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Local Food Coming of Age: The Evolution of the Local Brand, Policy Initiatives and Role of Direct Markets in the Agriculture Portfolio

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JEL Classifications: Q13, Q18

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Sales of locally branded products have increased over the last 20 years. The U.S. Department of Agriculture's (USDA) 2015 local food marketing survey found that 167,009 U.S. farmers and ranchers sold \$8.7 billion of food directly to consumers, retailers, and other businesses and institutions (USDA NASS, 2016). In 2012, 7.8% of U.S. agricultural producers participated in direct or intermediated markets, a notable trend given that the agricultural sector is increasingly defined by its bimodal structure (Low et al., 2015). Since 85% of farms that participated in direct and intermediated markets in 2012 had gross cash farm income under \$75,000, federal and local funding for local foods may be indirectly serving as a market and policy initiative to support small farms, but do we know if that support is effective?

One trend worth noting for local foods is that growth in some subsectors appears to be maturing, particularly in direct-to-consumer outlets. Despite a 5.5% increase in the number of farms utilizing direct-to-consumer marketing outlets between 2007 and 2012 observed in the Census of Agriculture, there was no change in overall sales as intermediated markets became a more significant channel for those marketing local (Low et al., 2015). Although much of the initial interest in local foods originally revolved around farm-fresh produce, a growing array of local food products that require some level of manufacturing (meats, salsas, baked goods, and fruit-based beverages) is appearing alongside farm products and may represent opportunities for growth since consumers value more convenient or artisanal offerings. The growing visibility, complexity, and programming targeted at local foods motivate this issue's theme. In this issue, we explore the transformation of local food markets across several dimensions and consider how local food labels and framing, policy, and farm performance may all be influencing local food dynamics. In a subsequent, complementary issue, we will delve more into the consumer issues affecting this sector.

"Local food"—much like "value-added agriculture"—is an umbrella term for this sector, so only varying consumer perceptions and a broad USDA definition for local foods exists. In their piece, Holcomb et al. provide a classification system of terms as a resource for this sector of the food economy. Terms and meanings in these markets are both emerging and evolving. They posit that a better taxonomy of local foods will better equip consumers, producers, government entities, NGOs, and land-grant universities to frame, implement, and identify gaps in marketing promotions, programming, and policy needs related to local food systems.

Given the slowing growth in direct markets, intermediated markets are receiving more attention, but they may not seem as accessible to small- and mid-sized farms. In response, the U.S. Department of Agriculture invested over \$1 billion to support over 44,000 local food projects nationwide between 2009 and 2014, many of which focus on developing appropriately scaled infrastructure to support intermediated sales (Vilsack, 2016). In their article, Clark

and Jablonski assess how the creation of the USDA's "Know Your Farmer, Know Your Food" program in 2010 may have led to a maturation of federal policies and programs across the entire USDA system, where maturity is indicated by more dedicated staffing and continuous programming targeted at the sector. They offer a particularly interesting and useful approach to evaluating the maturation of legislative (Farm Bill and other federal policy) and administrative (staffing and programs) policies separately, which is interesting and timely given that the dynamics of those different governance strategies may differ greatly.

In the final article of this theme, Shideler et al. assess whether the growth in local markets and maturation of the policy environment has measurably impacted farmers and ranchers. They provide evidence that producers operating in local markets are smaller on average, perhaps as local markets allow farm viability at a smaller scale. No matter the scale, producers marketing locally may make relatively higher economic contributions through their own expenditures and offering jobs that pay competitive wages to members of their community. Since they also provide evidence that sales through intermediated markets could bolster profitability, it motivates future work to assess whether the policies and programs outlined by Clark and Jablonski supporting food supply chain initiatives could indeed lead to higher economic impacts than those simply targeting direct markets. This research motivates the need for further research on the economic impacts associated with types of direct markets and the various types of products being introduced (fresh produce, meat, dairy, value-added products).

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A Local Food System Glossary: A Rose by Any Other Name

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The local food movement defined much of the change in food trends in the early twenty-first century. While "local food" has entered the vernacular, the meaning of the term is still somewhat ambiguous. In 2013, a group of agribusiness and other food systems specialists with land-grant universities and non-governmental organizations (NGOs) attempted to identify opportunities for the land-grant system to assist both producers and consumers attempting to navigate the murky waters of local food systems (see the series of articles in *Choices*). While the group, organized by the U.S. Department of Agriculture's (USDA) Southern Risk Management Education Center (SRMEC), strove to clarify the issues related to producer involvement in local food systems, the contributors faced—as others have— many challenges in defining "local food."

The Importance of a Definition

In Shakespeare's *Romeo and Juliet*, Juliet dismisses the significance of a name by stating that "a rose by any other name would smell as sweet." However, as both Romeo and Juliet tragically learn, names do carry meaning for others. "A rose by any other name" does not hold for food marketing in the twenty-first century. Agribusiness literature is rife with studies showing that segments of consumers place premiums on various characteristics and attributes of the foods they purchase, creating numerous niche market opportunities (see Deselnicu et al., 2013, and McCluskey and Loureiro, 2000, for a review of the literature). Some food categories develop a standardized definition over time, with the most notable example being the USDA's efforts to create a definitive national standard for certified organic products. However, other terms remain vague or overly broad in their definition because many characteristics play a role in developing that definition. One common example is the term "value-added agriculture," which encompasses several categories of food and agricultural products (e.g., non-GMO grains, free-range poultry products, processing grapes into wine), each with its own set of qualifying characteristics, concepts, and unique practices (Lu and Dudensing, 2015).

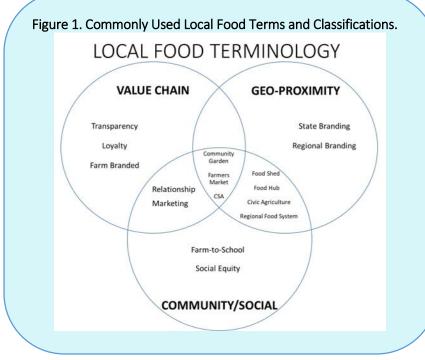
"Local food"—much like "value-added agriculture"—is an umbrella term for an array of niche food distribution strategies in the agribusiness context, each with a set of characteristics that holds value for a segment of consumers and producers. Unlike "certified organic," the USDA has not arrived at a uniform set of standards for local foods but rather embraces a rather broad definition—food produced within 400 miles or within a state's borders (Martinez et al., 20010. It could be argued that one common characteristic of all local food definitions is a short supply chain with few (or no) intermediaries and some sense of proximity between the producer and the end consumer.

