

Food Safety Policies and Implications for Local Food Systems

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JEL Classifications: I18, Q13, Q18

Keywords: Food Marketing, Food Safety, Food Safety Modernization Act, Local Food Systems, Risk Analysis

Local food systems have been on the rise during the past decade. Organizations known as “food hubs” actively manage the aggregation, distribution, and marketing of source-identified food products. Community supported agriculture (CSA) programs, in which a group of consumers commit to share the risks and benefits of food production with a grower, have become commonplace. Even prominent retailers have placed a greater emphasis on the marketing of “locally grown” food items. Public support for such systems has impacted both state and federal policies, including support for more farmers markets, farm-to-school (FTS) programs, and the development of the U.S. Department of Agriculture’s (USDA) broad-reaching “Know Your Farmer, Know Your Food” program. The growth of local food systems has not been confined to one region of the country, instead becoming a national trend.

Even with a growing national prominence, the relative niche status of local food systems has left them vulnerable to sweeping changes in the food industry as a whole. Recently enacted food safety policies such as the Food Safety Modernization Act (FSMA) and increased manufacturing and retail emphasis on the Global Food Safety Initiative (GFSI) compliance have left local food system participants unsure of the regulatory requirements for accessing various market channels and their liability exposure. Specifically, small producers participating in local food systems may be uncertain about the impact of new food safety regulatory frameworks on their cost structure, profitability, and market access (Martinez et al., 2010).

The 2011 FSMA represented the most extensive change in food safety regulations since the 1950s, but details for

most aspects of the act were—and still are—“to be determined.” In the two years since it was signed into law, several rules have been proposed and submitted to the public for comments (U.S. Department of Health and Human Services (HHS) and U.S. Food and Drug Administration (FDA), 2013c). As a result, the FSMA and its provisions have been greatly scrutinized and revised, including the definitions for small businesses and their exemptions from some of the more stringent aspects of the FSMA as proposed by the Tester-Hagan Amendment. The Tester-Hagan Amendment was developed to exempt small farms and food businesses from certain financially burdensome and report-intensive aspects of the FSMA on the presumption that short-chain traceability of local foods suppliers makes them safer—or at least have less risks of geographically distributed food-borne illness—than larger national and international food suppliers.

Small producers and food businesses are—for the moment, at least—defined as those that market more than 50% of their products directly to consumers, stores or restaurants, farmers markets, bake sales, public events, and fundraisers. Producers with less than \$500,000 in annual gross sales are also included in this category. Additional exemptions exist for those with less than \$25,000 in annual sales who sell to consumers, stores or restaurants in-state or within 275 miles from where the food was harvested or processed. The FDA estimated that approximately 76,000 farms fall into the small business category and about 34,000 more fall into the sales of \$25,000 or less category (HHS and FDA, 2013a), although the validity of these estimates is debatable.

Uncertainty and misconceptions about the proposed and final rulings on exemptions for small farms and food businesses are rampant, creating a range of concerns among small farms and food businesses about changes in food safety requirements and their ability to meet these requirements in a cost effective manner. As of the writing of this article, several aspects of the FSMA have not been finalized. For example, labeling approval and registration as a “food processing facility” may be necessary for small farms that engage in certain growing, harvesting, and packaging activities for commodities identified as high-risk foods. In addition to registration, some small farms/food businesses may have to submit hazard analysis and prevention control plans depending on the level of processing, packaging, or food holding activities they undertake.

Regardless of the exemptions, small farms/food businesses are still subject to lawsuits and inspection if their food items are contaminated and cause injury or harm to consumers.

Besides the FSMA, local food systems suppliers may also be subject to food safety and traceability requirements as they expand their marketing channels to include retail food outlets. Food processors, retailers, and foodservice entities have shown greater emphasis on the GFSI standards in recent years. The GFSI began in 2000 as an international food safety and traceability benchmarking effort by food industry leaders, but now promotes an internationally harmonized approach to food safety that emphasizes following one of a handful of food safety protocols. These internationally accepted protocols may be required for marketing products in certain retail chains, along with a checklist of other requirements and verifications. As examples of these other requirements, all suppliers to the Whole Foods chain must meet detailed standards that include acceptable and unacceptable ingredients;

storage and handling of products; and welfare standards for livestock for meat, poultry, eggs, and dairy products. Wal-Mart recently announced corporate-wide efforts to have fresh produce suppliers follow the Produce Traceability Initiative (PTI) protocol and institute a “100% money back” guarantee on freshness by 2014, with no mention of exemptions or exclusions for small farms or local produce.

