A Systematic Review Characterizing Farm Direct Marketing Challenges, Strategies, and Opportunities

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Abstract

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Background: In response to growing demand for local food, direct marketing has grown markedly over the past thirty years but continues to make up a small percentage of farm sales in the United States. We aimed to perform a systematic review to understand the current state of direct marketing in the United States and identify common challenges, strategies, and opportunities to improve direct marketing sales.

Methods: We conducted a search of three databases and completed a qualitative analysis of both grey literature and peer-reviewed sources published in the United States between 1990 and 2018 to develop common themes to answer the stated research questions. The PRISMA framework was used to guide this systematic review.

Results: A total of 105 sources met inclusion criteria and were used in this systematic review. Sources were representative of all regions of the United States and shed light on profitability, size, concentration, and growth of direct marketing operations. We noted common challenges related to resources, competition, and market variability and sustainability. Many of the strategies we discovered directly addressed the challenges and pertained to areas such as marketing, advertising, and promotion, business and management, and social embeddedness. We also found opportunities for government and extension agencies to support direct market producers through technical assistance and policy.

Conclusion: The results outlined in this systematic review provide constructive information for food policy leaders to support producers in achieving their goals while meeting growing consumer demand and maintaining their core values.

Introduction

Direct marketing refers to sales made directly from the farm producer to the public through channels such as institutions, restaurants, retailers, farmers markets, food banks, food hubs, and community supported agriculture (CSA).[1] These channels have been a stable source of opportunity, particularly for small- and medium-sized producers over the past three decades. Many producers have experienced financial benefits from the increased level of control that comes with direct marketing. In addition, rising consumer demand for greater transparency about the production and processing of the foods they eat has contributed to producers' financial viability in direct marketing.[2]

Direct marketing improves producers' economic viability in a variety of ways, particularly for small producers. According to the 2017 Census of Agriculture, small producers—defined as those with less than $50,000 in sales—comprised 3% of all agricultural sales. However, 94% of farms selling goods direct-to-consumer were small producers.[3] Direct marketing allows producers to claim a greater percentage of the food dollar with the elimination of distributors or "middlemen," maintain more control over the prices of their products, and meet the growing demand of consumers.[4] But while the total number of farms in the U.S. is decreasing, the number of small farms continues to increase, a majority of which sell through direct-to-consumer channels such as CSAs and farmers markets.[5,6] The number of CSA farms in the U.S. increased from just 50 in 1990 to more than 7,000 in 2015.[7,8,9] Similarly, the number of farmers markets has tripled from 1996 to 2012.[10]

At the same time, demand for direct marketing has increased as consumers have become increasingly invested in the ways in which the foods they eat are produced and processed and the well-being of their local economies. A 2009 national survey of consumer motivations for purchasing local food found that almost 60% of consumers wanted to know the source of the product and 75% of consumers participated to support the local economy.[11] Additional reasons for increased consumer demand are related to rising concerns about the food safety, sustainability, and environmental consequences of our increasingly industrialized food production system.[12] Food production in the U.S. has become highly concentrated with 80-90% of food coming from 10-20% of the nation's largest commercial farms.[12] One way for consumers to know more about their food is to source from a shorter supply chain or buy local via direct marketing from a producer who can explain the production and/or processing practices.

With this expansion of direct market channels and consumer interest, there have been numerous publications, studies, case studies, surveys, and guides to characterize direct market sales, to ascertain the scope of direct marketing at local, state, and regional levels, and to better understand the barriers and opportunities for producers. However, to date, no publication has summarized this recent literature. While growth in consumer demand and the number of direct market channels for locally produced food provides unique opportunities for small farms to increase profits, existing research suggests that producers continue to face barriers. In contrast to conventional distribution and wholesale channels, direct marketing requires additional investments in time, labor, and promotion and marketing materials.[13] To help producers achieve their goals while meeting growing consumer demand and maintaining core values, it is important for food policy leaders to recognize the unique aspects of direct marketing. The goal of this study was to perform a systematic review of the direct marketing literature to understand the current state of direct marketing in the United States, to identify common challenges, strategies, and opportunities to improve direct marketing sales, and to outline future research needs.

Methods

We used the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) statement to guide this systematic review.[14] We aimed to answer the following research questions: What is the current state of direct marketing in the United States? What are the challenges, opportunities, and strategies for improving direct market sales?

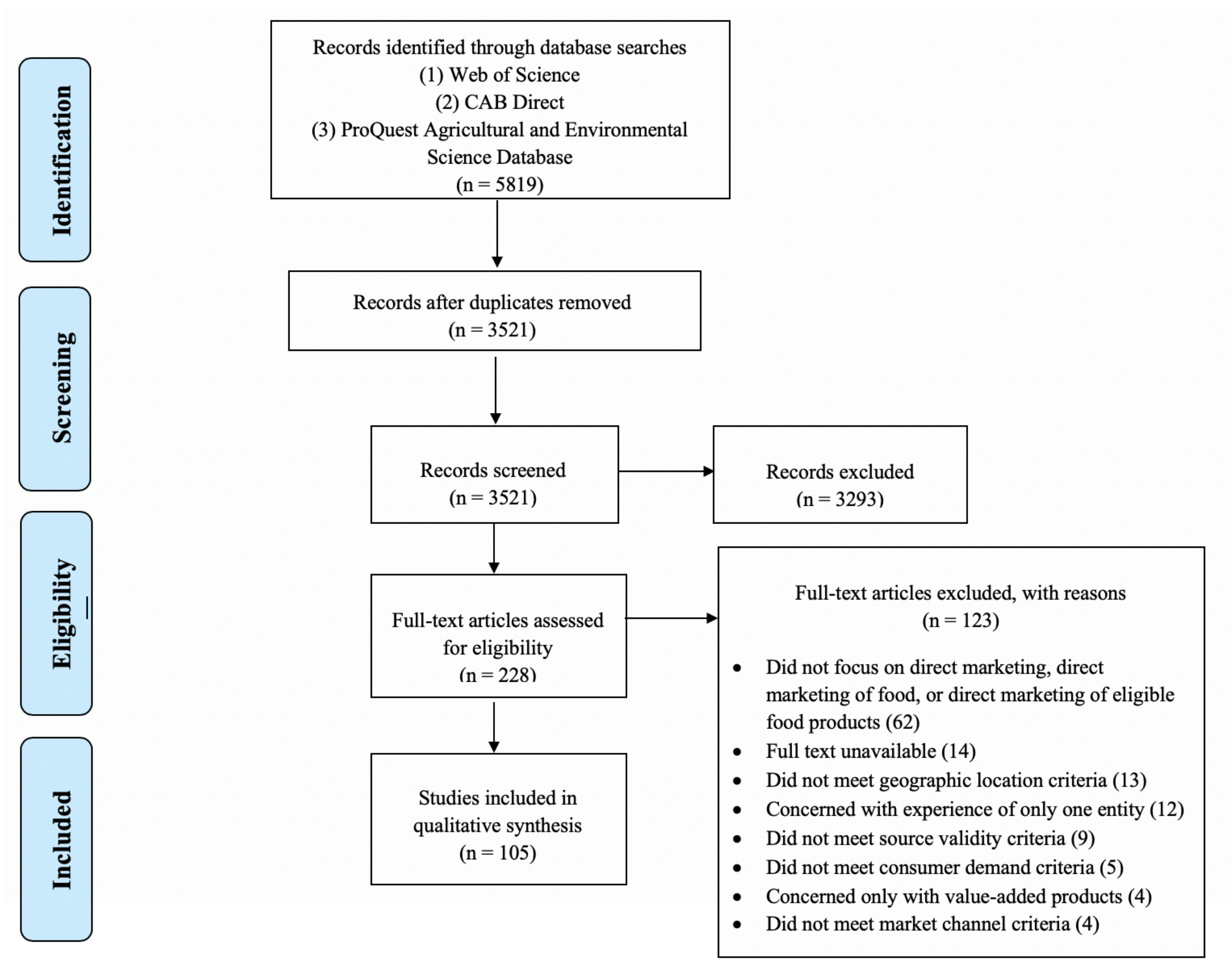

Figure 1: PRISMA flowchart of search and screening protocol of farm direct market sales literature.