"Local"—and who defines "local"—has become a heated debate, both politically and within agribusinesses, and has been a common theme in recent food/agribusiness articles and publications. It has been the subject of USDA publications (e.g., Martinez et al., 2010; Low et al., 2015), a question for discussion in agribusiness (e.g., Hand and Martinez, 2010) and food journals (e.g., Lang, Stanton, and Qu, 2014), and the impetus for numerous applied economics studies (e.g., Darby et al., 2008; Durham, King and Roheim, 2009). Popular press articles and trade publications have also addressed the issue of defining local food, with some attributing the modern redefinition of

local foods to food manufacturers (e.g., Judkis, 2009) or retailers (Burfield, 2013) rather than solely the result of voiced consumer expectations.

Ultimately, research has shown that the definition of local is subject to the locavores themselves, those consumers who highly value purchasing and consuming local foods. These consumers have spurred many restaurants to market their products as locally sourced in order to attract who want to consume locally grown foods. Lusk and Norwood (2011) go so far as to say that "locavores seek to export goods without importing."

Using "local food" as an over-arching term and drawing upon published and commonly applied terminology, we provide this rudimentary glossary of terms related to local food systems and an associated classification scheme. Terms are loosely grouped into categories, realizing that categories can overlap. As with the "value-added agriculture" schematic developed by Lu and Dudensing (2015), we try to highlight areas in which land-grant universities, government agencies, and natural alliances might play a role. Figure 1 provides a roadmap to the definitions covered in this article and the difficulties in assigning terms to just one category of terminology.



Value Chain Terms

Diamond et al. (2014) defined food value chains as business arrangements in which

"transparency, collaborative business planning and exchange of market intelligence and business know how among chain partners" result in "tangible benefits" to system participants. Not all food value chains place the same value on the same characteristics or business practices. In the consumers' eyes, local food products have real or perceived values that distinguish them from competing products available through other marketing channels. The following terms relate to the distinguished values associated with local food.

Relationship Marketing

Relationship marketing refers to a focus on longer-term customer attention, satisfaction, and retention to encourage repeat customers rather than a short-term goal such as quantity of sales transactions. Although relationship marketing is not new to food marketing, and thus not specific to local food, it is commonly recognized as a basic tenet underpinning local food systems. The USDA "Know Your Farmer, Know Your Food" campaign epitomizes this philosophy, emphasizing relational loyalty on both sides of the market transaction. Relationship marketing is often mentioned as a key success factor for local food producers supplying area restaurants, as well as the chefs themselves (e.g., Curtis et al., 2008; Ernst and Woods, 2011). The grassroots and social media campaigns undertaken by local food suppliers and farmers' markets are associated with relationship marketing.

Transparency

While "transparency" is not adequately defined by the USDA, the U.S. Food and Drug Administration (FDA), or local foods associations, the term generally implies an easily identified and available knowledge of all the details and components of the marketing chain. For local food consumers, the ability to easily see and understand the links in the short supply chain builds trust and serves as a sort of authenticity of the local food system. Transparency is also a critical component of food safety and traceability regulations and guidelines throughout the entire food industry. Some products are now Source Verified® (Where Food Comes From, 2017), which utilizes a third-party source verification and Quick Response (QR) Code technology to create transparency about the people and processes used to produce the food. (See Figure 2 for an example of the label.)

Farm Branded

A specific farm's brand carries with it a bundle of real and perceived characteristics signifying value (i.e., financial, social, and environmental) to the consumer. "Farm

Figure 2. Example of the Source Verified Label

Source: Where Food Comes From (2018).

branded" refers to efforts by the supplier to build customer loyalty for the farm's products, regardless of the marketing channel used by the consumer to obtain the farm's products or the consumer's proximity to the farm. Holcomb, Kenkel, and Brown (2012) found that 94.6% of suppliers to the 5,000-member Oklahoma Food Cooperative viewed the cooperative as an important marketing channel for their farm/business, yet they actively promoted their respective farm brands through farmers' markets, specialty stores, and even conventional supermarkets.

Geo-Proximity Terms

Geo-proximity terms are most commonly associated with "local," even though proximity is not consistent in the eyes of consumers. The concept of "food miles," the distance from the producer to the consumer, and the environmental footprint of food distribution, which includes other transportation efficiencies, have been hotly debated. Still, a food mile is unique to each and every food item, but the main issue of interest to consumers is the proximity of where food is produced to where they buy it. Yet even a measurable quantity like proximity has subjective meaning in local food systems. Most research has found that consumers develop their own perceptions of acceptable proximity associated with local food. For example, Durham, King, and Roheim (2009) surveyed consumers in the Pacific Northwest, Minnesota, and Rhode Island and found that almost equal percentages of consumers in Oregon and Minnesota viewed "local" as sourced from "less than 60 miles away" and "less than 175 miles away," respectively.

Even without a universally accepted distance to define local food, geographically specific conditions have been placed on many local food-branding programs. Some might be defined as "political local," meaning local is limited to a defined political or government entity or border, such as those defined by state departments of agriculture. Others are affiliated with natural boundaries or population centers. Martinez et al. (2010) reported that the 2008 Farm Bill defined the total distance a product could be transported and still be considered a "locally or regionally produced agricultural food product" to be less than 400 miles from its origin, or within the state in which it was produced.. Regardless, these geo-proximate terms are tied to boundaries that can be identified on a map.

State Branding

The Farmer-to-Consumer Direct Marketing Act of 1976 and subsequent block grant funding in the 1980s helped many states start or revamp state branding programs (Nganje, Hughner, and Lee, 2011). The goal of implementing these programs was and is to increase demand for products produced within a specified state, essentially a state-

defined version of the generic advertising commonly used for certain agricultural commodities (e.g., pork, beef, milk, etc.), but in which the state brand is the constant and the branded products vary. Theoretically, these programs increase in-state demand for products and generate a spillover effect in other states, promoting state-branded products beyond their borders. State branding programs tend to be applied to both fresh foods and further processed foods manufactured in the state, even if the processed foods contain ingredients not produced in the state.

Regional Branding

Regional branding can be smaller or larger in scope than state branding. A state as large as Texas or California can have multiple in-state regions to differentiate agricultural production (e.g., Rio Grande Valley citrus and Napa Valley vineyards), while the Northeastern United States has branding regions encompassing multiple states. Unlike state branding, which involve political orchestration and governmental funding, regional branding may naturally arise from a recognizable kinship or the demographic and economic association of states or counties. A region may be tied to metropolitan statistical areas (MSAs) that either individually overlap state boundaries or naturally create a region by their collective proximity to one another, without consideration of state boundaries. King, Hand, and Gomez (2015) identified the "Washington, D.C. local area" as encompassing the District of Columbia and 56 counties across five states (Maryland, Delaware, Pennsylvania, Virginia, and West Virginia).

Foodshed

Hedden (1929) provided the first recognized definition of a "foodshed," analogous to a watershed (i.e., the "dikes and dams guiding the flow of food from producer to consumer"), pointing out the vulnerability of the whole "shed" to any mishap at one point in the flow. More recent definitions of foodsheds have related the term to geographic regions encompassing food production to reasonably match the region's food consumption. Hahn (2013) defines a foodshed as a "geographical area between where food is produced and where the food is consumed." Peters et al. (2008) likened the term to a geographically defined area that can promote sufficient and sustainable food production to meet the needs of the area without necessarily meeting all seasonal demands (e.g., strawberries in winter) or all food demands (e.g., bananas in the non-tropic United States).