Overall, the costs and uncertainty of regulatory compliance impact the ability of local food systems to develop and expand into different marketing channels (Martinez et al., 2010). For example, FDA estimates that the proposed rule for produce safety will cost an average of \$11,430 per covered farm, and range between \$88 and \$30,566 depending on farm size (FDA, 2013), and it is uncertain how these costs will affect profitability of farms and market access. Furthermore, the assumptions and data used by the FDA for these estimates may not be representative of the true costs. More reliable data is needed to estimate regional costs of regulatory compliance for various commodities.

The ability of local food systems to access retail marketing channels, participate in FTS programs, and market value-added products at farmers’ markets will depend on better understanding of local, state, and federal food regulations, as well as the ability of growers with small farms to comply with these regulations in a cost effective manner. Numerous consulting firms and programs provide assistance to food industry members related to regulatory understanding and compliance, but the costs of utilizing these service providers may be prohibitive for small farm members of local food systems.

Food Safety Research and Local Food Systems

A greater emphasis on research-based food safety measures may eventually have an impact on consumer

perceptions of local food systems. The FSMA was intended to promote science-based protocols for preventing food contamination with greater emphasis placed on traceability, as opposed to former protocols that focused more on responses to food safety crises. Early assessments of FSMA impacts on food safety and food industry economics have focused on industry-wide or industry-sector scales, but little research has been published on the food safety risks or economic impacts of the FSMA for smaller producers and processors.

Local food systems are in the unusual position of defending the safety of their food while simultaneously pursuing exemptions from the more stringent aspects of the FSMA. The lack of research to address the issues of food safety risks in local food systems may impact the ability to retain FSMA exemptions for small suppliers in the long-run.

Each potential marketing channel has its own source of compliance regulations and associated costs. These requirements may be buyer-driven and, in some cases, stricter than the FSMA. Thus, an examination of the relative costs of food safety and traceability across different marketing channels, even in the presence of the FSMA exemptions, may be insightful. For example, local producers participating in FTS programs may be required by the schools or by the state to document Good Agricultural Practices (GAP), Good Manufacturing Practices (GMP), food handling protocols such as refrigeration and packaging of fresh produce, and quality control measures taken by themselves or third-party distributors to remain active in the state FTS program.

Likewise, risks and risk coverage differ between marketing products through a local farmers market or local retail store and differ by state depending on regulatory requirements of state agricultural and health departments. Even with small business

exemptions from the FSMA, local producers are generally encouraged to follow GAP and Good Handling Practices (GHP) protocols. Palma et al. (2010) use the examples of GFSI and GlobalGAP to illustrate that the comparative costs of GAP and GHP standards vary by producer, suggesting research opportunities to address the compliance cost issues by commodity and farm size. The authors suggest more research to support science-based standards and regulations, with government agencies serving as facilitators of compliance among market chain participants.

The most challenging and least understood area of local food marketing involves the retail food-marketing channel. Supermarkets account for roughly 64% of consumers' food dollars, compared to 2.3% for specialty food stores and 5.9% for direct purchases from farmers, processors, and wholesalers (USDA-ERS, 2013). Thus, supermarkets have greater potential for volume-based marketing by local food system suppliers. But as a result of consumer demand for greater food safety and accountability as well as their own liability, supermarket chains place firm guidelines on supplier qualifications, food safety requirements, and suppliers' abilities to perform a product recall. Standard vendor agreements utilized by supermarket chains serve as supplier contracts and often include provisions that supersede the small business exemptions proposed for the FSMA. Supermarkets may even require GFSI compliance for small suppliers. The relative costs and benefits of local food marketing through the retail marketing chain remain largely unknown because of variations in requirements by regional or national supermarket chains.

Need for Food Safety Training Programs

A better understanding of liabilities and exposure associated with various

food marketing channels might help producers understand the nature of different marketing channels and identify the optimal marketing mix for their products. The FSMA and GFSI educational programs are prevalent for large-scale food processors, yet there is little evidence of programs tailored to small suppliers of local food systems. The complicated nature of proposed FSMA exemptions for small businesses and the food handling and processing activities that trigger overrides for those exemptions are vital issues to these small suppliers.