Search Strategy

In August 2018, we conducted a search of three databases–Web of Science, CAB Direct, and ProQuest Agricultural and Environmental Science Database–to identify relevant peer-reviewed and grey literature published between 1990 and 2018 (see Figure 1). We also used

Google Scholar and the USDA resource database to identify grey literature and found a majority of the sources identified in these searches were duplicates of the sources already retrieved through the three databases. Finally, data from the USDA Census of Agriculture was used to clarify discrepancies and provide missing information that could not be gleaned from our sources alone.

Based on the research questions, we developed key search terms to identify all published and grey literature on topics related to the direct marketing of food. These terms were related to the following concepts: producers (farmer, food producer, rancher, grower, agriculture); direct marketing ("direct-to-market," direct market, direct market sales, direct market selling, "direct-to-consumer"); direct market channels (CSA, "community support agriculture," "food hub," institution, retail, restaurant, "farmers market," "food bank," school); and insights (behavior, perception, insight, preference, willingness, value, barriers, advantages, challenges, opportunities, obstacles, complications, strategies, motivations, factors, incentives, success). We then organized these terms into search strategies (see Table 1) to identify all relevant articles. We entered each search strategy into each of the three databases. We used Mendeley Desktop 1.19.3,[15] a reference manager software, to compile all identified sources. Duplicate sources were removed using Mendeley's "remove duplicates" tool, and titles and abstracts were screened for eligibility by one trained reviewer. The results include all sources available from January 1, 1990 to August 9, 2018.

Table 1. Search strategies developed based on research questions to identify all relevant articles

Search Strategy 1	(Farm* OR "food produc*" OR ranch* OR grower* OR agricultur*) AND ("direct-to-market" OR direct market* OR direct market sale* OR direct market sell* OR "direct-to-consumer") AND (CSA* OR "community supported agriculture" OR "food hub*" OR institution OR retail* OR restaurant* OR "farmers market*" OR "food bank*" OR school*) AND (behavior* OR perception* OR insight* OR preference* OR willing* OR value* OR barrier* OR advantage* OR challenge* OR opportunit* OR obstacle* OR complication* OR strateg* OR motivation* OR factor* OR incentive* OR success*)
Search Strategy 2	(Farm* OR "food produc*" OR ranch* OR grower* OR agricultur*) AND ("direct-to-market" OR direct market* OR direct market sale* OR direct market sell* OR "direct-to-consumer") AND (behavior* OR perception* OR insight* OR preference* OR willing* OR value* OR barrier* OR advantage* OR challenge* OR opportunit* OR obstacle* OR complication* OR strateg* OR motivation* OR factor* OR incentive* OR success*)
Search Strategy 3	(Farm* OR "food produc*" OR ranch* OR grower* OR agricultur*) AND ("direct-to-market" OR direct market* OR direct market sale* OR direct market sell* OR "direct-to-consumer" OR CSA* OR "community supported agriculture" OR "food hub*" OR institution OR retail* OR restaurant* OR "farmers market*" OR "food bank*") AND (meal deliver* service* OR food deliver* service* OR "blue apron" OR "hello fresh" OR "meal delivery" OR "food delivery")†

† These search queries were developed based on a research question specific to meal delivery services that was later omitted due to overlap with findings from the second research question.

Inclusion Criteria

Articles were included if they referred to direct marketing in the United States and were either peer-reviewed and published literature or grey literature provided or endorsed by credible governmental agencies or agricultural organizations/publications. Table 2 outlines important definitions used, and Figure 2 illustrates the types of direct market channels we included for the purposes of this review. Articles were excluded if they: did not address the sale of fruits, vegetables, meat, poultry, dairy products, or grains; discussed only the sale of fish or seafood; did not discuss products sold either directly to consumers or indirectly to consumers through restaurants, retail, or institutions; discussed only wholesale, distribution, or processing sales; only discussed sales outside of the United States; were published prior to 1990; were solely an interview with one producer or focused on the experience of a single farm; focused on consumers' abilities to access FMs; assessed or identified food safety risks at a single market; exclusively discussed value-added products; or full-text was unavailable (n=123, see Figure 1). In all, 105 articles were included in the systematic review.

Data Extraction and Analysis

One trained reviewer reviewed all eligible full text articles; a second trained reviewer additionally reviewed 10% of articles to validate the choice to include or exclude from review and the inclusion criteria were subsequently calibrated as needed. One reviewer identified and extracted key concepts of all full text articles into a Microsoft Excel spreadsheet organized by research question; a second reviewer followed the same protocol for 10% of articles. Following review, one reviewer compiled and sorted the data by concept and frequency of concept to capture analytical themes that emerged from the data. The reviewers met regularly with the study team to discuss emergent themes and ensure adherence to the criteria.

Table 2: Definitions of terms used for the purposes of this systematic review

Term	Description
Direct Marketing	An umbrella term for sales arrangements made directly between producer and buyer that allow producers to control the terms of the sale; do not involve "middle-man" distributor.
Indirect Marketing	Sales to channels that rely on a third party to handle all aspects of marketing; i.e., distribution, wholesale, and processing.
Intermediary Sales	Sales arrangements involving a third party before reaching the end consumer; include direct and indirect market channels such as retail, institutions, distribution and wholesale.

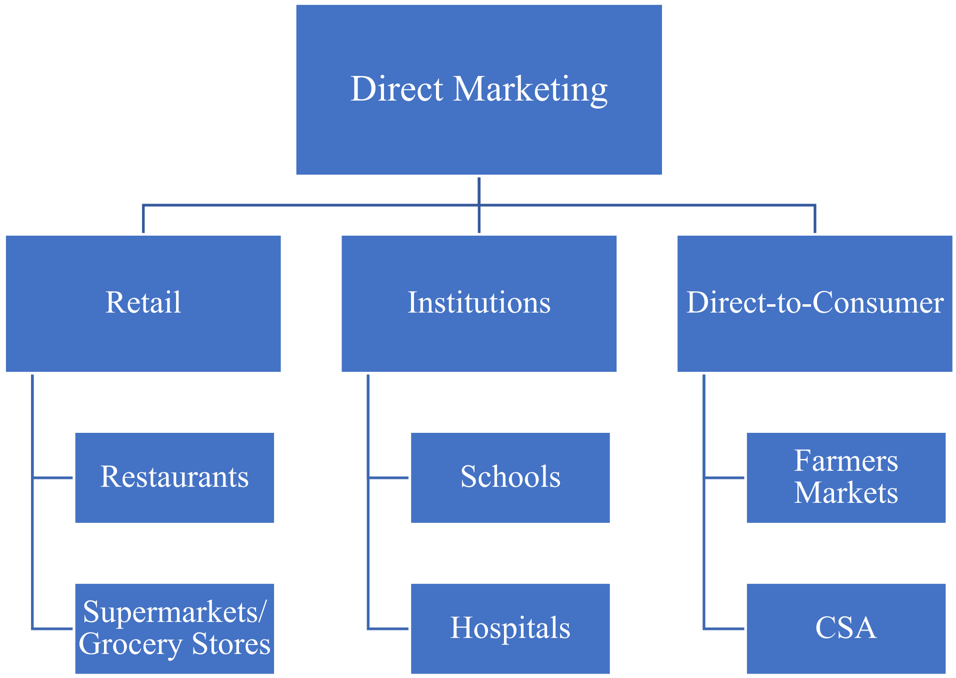

Figure 2: The main sales channel categories that fall under the umbrella of direct marketing and examples of market channels