Food Hub

According to the USDA (Barham et al., 2012), a regional food hub is "a business or organization that actively manages the aggregation, distribution, and marketing of source-identified food products primarily from local and regional producers to strengthen their ability to satisfy wholesale, retail, and institutional demand." Though not included in the USDA definition, many food hubs also include social mission objectives in their business models (e.g., producer educational services, community food access). The scope of a food hub is generally defined geographically, hence the inclusion of the term in this section. The USDA oversees funding programs related to the development of food hubs, and several state agencies and NGOs such as Winrock International's Wallace Center have established programs through their National Good Food Network to assist in the planning and creation of local food hubs.

Community/Social Terms

Local food is often connotes community well-being, whether that well-being relates to economics, health, or some measure(s) of social justice. Such types of well-being are often difficult to accurately measure due to the challenges of identifying opportunity costs for producers and the impacts of local food spending on overall consumer expenditures (e.g., Hughes et al., 2008). Toler et al. (2009) found that at least a portion of price premiums paid by farmers' market shoppers were related to "fairness" and "community" perceptions as opposed to solely on product characteristics such as freshness, food safety, or "food miles." Farmers' markets, community supported agriculture, and food hubs are commonly associated with local food, but other proponents advocate for more community-driven agriculture that considers the well-being a specific place.

Civic Agriculture

"Civic agriculture" is a term originally coined by rural sociologist Dr. Thomas Lyson, who later devoted a book to the concept (Lyson, 2004). The term represents the trend toward locally based agriculture and food production as a contrast to the increasingly globalized nature of food production, but Lyson's definition is more place-based and closely ties local food to a community's social and economic development. The term is generally applied to face-to-face interactions between farmers and consumers and includes most forms of community-based food systems, including farmers' markets, community supported agriculture (CSA), and farm-to-school efforts. The USDA, state departments of agriculture and health, and numerous NGOs have adopted concepts of civic agriculture.

Community Supported Agriculture

Community supported agriculture (CSA) is the most popular form of local food system, with local consumers and a local farmer reaching an agreement, generally on a subscription basis, on the production and division of food items produced on part or all of the farm. Consumers (the "community") pledge financial and/or labor support to a farm business so that the farming operation becomes, either legally or idealistically, the community's farm. The consumers and the producer share the risks and benefits of the farm operation. In the traditional model, consumers receive weekly shares of the farm's output for their pledged financial support to the operation. Typically, CSA members, or "share-holders" of the farm operation, reach an agreement with the landowner (e.g., for the acres of production, the crops and quantities to be provided per share) prior to pledging financial and/or labor support. In return, they receive shares of or a regular subscription to the farm's output (i.e., vegetables, fruits, eggs, dairy, meats, etc.) throughout the growing season and the satisfaction of participating directly in the production of their food.

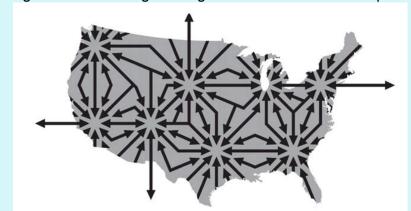
Community Gardens

According to Lawson (2005), the term "community garden" dates back to World War I and "tends to be associated with one particular manifestation—the neighborhood garden in which individuals have their own plots yet share in the garden's overall management." The other type of community garden is one in which participating community members agree upon the crops to be grown on the land, share in the costs and labor of producing the crops, and agree upon a division of the crops. However, the ways in which community gardens are operated and organized, and even the ownership of the land, can vary greatly. In some cases, individual gardeners grow for their own consumption in their allotted space; in other cases, all members collectively maintain the whole garden and harvested crops are divided into shares among participating members, while in other cases a portion of the garden's output may be designated for charitable contribution to members of the community deemed most needy. School gardens, in which students provide the labor to produce crops, are another type of community garden.

Regional Food System

Clancy and Ruhf (2010) define a regional food system as one in which "as much food as possible to meet the population's food needs is produced, processed, distributed, and purchased at multiple levels and scales within the region" (see Figure 3 for an example of regional food system flows). Rather than emphasize the geographic dimensions of a region, the authors tie regional food systems to social equity, explaining that an idealized regional model would also result in "maximum resilience, minimum importation, and significant economic and social return to all stakeholders in the region."

Figure 3. National Integrated Regional Foodshed Model: Concept



Source: Urban Design Lab, Earth Institute at Columbia University (n.d.).

Social Equity

"Social equity" may be the most complex and value-driven term associated with local food, primarily due to the subjective nature of "equitable," "fair," or "just" and the tendency to apply the term to societal morality and structural injustices rather than location-specific definitions. One of the best definitions of social equity as it relates to local food comes from Fehr and Schmidt (1999), who—rather than defining "equity"—focused their analysis on definitions of "inequity." The authors proposed that people are averse to two forms of inequity: advantageous inequity ("I have more money than you") and disadvantageous inequity ("You have more money than me"). Using these definitions, "social equity" is more or less achieved when members of a community have collectively minimized their perceived inequity—both in the process of achieving equity and in the actual outcome of equity.

Summary

While not exhaustive, this glossary addresses the varying nature of the terms, the quantitative-versus-qualitative concepts affiliated with discussions about local food systems, and the roles played by various stakeholders and governmental entities in the definition and application of these terms. As Figure 1 shows, local food terms are difficult to assign to just one category of terminology. Time, politics, consumer tastes, values, perceptions, and preferences have played and will continue to play a role in the meanings of these terms.

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Federal Policy, Administration, and Local Food Coming of Age

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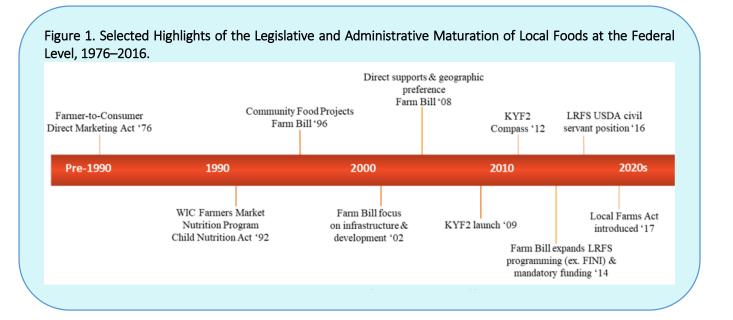
Hardesty's 2010 *Choices* article describes the mainstreaming of local and regional food systems (LRFS) at the federal level. She highlights the passage of the 2008 Farm Bill, which included policies and programs "designed specifically to increase the supply of and demand for local food" (p. 1), and the creation of the USDA's 2009 "Know Your Farmer, Know Your Food" (KYF2) administrative initiative. In 2018, and under a new administration, we investigate the evidence of the maturation of federal policies (and the administration of those programs) aimed at supporting LRFS. To do this, we look at evidence of both legislative maturation, focusing on changes in federal policy (mainly via the Farm Bill), and administrative maturation, focusing on changes in staffing, programming, and the way in which the U.S. Department of Agriculture (USDA) carries out its legislative mandates (in other words, how the USDA does business).