Retail chains clearly state their requirements for a minimum level of product liability insurance for suppliers, but local foods suppliers may not understand the need to maintain some level of liability coverage for marketing through other channels, such as farmers' markets, institutional foodservice, or even roadside stands and "pick-your-own" operations. Additionally, it is important to conduct consumer education programs to reduce contamination risks at home. No food safety system can be comprehensive without including the final consumer.

Collaborations between Extension specialists, local food suppliers, and retail marketers might help producers understand and comply with the requirements of supermarket vendor agreements. For example, Whole Foods demands that all suppliers—including small and organic suppliers—adhere to specific quality standards, product maintenance, receiving procedures, and insurance/recall requirements (Whole Foods Markets, Inc. (WFMI), 2013). Similarly, Walmart has developed a list of "Small & Developing Supplier Requirements" that also includes GFSI compliance for both low-risk and high-risk food products (Walmart, 2013). Targeted food safety training programs and cost determination assistance for small producers might improve the efficiency and

coordination of product distribution between suppliers and marketers.

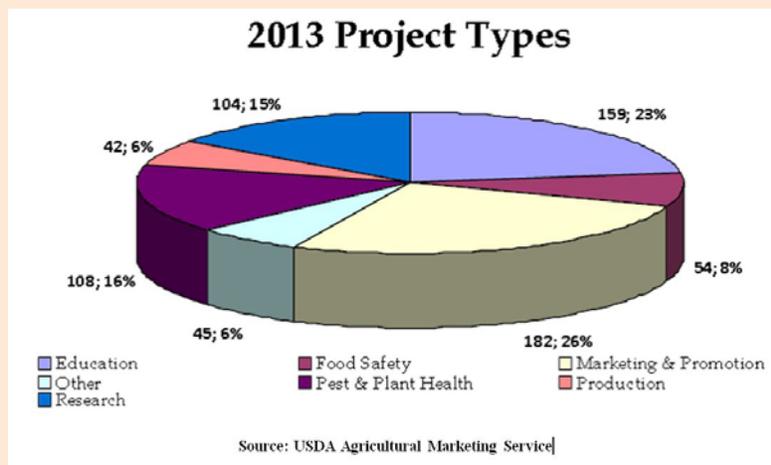
Leveraging Resources to Help Local Food Systems with Food Safety

Food safety research and training programs for local food systems require partnerships between local food entities and groups, land-grant universities, and state and federal agencies. The FDA is an obvious starting point for the FSMA training efforts, in collaboration with state health departments that may be contracted as third-party inspectors for the FDA. Stakeholders in the local food marketing chain, such as retail food stores, FTS program administrators, and farmers' market coordinators, may also be resource providers for various research and training efforts.

State departments of agriculture and health could be strong partners with land-grant universities in developing and delivering outreach programs related to risk assessment and regulatory compliance for farmers' markets and FTS programs. The Specialty Crop Block Grant program administered by USDA's Agricultural Marketing Service is a likely source of resources for research into the size, scale, and economic potential of local food marketing channels. This program has historically emphasized marketing, promotion, and education but has a growing emphasis on food safety projects. In 2008 this program funded 27 projects, but in 2013 the program has allocated 8% of its funds to 54 projects (Figure 1).

USDA's Food Safety Inspection Service would be an appropriate starting point for research and training efforts related to meat, poultry, dairy, and egg products not inspected by the FDA. Land-grant universities can also play a key role in developing risk management education related to food safety standards, GAP and GHP, cost of compliance and third party audits.

Figure 1: Specialty Crop Block Grant Fund Allocations for FY2013 (number of projects; percent of funds allocated).



Taking Actions to Help Local Food System Suppliers

The FSMA is the most sweeping change to food safety regulations in almost 70 years. The panorama for the full implementation of the law is still unclear. Questions still remain about the role small and medium-size farmers will play in satisfying local food demand while ensuring a safe food supply.

In order for local food systems to be economically viable and sustainable, producers must be able to at least offset the higher costs of meeting the newly evolving set of food safety regulations. This issue suggests new opportunities to conduct research and develop outreach programs related to food safety. Key areas include educational programs for compliance and audit procedures to ensure food safety standards are being met, emphasizing the different requirements for different marketing channels. Minimum research-based risk levels can be evaluated to ensure a safe food supply while attaining economic profitability and sustainability of local food systems.

For More Information

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