Results

Out of a total of 5,819 sources, we eliminated 2,297 duplicates and screened 3,522 titles and abstracts. We reviewed the full text of 229 articles and identified a total of 105 relevant sources to assess the scope of direct marketing in the United States and identify themes regarding challenges, strategies, and opportunities to improve direct marketing. Sources were representative of all regions of the U.S., and a majority of articles (71%) explored direct marketing in specific counties, states, or regions. The remaining sources covered multiple regions or national data. The Midwest region was represented by 23 sources (22%), followed by the Southeast region with 20 sources (19%). The Southwest region was the least represented in our results with only 4 sources (4%). A majority of our sources were peer-reviewed journal articles (69%) followed by magazines and trade journals (14%). Most sources (53%) examined multiple direct market channels, followed by farmers markets only (13%) and food service/retail channels only (11%). A majority of articles (88%) were published after 1999. Thirty-eight percent were published between 2000 and 2009 and 50% were published between 2010 and 2018; 25% of all articles were published after 2014 (see Appendix A for a comprehensive table of sources and their characteristics).

Measuring and Defining Direct Marketing

Discrepancies in terminology and data collection methods have made it difficult to measure and evaluate direct marketing growth over time. Some publications included direct-to-consumer as well as institutional and retail sales within the definition of 'direct marketing,' while others examined only direct-to-consumer channels, placing other channels such as institutions and restaurants, which we now understand and define as direct marketing, in separate categories. Prior to 2014 and dating back as far as 1978, the Census of Agriculture recorded direct market sales as the "value of agricultural products sold directly to individuals for human consumption," which did not specify the types of direct market sales by channel.[16] In 2015, the USDA expanded the direct marketing definition for the Local Food Marketing Practices Survey to include other direct marketing channels, such as retail and institutions, but also included sales to wholesalers, processors, and distributors, which we did not include in the definition for this analysis.[8] The 2017 Census of Agriculture slightly modified its definition of direct marketing, recording the "value of food sold directly to consumers" and also captured for the first time the "value of food sold directly to retail markets, institutions, and food hubs for local or regionally branded products."[5]

Scope of Direct Marketing in the United States

Scale of direct marketing

Across all United States farms, direct marketing sales make up a very small percentage of total U.S. agricultural sales. However, despite variations in 'direct marketing' definitions and data reporting, data show clear growth in the value of direct marketing. While direct marketing is an important outlet for small producers, it is unclear whether the growth in direct marketing sales nationally has resulted in an increase in the number of small producers or an increase in small producers participating in this growing market.

Growth in direct market sales as a percentage of all U.S. farm sales has been minimal, but the total value of direct market sales has grown meaningfully since 2007. The 2007 USDA Census of Agriculture reported that nationally, across all farms both small and large, direct-to-consumer sales were valued at just 0.4% of total U.S. agricultural sales, or just over $1 billion in sales.[16,17] In 2017, the 2017 USDA Census of Agriculture valued direct-to-consumer sales at 0.7% of total U.S. agricultural sales, or $2.8 billion in sales.[5] Also in 2017, direct market sales through retail, institution, and food hub channels made up 2.3% of total U.S.agricultural sales, with $9 billion in revenue.[5] While still a small percentage of total U.S. agricultural sales, direct market sales are increasingly generating more revenue.

Despite increases in sales, the growth of participating farms was not clear. The number of producers who adopted a direct marketing strategy increased by 17% from 2002 to 2007.[18–20] The number of direct-to-consumer operations, those that produced and sold goods through channels such as farmers markets and CSAs, grew by more than 100% between 1997 and 2007. This growth resulted in a 50% increase in sales value, amounting to $1.2 billion in direct-to-consumer sales in 2007.[6,16,18–21] By 2012, approximately 150,000 producers, or about 6-8% of all U.S. farms, had implemented some form of direct marketing into their farm business.[6,18,19,22] However, between 2012 and 2015, the number of direct-to-consumer farms decreased by about 20%.[3] This downward trend in the number of direct-to-consumer farms continued through 2017; 2017 data showed that 130,000 farms participated in direct-to-consumer marketing, and just 30,000 participated in broader direct marketing outlets, selling to retailers and institutions.[5] Notably, the USDA altered its definition of direct marketing for the Census of Agriculture during this time and may not have yielded data that was comparable to earlier records which utilized distinctly different terminology.

Size of direct market producers

Most direct market producers across the U.S. managed small- to medium-sized operations, the majority farming fewer than 100 acres and some fewer than 5 acres.[3,18,23–27] However, this was variable based on the type of direct market channel in which producers participated. Farms primarily selling direct-to-consumer typically managed the smallest operations (less than 5 acres to 15 acres) while farms selling in diversified markets or intermediary channels, such as institutions, were larger with a wider range of deviation (less than 50 acres to greater than 100 acres).[20,22,23,28–32] Farms that sold exclusively through direct market channels were smaller on average than farms that did not participate in any forms of direct marketing or additionally sold to intermediary market channels. Fewer than 20% of direct market sales were attributed to medium to large farms. Large farms were two to three times less likely to adopt or rely on direct marketing strategies and more than 50% of all large local farms sold exclusively through intermediary channels.[6,7,34,16,18–20,22,25,28,33]

Profitability of direct market sales

Contributors to Profitability

Several sources noted that direct market farms made less profit than those who sold through wholesale and other indirect markets. Few direct market producers generated more than $250,000 in annual farm sales with several reports of less than $10,000 in sales for a majority of direct market producers.[2,6,36,18,23,24,26,28,31,32,35] However, there were a variety of factors impacting direct market profitability such as sales volume, price per unit, and marketing costs.

Profitability was reliant on sales volume which was typically larger in indirect markets than direct markets.[21,27,37,38] Several sources also reported that direct marketers were able to charge higher prices per unit and captured more of the consumer food dollar than when selling through wholesale markets, slightly offsetting the losses attributed to small volume sales.[19,39–46] Additionally, direct market farms typically raised a diversity of high-value crops and livestock and were more likely to market sustainably produced local goods and specialty items such as grass-fed beef and organic products.[16,19,50,22,24,28,40,41,47–49]

Several reports showed that consumers were willing to pay premium prices for the types of items that are typically sold by direct market producers, which had a positive impact on profitability in direct markets.[9,16,27,51–53] As a result, our review suggested that returns were higher in direct marketing, but due to smaller volume sales as well as additional labor, marketing, and operation costs, profitability was low compared2to wholesale markets.[19–22,38,42,54] The profitability of a farm business was additionally related to many other factors such as size and producer experience.[2,7,18,54,55] For example, many direct market farms were run by producers who had less farming experience, or farmed part-time and relied on off-farm income.[2,6,16,31,33,36,55–57]

Popularity and profitability of direct market channels

Direct-to-consumer market channels were the most thoroughly-researched and reported-on channels in the literature and were extremely popular among smaller-sized direct market producers. From 1994 to 2006, the number of farmers markets in the U.S. doubled from approximately 2,000 to 4,000; between 2002 and 2012, the number continued to increase by 150%.[9,19,43,46] Several sources reported that farmers markets and roadside stands were the most widely used direct market channels, and a majority of producers relied on them as their sole sales outlet.[7,16,60–65,25,31,33,35,37,48,58,59] Some sources stipulated that farmers markets posed fewer marketing challenges than other channels, and their accessibility made for an ideal starter market for new direct market producers, contributing to their popularity.[16,21,43] According to several reports, farmers markets acted as a reliable risk management tool by providing a gateway to additional marketing opportunities.[16,36,37,43,66] Additionally, some studies found that producers perceived farmers markets to be highly profitable and relied on sales through this channel for a substantial source of income.[37,44] However, additional research suggested that profitability at farmers markets was low, despite continued growth and producers' perceptions.[16,66,67] Several sources proposed that low profitability was due to the cost of labor for storage, packaging, transportation, and advertising as well as the fact that most farmers markets were only open a few days per week.[16,20,68,69] Additionally, leftover products were common at farmers markets and were often sold at very low prices at the end of the day in an effort to prevent waste.[16] Finally, many part-time producers reported selling their goods at farmers markets; because part-time producers generally generate less revenue than full-time producers, this particular make-up of farmers market vendors may help explain the lower sales of farms selling through this channel.[21,36]