We start with a brief history of demand for LRFS policies from the U.S. food movement broadly and the growing policy response from Congress. Turning to the administration of LRFS policies, we then discuss the KYF2 initiative and its impacts as reported by the Obama administration. Subsequently, we discuss documents released following a Freedom of Information Act request pertaining to KYF2 as well as a survey of members of the KYF2 task force. Finally, we ask where KYF2 stands today within the federal administration and what this means for the future of LRFS within the USDA.

Evidence of Legislative Maturation: The Farm Bill

In the 1970s, agrifood organizations began successfully integrating their objectives into federal policy (Hunt, 2015). In general, the agrifood movement is concerned about reversing the growing distance (physically and relationally) between producers and consumers, reducing concentration and consolidation in the middle of the supply chain, increasing farmer incomes, and reducing community food insecurity and the environmental degradation that have resulted from the current global food system (Clark, Sharp, and Dugan, 2015). These organizations thought that these concerns could, in part, be addressed by developing and supporting LRFS (Constance, Renard, and Rivera-Ferre, 2014). Here, our focus is on the Farm Bill. Other legislation also addresses LRFS (for example, the USDA National Farm to School Program was formally created by the Healthy, Hunger-Free Kids Act), but the Farm Bill is arguably the most important for LRFS development.

Hunt (2015) traces the movement's interests at the federal level back to the development of local producer markets after the passage of the Farmer-to-Consumer Direct Marketing Act of 1976 (Figure 1). Then, in the late 1980s, interests in linking low-income, low-access consumers to local products made their way into the Women Infants and Children program and the Senior Farmers Market Nutrition Program (SFMNP). The 1996 Farm Bill included the Community Food Projects (CFP) Competitive Grants Program, further reinforcing the connection between local production and consumption while specifically focusing on building systems at the community level. The grant program served as an incubator for LRFS innovation (Maretzki and Tuckermanty, 2007). The 2002 Farm Bill reauthorized the CFP and created a new focus on infrastructure improvement and development, bolstering the possibilities for LRFS (Hunt, 2015).

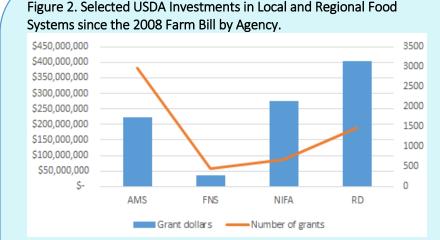


The 2008 Farm Bill largely continued and expanded the LRFS policies of the 2002 Farm Bill (Martinez, 2016). Direct support for LRFS was provided through several existing programs (Johnson, Aussenberg, and Cowan 2012), including, for example, the Business and Industry loan and loan guarantee program, an existing USDA Rural Development program, which specified that 5% of funding shall be in support of local and regional food production. In addition, language in existing child nutrition programs was amended to require the USDA to allow schools to use "geographic preference" when purchasing food.

Between the 2008 and 2014 Farm Bills, local food sales grew a purported 27%, to an estimated \$6.1 billion (Johnson, 2016). The majority of these sales were attributed to intermediated marketing channels (e.g., sales to restaurants, institutions, retailers) (Low and Vogel 2011). Accordingly, the 2014 Farm Bill continued to support and expand LRFS policy and programming, with a noted increase in funding to support the development and expansion of intermediated markets (Martinez, 2016). This Farm Bill included new programs, such as Food Insecurity

Nutrition Incentives (SNAP Incentives), and increased mandatory funding for such programs as the Farmers Market and Local Food Promotion Program (National Sustainable Agriculture Coalition, 2014). Although permanent funding increased for LRFS programs in aggregate, some programs, such as provisions for Farm to School, did not receive the support advocates had wanted (National Sustainable Agriculture Coalition, 2014).

Because of this Farm Bill activity, the USDA has supported a diverse array of LRFS investments and programs. Figure 2 illustrates investments by agency, dollar, and number since the 2008 Farm Bill. These include the 63 federal grant, loan, and technical assistance programs, of which LRFS are a part, described further in *Building Sustainable Farms, Ranches and Communities* (Krome, Reistad, and NSAC Policy Staff, 2014).



Notes: AMS = Agricultural Marketing Service; FNS = Food and Nutrition Service; NIFA = National Institute of Food and Agriculture; RD = Rural Development)

Part of the maturation of LRFS in federal policy, and particularly the Farm Bill, is the move from discretionary funding to mandatory funding. For example, the government doubled CFP funding in 2002, but it was still discretionary. As of the 2014 Farm Bill, this program receives mandatory funding. Overall, increases in mandatory funding for LRFS and healthy food access, organic production, and rural development under the 2014 Farm Bill totaled \$501.1 million over 5 years, a 50% increase over the previous Farm Bill (National Sustainable Agriculture Coalition, 2014). While funding for LRFS has increased since the initial investment of \$1.5 million over 2 years through the Farmer-to-Consumer Direct Marketing Act, it is good to keep in mind that the overall expected 5-year outlay from the 2014 Farm Bill is \$489 billion (USDA, 2018).

Evidence of Administrative Maturation: Know Your Farmer, Know Your Food

While Congress legislates LRFS policy, the USDA administrates its implementation via rule-making and, more broadly, management strategies. A strong piece of evidence of the maturation of LRFS within the federal administration is its integration of LRFS into USDA priorities, including enhancing the rural economy, the environment, food access, and nutrition and strengthening agricultural producers and markets (Hunt, 2015; Martinez, 2016). For example, under the Obama administration, development and support of LRFS was one pillar of the USDA's strategic plan (USDA, 2012). Further, in 2009, the USDA launched its LRFS management and communications strategy, known as the "Know Your Farmer, Know Your Food" (KYF2) Initiative (Figure 1). In Secretary Vilsack's announcement of this effort (2009), he stated that "Know Your Farmer, Know Your Food means using existing programs to support the development of local and regional food systems." Although KYF2 faced some opposition in Congress, which is likely why KYF2 was launched using existing programs, it remained a focus of the USDA through the Obama administration (Johnson, 2016).

