in our economic and social environments that need to be addressed at the production, consumption, and distribution levels.

Production Challenges

1. Natural barriers, disasters, and constraints that influence growing seasons and supplies.
2. Quantity and quality considerations that relate to production costs, profit margins, and distribution options.

Considerations for Individual Consumers and Households

1. Most important factors influencing purchase decisions are availability, affordability, accessibility, and accountability.
2. In addition to income and food prices, other factors such as culture, tradition, religion, and family preferences often sway food choices with or without considering nutrition and health.

Institutional Challenges

1. Budget constraints, lack of financial incentives and public funding, and competing planning/development priorities often hinder institutional support needed to build local food systems.
2. Specific regulations in food safety, purchasing requirements, and insurance issues seem to be the most commonly identified challenges for small producers to work with local institutions directly.
3. Lack of long-term visions and planning, goal setting, and leadership/champions seem to jeopardize the development of sustainable programs or policies to enhance or improve future opportunities of local/regional food systems.

Finally, there needs to be more cooperation and coordination among local, state, and Federal agencies in designing, planning, and implementing local food initiative. Gaps in developing local food initiatives may present more barriers to producers, particularly small family farms, in seeking and developing innovative opportunities. Some states or regions obviously are more advanced in creating local food programs, while others are still trying to figure out what to do. Raising awareness and providing timely educational materials to share across agencies and geographical areas seem to be the most critical steps to

establish effective and efficient solutions in dealing with local food issues.

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