CSAs were also popular but less widely used by producers compared to farmers markets. CSAs produced higher sales and net returns compared to farmers markets and other channels.[7,20,21,23,38] The number of CSA farms nationally grew to more than 12,000 in 2007, compared to only 50 in 1990.[7,9,35,46,48,70] In 2015, the number of farms participating in CSAs dropped to about 7,400 farms, making up about 6% of all direct-to-consumer farms, with sales valued at $226 million.[5,8] Some reports suggested that CSAs yielded more stable sales than other market channels. For example, CSA farms made just over $100,000 in average total sales in 2007, a much higher sales average than all U.S. farms; 34% of CSA farms made more than $50,000 while only 23% of all U.S. farms generated this level of revenue. Accordingly, fewer than 25% of CSA farms had annual sales below $5,000 compared with nearly half of U.S. farms that fell within this range.[23] In addition to the potential for higher sales, one source mentioned that CSAs had lower marketing costs as compared to farmers markets, resulting in higher returns.[20]

In addition to the popular direct-to-consumer channels, other direct market channels such as retail and institutions provided market opportunities for producers but were utilized by fewer farms. The 2017 Census of Agriculture reported that 22% of farms that sold through these channels made more than $50,000 compared to just 6% of direct-to-consumer farms making more than $50,000.[5] Retail markets had the potential for high profitability due to lower unit costs of production and marketing, but barriers to entry and sustainability challenges limited profitability.[16,31,48] Institutional budget constraints resulted in very low returns in these channels, but producers often chose to participate for the social benefits of providing fresh, nutritious food to communities and fostering brand awareness and customer loyalty.[2,40,45,71,72]

Challenges

Resource-Related Challenges

Producers consistently reported that direct marketing—compared to sales through wholesalers or distributors—required more resources, time, infrastructure, and skills to be successful. Reports showed that wholesale and distribution companies took most of the responsibilities off of the producer, allowing them to focus primarily on farming. In direct marketing, however, all aspects of the business were wholly the responsibility of the producer.[50,73] Skills in management, customer service, business, and promotion were necessary for a successful direct marketing operation but were typically outside of producers' core competencies.[16,57,60,74–76] This skillset differed from the knowledge needed for agricultural operations and may have been a source of intimidation or strain for new producers looking to adopt a direct marketing strategy.[16,57,64,75] Additionally, maintaining direct market operations required substantial time and energy which took time away from the field and could be draining and lead to burnout.[20,30,43,50,76,77] This was true of all direct market outlets but was particularly taxing in institutional and restaurant markets where buyers expected a high level of attentiveness and dependability. Producers who sold in these markets typically handled small, frequent orders, and put more time into billing, transportation, delivery, and maintaining good customer relations.[31,45,47,76,78] Producers also reported a lack of access to necessary resources and infrastructure such as storage, processing equipment, refrigerated transport, and packaging which was most important for larger volume sales to institutional and retail markets.[34,39,47,65,71,72,79,80]

Another challenge frequently cited by producers was the high cost of running a direct market operation paired with inadequate or inconsistent returns. Though many consumers were willing to pay premium prices for direct market goods, this profit potential was offset by high operational, marketing, and labor costs. [16,27,39,44,52,53,20,21,23,47,54,69,81] Farm-to-school markets yielded particularly low returns due to strict federal budget constraints and often did not significantly contribute to farm income.[31,45,71,72,78,79] As a result, some research suggested that farms that participated in some forms of direct marketing often lost money or failed to cover farm costs with direct market income.[2,42,82]

Producers frequently cited limited availability and access to the information and education needed to help them overcome challenges in learning new skillsets to run a business.[47,48,55,63,80,83] Research also suggested that there was a lack of government support, technical assistance, and grants for direct market operations which put them at a disadvantage compared to large-scale commodity operations.[56,81,84] This was particularly apparent when it came to food safety regulations, which many producers noted were designed for large-scale operations.[83] Navigating and complying with costly food safety regulations was a challenge, particularly for small-scale producers looking to participate in direct marketing.[28,40,48,79,84] This was especially challenging for producers looking to sell in institutional markets, which are required to follow strict federal guidelines when procuring food.[45] Several sources noted a knowledge gap when it came to the importance of food safety between food service directors and producers. As expected, food service directors were highly concerned with food safety and expected vendors to meet certain regulatory requirements. In some cases, they were less inclined to purchase from small farms due to food safety concerns.[40,45,79] Comparatively, producers considered food safety to be less of a priority.[40,79] For example, two surveys revealed that a majority of direct market farms were not certified in Good Agricultural Practices (GAP), a voluntary USDA audit program that verifies adherence to food safety practices.[28,79] One source speculated that this may be because producers were not aware of the importance of food safety for buyers in this market.[40]

Competitive Challenges

Several sources reported that the biggest competitive challenge to direct market farms was conventional retailers, such as supermarkets and big-box stores, which provided customers with a level of convenience that could not be matched in most direct market channels.[39,53,56,61,66,73,74] One additional challenge was that many conventional retailers have co-opted the values and ideals of direct marketing by selling goods with "organic" and "locally grown" labels at lower prices and higher volumes than possible for direct market producers.[29,42,50,67,73,78] This challenged the appeal of small-scale producers which allowed them to charge premium prices and provided customers with unrealistic expectations for cost, seasonal availability, and production of food.[50,63,68]

Another major source of competition for producers selling directly to institutional and retail markets were wholesale vendors, which offered buyers larger volumes and a more streamlined experience that direct market producers were not always capable of providing.[35,47,48,65,71,78] Several reports suggested that this was compounded by many government policies and financial incentive programs which favored large, commodity agriculture and often limited market opportunities for small farms and/or forced them out of business.[53,63,69,72,78,84] For example, the competitive bidding process required for food procurement in large institutions favored wholesale vendors that could accommodate budget restraints and meet high expectations for processing, service, and convenience.[35,45,72] Additionally, many reports indicated that food safety policies, regulatory constraints, and financial incentive programs were designed with a "one size fits all" approach and limited growth of the local food system in which direct market producers play a major role.[53,63,69,78,84,85]

Large-scale farms and conventional retailers were not the only sources of competition among direct market producers. Growth in direct marketing has introduced additional challenges and has forced producers to cope with the effects of market saturation. One major consequence was increased competition among other producers within popular direct market channels. For example, some sources suggested that saturation in the CSA market posed a barrier to new producers looking to enter the market.[9,29] Additionally, producers selling at farmers markers were forced to charge lower prices in an effort to compete with other vendors, further reducing profitability.[16]

Market Variability and Sustainability Challenges

As a result of a globalized food system, several sources suggested that many customers have come to expect a certain level of consistency that was unrealistic for direct market producers to meet. Seasonality, adequate supply, and unpredictability inherent with food production and sales was a challenge in small-scale direct marketing.[21,31,43,80] This was especially challenging in retail and institutional markets which demanded year-round consistency in volume and quality.[48,71,76,78,79,86,87] Producers managing CSA programs have also experienced challenges sustaining their businesses. Several sources pointed out that producers had difficulty retaining members from season to season, which increased their workload for the recruitment of new members and led to burnout.[29,30,50,77,88] One source reported that the average retention rate for a CSA program was 50%, which may explain why fewer than 2% of CSAs lasted longer than 15 years.[50,77] CSAs were initially created as a mutually beneficial opportunity for customers to support their community, but some sources suggested that customers' motivations for participating were evolving. For example, customers who expected a fixed volume and variety of goods were disappointed by fluctuations in boxes based on typical production challenges.[50] Another source noted that members were expected to adapt to production constraints and ultimately canceled their memberships due to inconvenience and lack of choice.[30]

Strategies and opportunities to improve direct marketing

The primary strategies and opportunities to improve direct marketing that were identified in this review included strategies for producers to enter the direct market or adopt new direct marketing strategies, and opportunities for government and extension agencies to provide support to producers to improve direct marketing.