To deepen our understanding of how KYF2 administratively integrated LRFS activities within existing USDA programs, we used internal documents obtained from a Freedom of Information Act request and a survey of past and current USDA employees who had been part of the KYF2 task force. From these two sources of information, we learned that the primary public-facing document of KYF2 was its Compass (USDA, 2012). The Compass, which provides guidance on the internal and external roles of KYF2, states that KYF2 is not a new program and has no staff, no office, and no dedicated funding: "Rather the initiative seeks to leverage existing USDA resources, promote greater collaboration between the Department's 17 agencies and multiple staff offices, and identify ways to improve the administration and implementation of programs" (p. 17). At least one employee from each agency and many staff offices joined the KYF2 task force. The task force met regularly so that its members could share information, educate each other, and identify program synergies.

Further review of obtained documents provides additional information on the task force's intent. Specifically, the external goals focused on i) elevating a conversation already happening around LRFS, ii) connecting resources to nontraditional producers, and iii) facilitating the building of LRFS. Internally, the focus was on i) legitimizing LRFS work within USDA agencies, ii) supporting work on new topics and knowledge exchanges, iii) changing the allocation of public dollars and the ways in which USDA staff do daily business and, iv) eliciting new collaboration, particularly across agencies.

KYF2's Stated Accomplishments

In April 2016, USDA Secretary Tom Vilsack delineated the department's accomplishments resulting from the KYF2 Task Force (Vilsack, 2016). These accomplishments included:

- expanding existing programs and new strategies to build USDA's capacity to serve local food stakeholders.
- creating a one-stop resource and information platform showcasing USDA programs that support LRFS (the KYF2 website, which featured the Compass). This includes transparent information about location and the financial support level of federally supported local food projects.
- launching and maintaining several local food directories (farmers' markets, CSAs, food hubs, on-farm stores).

- coordinating support that changed the way that USDA invests its resources, including making it easier for small and beginning producers to access loan programs and to meet regulatory requirements for intermediated markets, as well as support for local food infrastructure investments (including for food hubs and innovative retail).
- enhancing data collection and availability, including the new USDA-NASS local food marketing survey.
- increasing access to local food among low-income households, in part through increasing the number of SNAP-authorized vendors (including farmers' markets and farm stands).

Connecting Agencies, Changing Administration

The above information is based on KYF2's self-reported outputs, are is the only compiled and publicly available data on the accomplishments and include little to no external validation. Accordingly, using the documents obtained from the Freedom of Information Act, we investigated evidence of KYF2's effectiveness in supporting the administrative maturation of LRFS.

From these documents, we see that members across agencies met every 2 weeks and that each agency appointed someone to the task force. Initially, the task force discussed how to remove barriers to collaboration and how to integrate LRFS within existing programming and began cross-agency workgroups on specific topics (e.g., research, regional food hubs, local meat and poultry), in addition to focusing on internal capacity building (e.g., brown bag talks). Later, the task force did outreach to field offices, coordinated around emerging topics (e.g., urban agriculture), tracked new initiatives with overlapping goals, and developed new resources for the public on LRFS-related issues. These meetings were meant to reorganize thinking and action around LRFS within the department and align and coordinate resources to improve the management and implementation of research and programming. Ultimately, a central mechanism to achieve these objectives got task force members coordinating and collaborating to produce cultural change within the USDA.

However, meetings themselves do not indicate the extent to which KYF2 supported a maturation of LRFS within the department. From a public management perspective, one way of assessing whether LRFS has matured is by examining whether KYF2 changed both the process and the outcome of operational systems within the USDA (Sandfort and Moulton, 2015). For example, did the daily work of its members become oriented toward LRFS, were members rewarded for this work, and did operations alter department outputs, such as integrating LRFS into funding priorities? Important to the central mechanism at play, did KYF2 result in task force members coordinating and collaborating on LRFS initiatives outside of task force meetings, thereby creating a systemic operation change?

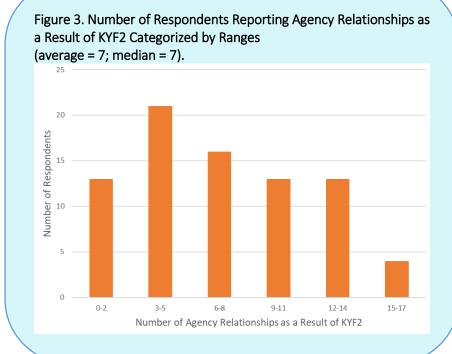
To answer these questions, we developed a comprehensive list of current and past task force members using the obtained records and then asked members to participate in an online survey. We identified 265 task force members. Of those 265, we could not find updated contact information for 27 individuals. A total of 108 people responded, resulting in a 45.4% response rate. Of those who responded, 54% had started working at the USDA before the inception of KYF2 in 2009. Respondents represented 21 agencies, mission areas, and other USDA offices.

Focusing on respondents working in agencies, survey results provide evidence that KYF2 connected people and agencies and changed processes. An overwhelming 97.5% of respondents reported cooperating (exchanging information, attending meetings together, and offering resources—financial and nonfinancial—to partners) or coordinating (includes cooperative activities in addition to intentional efforts to enhance each other's capacity to address individual priorities) outside of KYF2 meetings across agencies and mission areas (PARTNER, 2012). KYF2 resulted in new relationships with staff outside of respondents' home agencies. The average and median number of agencies with which members had relationships as a result of KYF2 was 7 (minimum = 0; maximum = 17) (Figure 3). Overall, 72% of respondents believed that leadership in their agencies prioritized or prioritizes LRFS after KYF2. Just over 39% of respondents said that KYF2 was integrated into specific priorities, requests for proposals (RFPs), requests for applications (RFAs), or notices of funding that were not a direct result of legislation. Furthermore, 42% of respondents said that LRFS activities became part of their job descriptions and/or formal plans of work following KYF2, and 66% of respondents were rewarded for their involvement with KYF2 in their performance reviews/plans.

[We acknowledge that respondents may have self-selected to participate in the survey based on their interests in LRFS, which may bias the results.]

Where KYF2 Stands Today

In May 2016, before the end of the Obama administration, the USDA created a new, permanent civil servant position housed under the Agricultural Marketing Service to serve as a Local and Regional Food Systems Policy Advisor. The job description reads that the selected individualplays a critical role in advising Agency, Mission Area, and Departmental officials on key issues and decision making processes on a variety of complex, important, and sometimes controversial activities concerning Departmental and interagency LRFS policies and relevant programs. Primary responsibility includes coordination and leadership of the USDA Know Your Farmer, Know Your Food Initiative. (USAJOBS, 2016)



Although agency staff are no longer "assigned" to KYF2 under the new administration, the task force continues to meet biweekly and has transitioned to the voluntary Local and Regional Food Working Group. This group continues its focus on coordinating the USDA's LRFS activities, creating opportunities for collaboration, and more generally cross-pollinating ideas. In 2018, the monthly meetings focus on four primary areas: research reporting, industry innovations, connections to field staff, and supporting programs and networks (such as to the Niche Meat Processor Assistance Network or a new USDA program that provides awareness and tools for USDA staff to promote and use shared resources) (Kovacs, 2018).

Though one could view the fact that participation in LRFS meetings is no longer mandatory as a sign that that LRFS have not been institutionalized, we believe that the persistence of these meetings likely points to LRFS' institutionalization across the USDA; agency staff now voluntarily choose to participate and are granted the ability to do so by their supervisors. Additionally, members of the Local and Regional Food Working Group self-organized an Interagency Grants Working Group as an opportunity for "grants administrators from across USDA [to] come together to improve efficiency, customer service, and ability to demonstrate impacts of their grant programs" (Kovacs, 2018). The group meets at least monthly to share strategies, systems, policies, and practices. Although the grants working group started as an outgrowth of the Local and Regional Food Working Group, it has subsequently expanded as other grants administrators throughout USDA have expressed interest in joining.

In many ways, the Local and Regional Food Working Group and the Interagency Grants Working Group provide evidence of fundamental cultural shifts at the USDA, tying in with the new administration's "One USDA" and "customer service" priorities such as the new 5



farmers.gov website (see Figure 4), which provides a one-stop resource for services provided by the Farm Service Agency, the Natural Resources Conservation Service, and the Risk Management Agency (USDA, n.d.).

What Does This Mean Moving Forward?

It is difficult to know the extent to which legislative maturation will continue, and the timing of this article is somewhat awkward given ongoing debate about the next Farm Bill. However, there are hints of continued legislative maturation of LRFS. In October 2017, the Local Food and Regional Market Supply (FARMS) Act was introduced in both the Senate (D-Brown) (https://www.brown.senate.gov/newsroom/press/release/brown-introduces-legislation-to-help-farmers-grow-their-businesses-boost-ohios-rural-economy) and in the House (D-Pingree) (https://pingree.house.gov/media-center/press-releases/congresswoman-pingree-leads-bipartisan-local-farms-act). Though similar acts have been introduced previously, the Local FARMS Act is unique for two reasons. First, it represents the first time that both the Senate and House versions of the marker bills for LRFS have had bipartisan support. Second, it includes mandatory baseline funding at \$80 million per year for programs that enable farmers to access to new LRFS markets, increase access for LRFS consumers, and develop the infrastructure that connects the two via a suite of efforts (including Value Added Producer Grants, the Farmers Market Promotion Program, and the Local Food Promotion Program).

All indications are that demand for LRFS will continue to increase. Indeed, industry analysts have estimated that local food sales will increase to \$20 billion in 2019, outpacing the growth of total food and beverage sales (Hesterman and Horan, 2017). Therefore, regardless of where LRFS comes out during this Farm Bill debate, public choice theory suggests that we can expect policy makers to continue to respond to their constituents and LRFS stakeholder advocacy groups by pushing legislation that reduces market barriers and expands access for both farmers and consumers, building on past policy development.

Given our findings of changes in culture and management of LRFS within the USDA, the agency is likely better positioned to implement any LRFS legislative policies than it was a decade ago. The enhanced ability to coordinate across agencies likely improves the USDA staff's ability to handle LRFS programs, which tend to straddle agency lines. In addition, the existence of a point person in the Agricultural Marketing Service tasked with interagency knowledge and information concerning LRFS policies, programming, and initiatives means that Congress can more efficiently communicate with the USDA regarding cross-agency LRFS-related issues as they work to pass the next Farm Bill. Though an interagency group continues to meet to discuss LRFS-related issues, the lack of formal institutional support may lead to a deterioration of this cohesion moving forward, as well as the discontinuation of integrating LRFS into job descriptions and performance evaluations.

In this article, we have pointed to the increased consumer demand for LRFS, including projections of continued increases in sales through these differentiated markets. Continued growth in consumers is likely to drive policy development and the eventual administrative and management response. What remains unanswered is the impact that LRFS policies and administration have on the supply of and demand for LRFS. In other words, how effective has the maturation of LRFS in the federal government been in supporting these markets? This is an area ripe for future research.

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Putting Local Food Dollars to Work: The Economic Benefits of Local Food Dollars to Workers, Farms and Communities

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JEL Classifications: O13, Q12

Keywords: Local foods, economic impacts, farm finance

Despite claims of economic impact by local and regional food system promotors, sufficient data have only recently become available to directly assess the contributions of these food systems to various community-based goals. Consumer research on local food shoppers has shown that the perceived benefits from buying local are aligned with quality, expectations of fair returns to farmers, preserved farmland, fair treatment of workers, and general economic benefits to communities (Onozaka, Nurse, and Thilmany McFadden, 2010). This would suggest that consumers purchasing locally branded food differentiate it from conventionally produced foods due to the additional attributes associated with the locally produced items and therefore are willing to pay a higher price for the items. Arguments that suggest local food systems are inefficient due to comparative advantages (Lusk and Norwood, 2011) assume perfect substitution between local and conventional foods.

Numerous economic impact analyses have been performed on various dimensions of local and regional food systems (see Box 1). These analyses provide welcome insight into potential job creation and other economic benefits from small-scale, locally, or regionally branded food production, but they provide little detail about how farmers' decisions and management practices affect farm and ranch profitability. We summarize recent work focused on the workforce and farm financial performance implications of local food initiatives, providing insight into why positive economic impacts might arise from a particular producer operating in this niche.

Box 1. Examples of Studies Exploring the Economic Impacts of Local Food

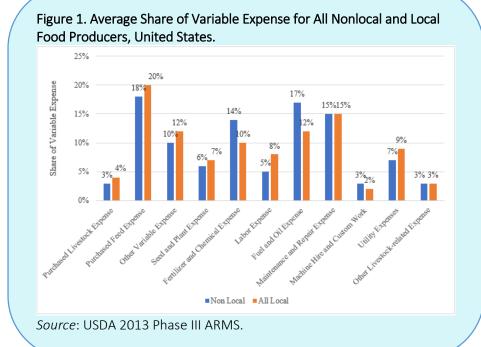
- Swenson (2011) examined the impact of converting existing commodity crop land into specialty crop
 production to meet estimated demand in the Midwest.
- Hughes et al. (2008) examined the economic impact of farmers' markets in West Virginia when accounting for the potential substitution effect between farmers' markets and other existing food stores.
- Watson et al. (2017) developed improved methods to explore the Idaho local food system.
- See the USDA Ag Marketing Service Economics of Local Foods Toolkit (<u>www.localfoodeconomics.com</u>) for a compilation of studies.