Marketing, Advertising, and Promotion Strategies

Advertising was reported by several sources as a vital strategy for boosting direct marketing profitability and promoting consumerism.[32,55,57,60,89,90] One source reported that producers who spent more money on advertising also made more money in sales.[34] Advertising methods among producers varied greatly due to a variety of factors including changes in communication methods over the years. However, "word of mouth" was consistently identified by producers as the most widely used and most successful form of advertising in direct marketing channels.[49,51,88,91–94] Producers have taken advantage of this method in a variety of ways to expand their customer base. For example, some reported providing incentives or rewards to those who brought in new customers or members.[92,93] Other reported methods of promotion included CSA newsletters with information about the current harvest, distribution of recipe cards at farmers markets to promote the sale of certain products, and on-farm events such as kick-off festivals and youth outreach programs.[43,55,57] Additionally, studies suggested that impulse shopping was common at direct markets, and visually appealing displays helped to attract new customers and promote sales.[89,93]

The literature illustrated a variety of methods that producers used to appeal to their customer base and included many studies that attempted to understand customer demand in direct marketing in an effort to improve marketing strategies. However, the results varied greatly based on factors such as demographics and location suggesting that targeted marketing was crucial for direct market producers. Several sources concluded that a standardized, nationally relevant marketing strategy was insufficient due to differences in direct market customer behaviors and motivations.[39,49,85,90] In order to maintain a successful direct market operation, several studies reported that it was essential for producers to understand the unique demands and preferences of their target customer base and tailor their business as such.[55,57,73,88,89,95,96]

Multiple sources reported that diversifying markets and production strategies provided an opportunity for producers to mitigate risk and improve the efficiency of production while boosting sales.[21,36,97,43,45,55,62,71,72,81,94] Some reports indicated that committing to fewer, more profitable market channels was a more lucrative, less labor-intensive strategy for producers than selling in a large number of outlets.[16,54,67] One method presented which increased profits without requiring a great deal of additional labor was diversifying in markets where leftover or surplus items could be sold in small volumes.[20,35,71,72,79] Additionally, marketing items in populated, high volume areas, such as city centers or those with high foot traffic, provided an opportunity for producers to challenge the competition of conventional retailers and often improved profitability.[39,43,77,89,93,94,97,98] Some sources suggested that producers also took advantage of the increased profit potential of markets located in high-income areas.[67,85,98] Alternately, one source noted that some producers made a conscious effort to charge prices more in line with supermarket prices when selling in low-income areas.[85]

Business and Management Strategies

Creating a sound business and production plan and carefully selecting markets suitable for the farm operation were essential for overcoming many of the challenges to direct marketing.[35,43,45,85,96] Though investing in hired labor or infrastructure that extended the growing season increased costs, some sources reported that they were often offset by an increase in returns.[18,23,43,54] One source pointed out that producers who used high tunnels on one acre of land doubled the yield of tomatoes and summer squash resulting in higher profitability at farmers markets than in wholesale markets.[54] Another reported that investments in labor, though often avoided, proved valuable for improving profitability—a 1% increase in labor resulted in a greater increase in the value of production and sales than a 1% increase in acres in production.[18]

Direct market producers took advantage of unique opportunities to capitalize on markets where they were likely to receive a premium price for a product by offering unique options not routinely available through wholesalers or conventional retailers.[19,39,43,45,89,90] For example, niche items and food responsibly grown by small-scale producers were highly valued in restaurant markets. Additionally, customers in this market were reportedly less concerned with price than those in other markets resulting in higher returns which offset the additional labor costs.[43,47,78,99,100]

Social Embeddedness

Most direct market producers and customers valued the social benefits and community environment that resulted from direct market operations. Producers reported receiving tremendous value from participating in strong networks of producers who provided one another support and an opportunity to pool resources and share knowledge.[23,42,43,49,63,84,97] Novel market channels such as cooperative CSAs, food hubs, farmer co-ops, and producer-owned retail outlets allowed producers to overcome challenges related to inadequate supply and often eased entry into larger markets such as institutions or retail.[9,20,87,35,43,45,62,74,76,79,86] Through these and other direct marketing outlets, connection and customer rapport set direct marketing apart from conventional marketing and provided additional value for customers.[37,40,44,62,71,76,77,80,81,85] Additionally, connecting with customers, existing and prospective buyers, and the community on social media and face-to-face was an opportunity for producers to build a network while also providing education on production practices and gaining new business.[29,33,98,101,102,36,43–45,47,75,85,86] Some sources pointed out that extension and governmental agencies are in key positions to facilitate producer-producer and producer-buyer connections through databases or networking opportunities to help promote social embeddedness in the direct marketing food system.[48,84]

Technical assistance and policy opportunities

Many producers expressed interest in accessible technical assistance opportunities to encourage growth and sustainability in direct marketing. Education for new and established direct marketers that filled the knowledge gap and provided training on topics such as advertising and promotion, business planning, food safety policies, and navigation of regulatory standards and certifications, were reportedly beneficial for producers and helped to improve sales.[18,36,40,42,49,64,85,99,103] In addition, because compliance with business and food safety regulatory standards was a common barrier to entry for commercial markets such as institutions and retail, producers frequently cited a need for technical assistance in these areas.[45,78,86,96] While many programs intended to provide support to small-scale producers already exist, research suggested that an individualized and tailored approach was important to address the range of producer experience, farm size, and market type that is represented among direct marketers.[33,67] One source emphasized that a "one-size-fits-all" approach was inadequate to effect lasting change in the food system.[67] Specifically, producers who sought advice from professionals were more likely to adopt direct marketing strategies; targeting young and beginning producers for technical assistance opportunities was a beneficial strategy to improve direct marketing.[16,19,71]

Additionally, producers reported that they were dissatisfied with the food policies currently in place in the U.S. A commonly reported theme amongst producers was that many government policies favored large-scale and commodity operations which excluded small farms and were unsupportive of direct marketing efforts.[53,63,69,72,78,84] Some reports suggested that extension partners, governmental agencies, and advocates of small-scale producers contributed to growth in direct marketing by creating and supporting new, more flexible policies that were appropriate and realistic for producers of various sizes.[63,84] For example, one source recommended expanding programs and policies that incentivized or mandated institutional food procurement directly from producers in order to support direct marketing.[31] Other sources suggested that producers would also benefit from programs that provided technical support, grants, and working capital to meet the unique needs of direct marketers.[69,85]

Discussion

We assessed the state of research on direct market food systems in the U.S. This systematic review identified 105 studies and reports that examined the scope of direct market food systems in the U.S. and provided data regarding challenges, strategies, and opportunities to improve direct marketing. To our knowledge, no other review has summarized this body of literature.

Understanding the characteristics of farms that participate in direct markets and which direct market channels is important contextually. We found that direct market farms are typically small- to medium-sized because direct market channels favor lower volume sales and customers in these markets are often seeking more high-quality or niche products. Direct market producers typically raise a diversity of high-value crops and livestock and are more likely to market sustainably produced local goods and specialty items such as grass-fed beef and organic products. The most widely used market channels are direct-to-consumer markets such as farmers markets, CSAs, and roadside stands due to high customer demand and small, manageable volumes. Retail markets offer high profitability to direct market farms but often have additional barriers to entry and sustainability challenges. Institutional markets are less profitable but often provide a steady market and rewarding social benefits.

The common themes that emerged in this review provide a foundation of evidence to better understand direct marketing in the United States. This review also illustrates the varied ways in which data are being collected for this area of research. Because of design differences and variations in reporting, we were unable to fully compare results across individual market channels. A noteworthy example of this was the lack of alignment on the definition of direct marketing itself. In previous years, the Census of Agriculture only reported sales directly to individuals and did not quantify specific direct market channels. The recognition of direct market sales to retail, institutions, and food hubs by the 2017 Census of Agriculture provided insight into previously overlooked direct market channels and suggests progress towards more inclusive and standardized collection methods.[5] However, as a result of gaps in reporting prior to 2017, growth remains difficult to interpret. For example, we found that the value of direct market sales has grown substantially over the last twenty years while the number of farms participating in direct marketing appears to be declining. We also found that, in comparison, a smaller number of farms sold a greater value of goods through retail, institutional, and food hub channels. However, changes to the definition used for recording this data in the USDA Census of Agriculture limit our ability to appropriately compare the number of participating farms. Additionally, without prior data on retail, institution, and food hub sales, it's unclear whether this area of direct marketing is growing or declining and as a result, we cannot definitively conclude whether direct marketing as a whole is continuing to thrive.

A majority of the studies we reviewed examined direct marketing in a specific region, state, or county, and contributed to common themes generalizable to direct market producers nationwide. Given the heterogeneity and variation in definitions among these studies, we could not sufficiently compare direct marketing regionally. As a result, this review could not account for regional differences in the scope of direct marketing, though our review indicated that there was variation in the concentration, size, participation, and choice of direct market channel based on location. We found that direct market farms are typically small in size and produce a diverse range of crops. This suggests that regions that have higher concentrations of small farms likely have more producers participating in direct marketing. For example, some reports showed that the Northeastern region of the U.S. had a high concentration of small farms and thus more participation in direct marketing.[23,37] Alternatively, one survey of Nebraska producers, a majority of which grew corn and soybeans on an average of 600 acres, found that only 4% of respondents sold goods at farmers markets.[52] Variations such as these suggest that the concentration of direct marketing operations varies by state and region. Efforts should be made to better understand these variations so that attempts to improve direct marketing participation can be geographically targeted.

One main focus of our review was to assess growth in direct marketing, but our results suggest that growth at the farm level may be counterintuitive to the direct marketing model. This review underscored the importance of premium prices over quantity for producers. Many small farms have land and seasonality constraints that limit growth in volume. At the same time, this review found that rapid growth can result in a saturated market, which can produce novel challenges such as increased competition among direct market producers. In addition, growth and profitability do not appear to be the sole motivating factors for producers to participate in direct marketing. We found that many producers and customers value the community connection and social benefits that are unique to direct marketing. In some cases, producers may even forgo profitability in order to benefit their community. Thus, as programs and policies are developed to help direct market farms, it will be important to focus support on efforts that maintain important values of the direct market model.

This systematic review also synthesized the available evidence on the challenges and strategies faced by direct market farms. Challenges fell into three categories: resource-based (e.g., time limitations, infrastructure, skills, knowledge), competitive (e.g., competition on customers or price, or barriers to entry), and market variability and sustainability (e.g., seasonality, adequate supply, customer retention). Direct market farms adapted to these challenges through a number of strategies including diversifying market and production strategies, capitalizing on their value to overcome competition, making sound investments in labor and infrastructure to boost returns, and maintaining a sense of community with customers and fellow producers.

Interestingly, the challenges that were not addressed by the noted strategies were upstream barriers that producers did not have the power to overcome individually. These challenges included those related to unrealistic customer expectations for reliability and consistency, barriers to entry in certain markets that favor large-scale operations, and a lack of technical assistance and resources for producers to build new skillsets and navigate complex and costly regulations. These challenges illustrate additional opportunities for government and extension agencies to improve program accessibility, support new policies and programs, and provide assistance.

While efforts were made to identify all relevant studies, this review has several limitations. It was limited by the availability of existing literature and by publication bias. As stated previously, the research we reviewed was representative of various regions across the U.S. There was a higher concentration of sources from the Midwest and Southeast regions which may have led to results that were less common among producers in other regions. As a result, the challenges, strategies, and opportunities we identified may not apply to all direct market operations. We also noted that most of the sources we reviewed were focused on the more popular direct-to-consumer channels compared to institutional and retail markets. Finally, our analysis did not account for changes in challenges or strategies over time, and some of the early research we reviewed may have yielded results that are no longer relevant. One such example was a common recommendation to use newspaper and radio ads as a promotion strategy and the subsequent lack of discussion around the use of technology and social media.

Recommendations for Future Research

We hope this review will be helpful in exploring what can be addressed via national and regional public investments and to highlight the need to evaluate the outcomes of those investments using common measures. Importantly, our review indicated that customer demand and preferences vary from region to region. Future research to understand regional differences will be important to undertake, as well as local initiatives to support targeted marketing efforts.

The equity-related implications of direct marketing should also be further explored for opportunities and synergies. While some of our results showed that producers are motivated to improve their communities, others suggested that the quest for profitability may contribute to inequities. For example, we found that markets placed in high-income areas improve profitability, thereby limiting access to these markets and excluding low-income shoppers. We also found that many producers avoid selling goods to public institutions in part due to low budgets and poor returns. Government programs such as farmers market incentives for Supplemental Nutrition Assistance Program (SNAP) beneficiaries and Farm-to-School programs help bridge the gap between equity and profitability. Public investments may be the solution for motivating engagement in direct marketing while promoting equity and maintaining producer livelihood.

Finally, our review did not examine for population health or community benefits of direct marketing, though this would be helpful in determining the cost-benefit ratio for public investments. Other research suggests that direct marketing has economic and environmental benefits to communities.[104] Gaining a better understanding of the additional benefits of direct marketing will provide further measures of success and may help to justify the importance of funding and support for direct marketing.

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Appendix A

Source	Year	Source Type	Source Name	Study Region	Market Type
Marketing and purchasing Oklahoma fruits and vegetables. **(Henneberry, Barron)**	1990	Journal	Current Farm Economics	Southwest	General
An Alternative That Works **(Sinclair)**	1992	Magazine	Environmental Action	Southeast	CSA
Direct marketing of farm produce and home goods: direct marketing alternatives and strategies for beginning and established producers **(Cottingham)**	1994	Guide	University of Wisconsin Extension	Midwest	General

Planning for the retail farm market **(German, Toensmeyer, Cain)**	1995	Guide	Journal of Food Distribution Research	National	General
Farmer-to-Consumer Direct Marketing: Sales and Advertising Aspects of New Jersey Operations **(Nayga, Fabian, Thatch, Wanzala)**	1995	Journal	Journal of Food Distribution Research	Northeast	General
An economic analysis of community supported agriculture consumers **(Kolodinsky)**	1996	Research Project	Sustainable Agriculture Research & Education	Northeast	CSA
Characteristics of producers and consumers at northwest Missouri farmers' markets. **(Larson, Gille)**	1996	Journal	Transactions of the Missouri Academy of Science	Midwest	Farmers Markets
Factors influencing the decision to join a community supported agriculture (CSA) farm **(Kolodinsky, Pelch)**	1997	Journal	Journal of Sustainable Agriculture	Northeast	CSA