Producers' marketing choices and management practices should be key elements that inform policies and programs supporting local and regional food system initiatives. For example, local decision makers may better utilize public funds by understanding management decisions of successful producers in local markets. Accordingly, we use results from an analysis of U.S. Department of Agriculture's (USDA) Agricultural Resource Management Survey (ARMS) 2013 data to examine patterns among the roughly one thousand usable responses from participants selling in direct-to-consumer (DTC) and/or intermediated markets. In this paper, DTC sales are sales of products by the farmer to the final consumers such as farmers' market sales, CSAs, or farm stands. Intermediated sales are those sold directly to retail establishments (e.g., restaurants, grocery stores), institutions (e.g., schools, hospitals), or distributors (e.g., food hubs). The ARMS data have limitations given the relatively small sample size (there are nearly 18,000 total responses annually in the ARMS survey; while the sample frame is meant to be nationally representative across all farms, it is not nationally representative across farms producing for local channels). However, ARMS data do allow us to examine local marketing channels across regions and with a much larger sample size than previously available. This is a significant advantage over much of the previous research, which has relied upon geographically and/or observationally limited samples. The results discussed below provide critical, generalized insights into producers operating in the local and regional food niche.

Overall, the articles summarized here show that local food producers spend proportionately more on labor, other variable expenses (including hand tools, supplies, and farm shop power equipment; other unrecorded expenses; and vehicle registration fees) and utilities than do commodity producers; moreover, as scale of production increases, labor's share of variable costs also increases. An implication of these findings is that local food production may create jobs as well as stimulate proportionately larger spillover impacts on the local economy than nonlocal production. The results show that profitable local food producers exist across all sales classes and market channels, signaling there are viable business models for a variety of farms and ranches to pursue within this niche. Finally, analysis focusing on the most profitable producers sheds light on what types of business models enable producers to flourish in this market segment and provide guidance for future programming and policies.

Are Local and Regional Farmers Managing Differently?

To explore patterns of viability and profitability among local food producers, we first divided 2013 USDA ARMS data into nonlocal and local subsamples to compare the average expenditure patterns of each (Figure 1; Thilmany et al., 2018). Not surprisingly, local producers were, on average, different from nonlocal producers. Unfortunately, the small sample size of local food producers in ARMS limited our ability to further divide the local sample by commodity. Additionally, ARMS does not collect data by marketing function (e.g., time and materials used for packaging or labeling, time spent retailing at a farm stand or farmers' market), which might explain differences in expenditures between local and nonlocal producers.



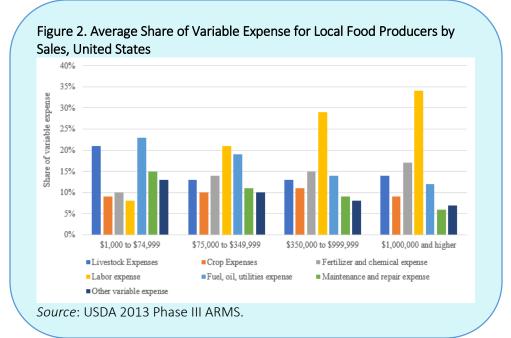
Average values were statistically

different across several expense categories: Fertilizer and chemical and fuel and oil expenses were found to be lower, on average, among local producers. Higher average expenses for local food producers include labor, utilities, and other variable expense. Since local producers tend to be less mechanized and use sustainable agricultural practices (like organic fertilization and pest management), it is not surprising that nonlocal producers

spent more on average for fertilizer and chemicals and fuel than local producers. However, it was interesting to discover that local producers spend proportionately more on some categories, specifically labor, since labor payrolls may have larger economic implications for the community.

The Role of Labor in Local Food Markets

Perhaps most surprising, particularly when compared to conventional agricultural systems, labor expenditures as a share of total variable costs increase as sales increase (shares of variables costs, rather than levels of labor costs, were used to control for scale effects). As Figure 2 illustrates (Thilmany et al., 2018), labor expenses increase their average share of total variable costs as sales grow, going from less than 10% of variable costs in the <\$75,000 sales category to nearly 35% of variable costs among those with >\$1,000,000 in sales.



Of note, labor expenses in

ARMS capture hired labor and do not include unpaid labor from family members or owners (which is typical for many small enterprises). This likely explains, at least in part, why labor costs rise with local food producer sales. This appears to be consistent with other research that shows increased utilization of labor in nonproduction activities among local producers (King et al., 2010) and higher wages paid by local producers (suggesting that the labor provided is either more specialized or more skilled than conventional agricultural producers; Jablonski, Bauman and Thilmany McFadden, unpublished manuscript, 2018).

In addition to the higher percentage of variable costs on labor, analysis of USDA ARMS data also shows relatively high average wage rates for employees of operations that sell through local markets. This is likely due to the integration of marketing and distribution functions requiring higher skilled workers. Further, though average wages are slightly higher in metro areas (\$26 vs. \$23 and \$21 in metro-adjacent and nonmetro areas, respectively; Jablonski et al., unpublished manuscript, 2018), there are no significant differences between metro (urban) and nonmetro (rural) farm locations. For comparison, Marré (2017) showed that rural median earnings ranged from 75% to 93% of urban median earnings, depending on education level, while Cromartie (2017) found that rural median household income was 25% lower, on average, than urban median household income. Accordingly, the lack of significant differences in wage rates in urban and rural local food farms is unexpected.

How Profitable Are Local Food Markets?

It is important to understand whether these differing business models and the choice to pay higher wages to employees allow local producers to be financially viable. Profitability is a key metric for evaluating financial performance; because of the diverse number and type of producers who sell to local food markets, we divided farms in each sales category farms into quartiles using return on assets (ROA), calculated as net income divided by the value of assets the farm owns, so that higher percentages indicate that a producer is more effective at utilizing his or her assets to create profits. Again, the small sample size only allows us to categorize data by market channel and sales categories; for many commodities, there was not enough data to make useful comparisons.

Table 1 reports the mean value of ROA for each quartile, sales class, and marketing channel. One can see that scale does matter, since ROA generally increases as sales increase. However, every market channel and sales category has at least one profitable quartile, yielding a minimum of 4% to a maximum of 39% ROA. The fact that all of the farms in the 3rd quartile essentially reported 0 average profits indicates that these farms were roughly breaking even. Thus, 50% of farms and ranches selling through local food markets, regardless of scale, appear to break even. Further, strong ROA in the highest performing quartile (quartile 4) across all sales classes and market channels is particularly notable in an industry characterized by low profit margins; average rates of return for conventional agriculture between 1960 and 2001 were estimated to range from -0.76% to 10.19% (Erickson, Moss, and Mishra, 2004).

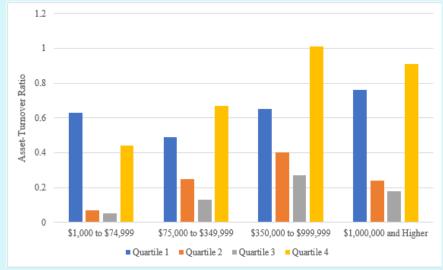
Table 1. Return on Assets, by Marketing Outlets and by Gross Farm Income, Ranked Lowest (Quartile 1) to Highest (Quartile 4)

Gross Sales/		Direct-to-Consumer Only	Intermediated Only	Both Direct and Intermediated
Scale	Quartile	(N = 664)	(N = 136)	(N = 213)
\$1,000- \$74,999 (N = 534)	1	-137%	-80%	-263%
	2	-7%	-7%	-7%
	3	-1%	-1%	-2%
	4	20%	4%	7%
\$75,000- \$349,999 (N = 213)	1	-24%	-20%	-33%
	2	-7%	-9%	-7%
	3	-1%	-1%	-1%
	4	8%	26%	39%
\$350,000 and higher (N = 211)	1	-23%	-31%	n/a
	2	-6%	n/a	-6%
	3	0%	-2%	-1%
	4	19%	31%	34%

Source: USDA 2013 Phase III ARMS.