The Target consumer profile and positioning for promotion of the direct marketing of fresh produce: a case study **(Wolf)**	1997	Journal	Journal of Food Distribution Research	West	Farmers Markets
An Analysis of Consumer Preferences for Delaware Farmer Direct Markets **(Lehman, Bacon, Toesnmeyer, Pesek, German)**	1998	Journal	Journal of Food Distribution Research	Southeast	General
Farmers markets offer new business opportunities for farmers **(Feenstra, Lewis)**	1999	Journal	California Agriculture	West	Farmers Markets
An analysis of consumers' views and preferences regarding farmer to consumer direct markets in Delaware **(Kuches, Toensmeyer, German, Bacon)**	1999	Journal	Journal of Food Distribution Research	Southeast	General
Direct Marketing Today: Challenges and Opportunities **USDA** **(Bills, Roth, Maestro-Sherer)**	2000	Research Project	USDA AMS	National	General

People to people: Sustainable agriculture networking **(Bilek)**	2000	Research Project	Sustainable Agriculture Research & Education	Midwest	General
Retailing Opportunities at Farmers Markets **(Sanford)**	2001	Magazine	Bee Culture	National	Farmers Markets
Factors Affecting the Number and Type of Small-Farm Direct Marketing Outlets in Mississippi **(Morgan, Alipoe)**	2001	Journal	Journal of Food Distribution Research	Southeast	general
Managing Farmer and Consumer Expecations: A Study of a North Carolina Farmers Market **(Andreatta, Wickliffe)**	2002	Journal	Human Organization	Southeast	Farmers markets
What consumers want when buying meat direct **(No author)**	2002	Magazine	Successful Farming	Northeast	General
Direct Marketing Strategies **(Berton)**	2002	Magazine	Small Farm Today	National	General
Entrepreneurial outcomes and enterprise size in US retail farmers markets **(Feenstra, Lewis, Hinrichs, Gillespie, Hilchey)**	2003	Journal	American Journal of Alternative Agriculture	Various: Northeast, Midwest, West	Farmers Markets

Consumers' Preferences for Locally Produced Food: A study in southeast Missouri **(Brown)**	2003	Journal	Renewable Agriculture and Food Systems	Midwest	General
Developing successful direct marketing strategies for agricultural producers in Washington County **(Schafer)**	2003	Research Project	Sustainable Agriculture Research & Education	Northeast	General
Farm-to-Cafeteria Connections: Marketing Opportunities for Small Farms in Washington State **(Sanger, Zens)**	2003	Guide	Published by WSDA	West	Institutions
Case studies of local food purchasing by central Iowa restaurants and institutions **(Strohbehn, Gregoire)**	2003	Journal	Foodservice Research International	Midwest	Restaurants/ Institutions
Sustaining local agriculture: Barriers and opportunities to direct marketing between farms and restaurants in Colorado **(Starr, Card, Benepe, Auld, Lamm, Smith, Wilken)**	2003	Journal	Agriculture and Human Values	West	Restaurant

Common support for local agriculture in two contrasting oregon communities **(Stephenson, Lev)**	2004	Journal	Renewable Agriculture and Food Systems	West	General
Producing and marketing strawberries for direct market operations **(Safley, Poling, Wohlgenat, Sydorovych, Williams)**	2004	Journal	HortTechnology	Southeast	General
Growing and Selling Pasture-Finished Beef: Results of a Nationwide Survey **(Lozier, Rayburn, Shaw)**	2004	Journal	Journal of Sustainable Agriculture	National	General
Factors Influencing Demand for a Producer-Owned Beef Retail Outlet **(Lusk, Cevallos)**	2004	Journal	Journal of Agricultural and Applied Economics	Midwest	Producer-owned retail outlet
Marketing with PYO **(Naegely)**	2004	Magazine	American/Western Fruit Grower	National	Pick-Your-Own
Colorado Crop to Cuisine **(Thilmany)**	2004	Journal	Review of Agricultural Economics	West	Restaurant

Marketing locally produced foods: Consumer and Farmer opinions in Washington County, Nebraska **(Schneider, Francis)**	2005	Journal	Renewable Agriculture and Food Systems	Midwest	General
Expanding the marketing opportunities for organic growers in Texas **(Constance)**	2005	Research Project	Sustainable Agriculture Research & Education	Southwest	General
Iowa's producers' perceived benefits and obstacles in marketing to local restaurants and institutional foodservice operations **(Gregoire, Arendt, Strohbehn)**	2005	Journal	Journal of Extension	Midwest	Restaurants/ Institutions
Rhode Island Agricultural Tourism Project **(Nunnery, Ayars, Morreira)**	2006	Research Project	Sustainable Agriculture Research & Education	Northeast	Agri-Tourism
Marketing Strategies for Farmers and Ranchers **(Sayre)**	2006	Guide	Sustainable Agriculture Network	National	General
How Civic Is It? Success stories in locally focused agriculture in Maine **(Ross)**	2006	Journal	Renewable Agriculture and Food Systems	Northeast	General

Direct Marketing of Fresh Produce: Understanding Consumer Purchasing Decisions **(Bond, Thilmany, Bond)**	2006	Magazine	Choices (Published by American Agricultural Economics Association)	National	General
West Virginia Farm Direct Marketing: A County Level Analysis **(Brown, Gandee, D'Souza)**	2006	Journal	Journal of Agricultural and Applied Economics	Southeast	General
Direct Marketing Edamame (*Glycine max* [L.] Merrill) to Professional Chefs **(Montri, Kelley, Sánchez)**	2006	Journal	Journal of the Extension	Northeast	Restaurants
The importance of farmers' markets for West Virginia direct marketers **(Brown, Miller, Boone, Boone, Gartin, McConnell)**	2007	Journal	Renewable Agriculture and Food Systems	Southeast	Farmers Markets

The Adaptive Consumer: Shifting Attitudes, Behavior change, and CSA membership **(Russell, Zepeda)**	2008	Journal	Renewable Agriculture and Food Systems	Midwest	CSA
Slow Food lessons in the Fast Food Midwest **(McIlvaine-Newsad, Merrett, Maakestad, McLaughlin)**	2008	Journal	Southern Rural Sociology	Midwest	CSA
Value in the values: pasture-raised livestock products offer opportunities for reconnecting producers and consumers **(Conner, Campbell-Arvai, Hamm)**	2008	Journal	Renewable Agriculture and Food Systems	Midwest	General
Selling strategies for local food producers **(Thomas)**	2008	Newsletter	Ag Opportunities (published by Missouri state sustainable agriculture)	Midwest	General
Emerging market opportunities for small scale producers: proceedings of a special session at the 2008 USDA partners meeting **(Diamond, Barham, Tropp)**	2008	Presentation brief of USDA Partners Meeting	USDA Agricultural Marketing Service	National	General

Consumer demand for local produce at extended season farmers' markets: guiding farmer marketing strategies **(Conner, Montri, Montri, Hamm)**	2009	journal	Renewable Agriculture and Food Systems	Midwest	Farmers Markets
Growing Missouri's Farmers' Market Industry, one grower at a time **(No author)**	2009	Newsletter	Ag Opportunities (published by Missouri state sustainable agriculture)	Midwest	Farmers Markets
What influences Consumer Choice of Fresh Produce Purchase Locations? **(Bond, Thilmany, and Bond)**	2009	Journal	Journal of Agricultural and Applied Economics	National	General
Direct marketing of produce a challenge **(Wolfe)**	2009	Magazine	Southeast Farm Press	Southeast	General
Factors Affecting Small Colorado Producers' Local Food Sales **(Auld, Thilmany, Jones)**	2009	Journal	Journal of Hunger and Environmental Nutrition	West	General