While ROA is a useful measure of profitability, asset turnover and business debt-to-asset ratios are also useful in examining patterns among managerial choices and their impacts on business performance. Asset-turnover ratios, measured as total sales divided by total value of assets, measure a farmer's ability to convert his or her owned assets into sales (Figure 3). These values are sensitive to the application of one or more business strategies, such as leasing rather than owning assets (e.g., land and equipment rentals), strong customer loyalty and markets that allow for higher pricing, or adopting intensely managed production models (e.g., succession planting, season extension, or full carcass utilization for livestock).

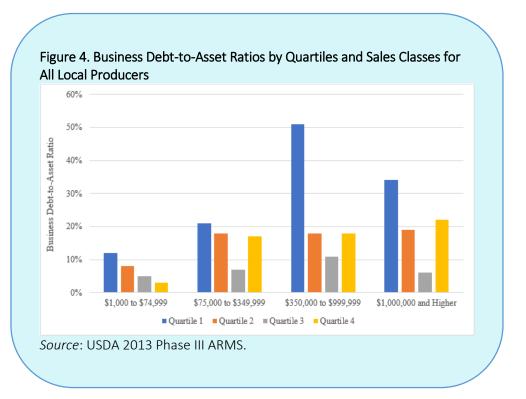
Figure 3. Asset-Turnover Ratios by Profitability Quartiles and Sales Classes for All Local Producers



Source: USDA 2013 Phase III ARMS.

Higher asset turnover values suggest that the farmer is more effective in generating sales for a given level of assets. Not surprisingly, except for the category of farms with less than \$75,000 in sales, the highest performing farms (i.e., those with the highest ROA) also had the highest asset turnover values.

The bimodal nature of the assetturnover ratio (Figure 3) suggests that both the least (quartile 1) and most (quartile 4) profitable farms were good at generating sales from their assets. However, the asset-turnover ratio does not integrate costs. Accordingly, it may be that the lowest performing farms have large debt burdens and interest payments from buying equipment, so profits may still be low. This seems reasonable given the higher debt-to-asset ratios carried by the least performing quartiles across sales categories (Figure 4). In contrast, more profitable farms may lease, purchase used equipment, or no longer make payments on land or equipment, thereby decreasing cost burdens.



Interesting patterns emerged in debt usage across the groups (Figure 4). Namely, within sales class average debt ratios were highest among the 1st and 4th quartiles, signaling that the worst and best performing producers used the most debt. One could imagine two different uses for such debt: Among top performers, debt may allow them to continue to grow and expand into new markets. For lower performers, debt may help cover cashflow shortfalls if expenses persistently outweigh sales.

Beyond financial ratios, we explore the efficiency of local food producers when controlling for other important factors: scale, costs, and producer characteristics. Using a more rigorous statistical approach (efficiency frontier analysis), we identified farm management decisions that are most likely to increase a farm's profitability. In brief, efficiency frontier analysis is a technique that compares all farms in a sample to the most profitable farms. This is done to identify differences between the two groups, isolating the impact of one factor while all others are held constant. For example, we can evaluate the impact of the choice of market channel on economic efficiency while holding scale, primary commodity, and operator characteristics constant. While the above results suggest that there are profitable opportunities for local producers across scale and marketing channel, we found that scale (measured as gross cash farm income) is the largest contributor to profitability for direct marketing producers. Although it is possible to be profitable at any scale, being larger makes an operation more likely to be profitable. Other operator decisions that could improve profitability included (in descending order of relative impact on profitability) decreasing total variable costs, decreasing share of land ownership, and decreasing labor expenses. Interestingly, changing marketing channels (i.e., changing from DTC only to intermediated markets only, or vice versa, or engaging both channels) was not a statistically significant driver of profitability after controlling for the other factors.

Exploring the Broader Economic Contributions of Local Food Sales

Farm viability is important to many, but the broader impacts to the communities where farms are located is important because of its broader reach and connections to rural development. The differences in expenditure patterns between local and nonlocal producers reported here are consistent with what Jablonski and Schmit

(2015) found in New York state and have potentially interesting implications for economic development. As one example, local producers are not only paying higher wages on average—potentially creating jobs that pay livable wages (especially for the \$350,000 and more sales classes)—but they may also be indirectly increasing household spending in the local economy. This spending may ultimately increase demand for goods and services throughout the local economy. While there is evidence that these differential spending patterns will have an impact, the size of the impact may be small overall (e.g., Gunter and Thilmany, 2012; Hughes and Isengildina-Massa, 2015; Hughes et al., 2008; Jablonski, Schmit, and Kay, 2016; Schmit, Jablonski, and Mansury, 2016; Swenson, 2010).

Other research (e.g., Winfree and Watson, 2017; Rossi, Johnson, and Hendrickson, 2017) has found that "buying local" or local food production can have a greater proportionate impact on the local economy than conventional retail/production when certain conditions are met. However, not all local and regional food sales will contribute equally to community economic development. As mentioned previously, not all local and regional producers are profitable. The results presented in Table 1 suggest that marketing channel decisions can affect producers' profitability. Local and regional production operations tend to be smaller than nonlocal operations. While proportionate expenditures might be higher, local producers' actual expenditure levels are likely smaller than those of their nonlocal counterparts.

Implications for Programs and Policies to Support Local Foods

This summary of research on farms and ranches that participate in local and regional food sales paints an interesting picture. These markets may influence farm performance, labor markets, and broader contributions to the local economy. By maintaining profitable businesses, local producers make economic contributions through their local business expenditures and tax payments. Perhaps more importantly, there is evidence that they create jobs for community members that pay competitive wages relative to less skilled agricultural labor work.

There is also evidence that sales through intermediated markets could bolster profitability. Encouraging institutional purchasing by governments (such as farm-to-school or food sales to hospitals and prisons) or supporting initiatives that foster food hub development to aggregate and distribute food from small and mid-scale producers may lead to higher economic impacts than public actions that support only DTC sales, like a farmers' market pavilion.

A share of local producers has adopted a profitable model of lean growth through renting or leasing land and equipment. Such strategies may be useful for smaller or less financially established farmers and ranchers selling through local food markets, helping to establish and position themselves for longer-term growth. Moreover, strategies that balance low or slower asset accumulation (such as land use policies that allow production on small plots of public land or establishing equipment-sharing organizations) while also coaching on the wise use of debt may align with increased profitability among local food producers.

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