Growing a Niche Market: A Targeted Marketing Plan for Colorado Homestead Ranches **(McFadden, Umberger, Wilson)**	2009	Journal	Review of Agricultural Economics	West	General
Urban Areas prove profitable for farmers selling directly to consumers **(Vogel, Low)**	2010	Magazine	Amber Waves (USDA ERS magazine)	National	General
Burlington Food Hub: Innovative Direct Marketing Opportunities **(Marcotte, Davis, Desai, Kolodinsky)**	2010	Research Project	Sustainable Agriculture Research & Education	Northeast	Food hubs
Barriers and Opportunities for Sustainable Food Systems in Northeastern Kansas **(Peterson, Selfa, Janke)**	2010	Journal	Sustainability	Midwest	General
Determining marketing costs and returns in alternative marketing channels **(Hardesty, Leff)**	2010	Journal	Renewable Agriculture and Food Systems	West	General

Direct food sales in the united states: evidence from state and county-level data **(Timmons, Wang)**	2010	Journal	Journal of Sustainable Agriculture	National	General
Evaluating Marketing Channel Options for Small-Scale Fruit and Vegetable Producers **(LeRoux, Schmit, Roth, Streeter)**	2010	Journal	Renewable Agriculture and Food Systems	Northeast	General
Marketplace Matchmaker **(Rusnak)**	2010	Magazine	Florida Grower	Southeast	General
Commercial Berry Crop Producers' Production and Marketing Strategies in Virginia **(Monson, Mainville)**	2010	Journal	Hort Technology	Southeast	General
Market diversification and social benefits: Motivations of farmers participating in farm to school programs **(Izumi, Wright, Hamm)**	2010	Journal	Journal of Rural Studies	Various: Midwest, Northeast	Institutions
Making Marketing Work **(Hale)**	2011	Magazine	Florida Grower	Southeast	CSA

Linkage between direct marketing and farm income: a double-hurdle approach (Uses ARMS data) **(Detre, Mark, Mishra, Adhikari)**	2011	Journal	Agribusiness	National	General
Use of direct marketing strategies by farmers and their impact on farm business income **(Uematsu, Mishra)**	2011	Journal	Agricultural and Resource Economics Review	National	General
Local Food Market Involves Wide Range of Producers **(Low, Vogel)**	2011	Magazine	Amber Waves	National	General
Decisions to Direct Market: Geographic Influences on Conventions in organic Production **(Sage, Goldberger)**	2012	Journal	Applied Geography	West	General
Local Food Initiatives in Tobacco Transitions of the Southeastern United States **(Russo)**	2012	Journal	Southeastern Geographer	Southeast	General

You can know your school and feed it too: Vermont farmers' motivations and distribution practices in direct sales to school food services **(Conner, King, Kolodinsky, Roche, Koliba, Trubek)**	2012	Journal	Agriculture and Human Values	Northeast	Institutions
Economic Viability of selling locally grown produce to local restaurants. **(Sharma, Strohbehn, Radhakrishna, Ortiz)**	2012	Journal	Journal of Agriculture, Food Systems, and Community Development	Midwest	Restaurants
Direct-to-consumer Sales of Farm Products: Producers and Supply Chains in the Southeast. **(Ahearn, Stern)**	2013	Journal	Journal of Agricultural and Applied Economics	Southeast	General
Who Buys Food Directly From Producers in the Southeastern United States? **(Maples, Morgan, Interis, Harri)**	2013	Journal	Journal of Agricultural and Applied Economics	Southeast	General
Agritourism Farms Are More Diverse Than Other U.S. Farms **(Bagi)**	2014	Magazine	Amber Waves (USDA ERS magazine)	National	Agri-Tourism

Does organic command a premium when the food is already local? **(Connolly, Klaiber)**	2014	Journal	American Journal of Agricultural Economics	Various: Midwest, Northeast	CSA
Do Farm Operators Benefit from Direct to Consumer Marketing Strategies? **(Park, Mishra, Wozniak)**	2014	Journal	Agricultural Economics	National	General
An Assessment of Market Strategies for Small-Scale Produce Growers **(Kim, Curtis, Yeager)**	2014	Journal	International Food and Agribusiness Management Review	West	Farmers Markets
Consumer and producer information-sharing preferences at Arizona farmers markets **(Fehrenbach, Wharton)**	2014	Journal	Journal of Agriculture, Food Systems, and Community Development	Southwest	Farmers Markets
Local food hubs for alternative food systems: a case study from santa barbara county, california **(Cleveland, Mueller, Tranovich, Mazaroli, Hinson)**	2014	Journal	Journal of Rural Studies	West	Food hubs

Growing local food: Direct market agriculture in Iowa **(Janssen)**	2014	Thesis	ProQuest Dissertations and Theses	Midwest	General
Examining U.S. Food Retailers' Decisions to Procure Local and Organic Produce from Farmer Direct-to-Retail Supply Chains **(Oberholtzer, Dimitri, Jaenicke)**	2014	Journal	Journal of Food Products Marketing	National	Retail
CSAs and the battle for the local food dollar **(Woods, Tropp)**	2015	Journal	Journal of Food Distribution Research	National	CSA
Uncovering Success Attributes for Direct Farmers' Markets and Agri-Tourism in the Mid-Atlantic Region of the United States **(Onyango, Govindasamy, Alsup-Egbers)**	2015	Journal	International Food and Agribusiness Management Review	Various: Northeast, Southeast	Farmers Markets and Agritourism

Impact of marketing channels on perceptions of quality of life and profitability for Wisconsin's organic vegetable farmers **(Silva, Dong, Mitchell, Hendrickson)**	2015	Journal	Renewable Agriculture and Food Systems	Midwest	General
Survey aims to collect farmer feedback on USDA programs **(No Author)**	2015	Magazine	National Hog Farmer	National	General
The Size and scope of locally marketed food production **(Vogel, Low)**	2015	Magazine	Amber Waves	National	General
Fact sheet: USDA invests in new market opportunities in local and regional food systems **(No Author)**	2015	Press Release	Agriculture Department	National	General
Ohio Livestock Producers' Perceptions of Producing and Marketing Grass-Based Beef and Lamb **(McCutcheon, Morton, Zerby, Loerch, Miller, Fluharty)**	2015	Journal	Agroecology and Sustainable Food Systems	Midwest	General

The Effects of Incorporating Community Supported Agriculture on the Profitability of Farms in the Northeastern U.S. **(Oberstein)**	2016	Thesis	ProQuest Dissertations and Theses	Northeast	CSA
Buying in: The influence of interactions at farmers markets **(Carson, Hamel, Giarrocco, Baylor, Mathews)**	2016	Journal	Agriculture and Human Values	Southeast	Farmers Markets
Rebuilding local foods in Appalachia: Variables affecting distribution methods of West Virginia farms **(Farmer, Betz)**	2016	Journal	Journal of Rural Studies	Southeast	General
What influences produce growers' on-farm expenditures for food safety? A Colorado investigation of the relationship among Farm Scale, Value of Sales, Market Channel, and Expenditure Levels **(Sullins, Jablonski)**	2016	Journal	Western Economics Forum	West	General

Awareness and Perceptions of Food Safety Risks and Risk Management in Poultry Production and Slaughter: A Qualitative Study of Direct-Market Poultry Producers in Maryland **(Baron and Frattaroli)**	2016	Journal	PLoS ONE	Southeast	General
Farmer Perspectives of Farm to Institution in Michigan: 2012 Survey Results of Vegetable Farmers **(Matts,Conner, Fisher, Tyler, Hamm)**	2016	Journal	Renewable Agriculture and Food Systems	Midwest	Institutions
Creating successful farm to school programs in florida: a county-wide feasability study of direct procurement **(Watson)**	2016	Thesis	ProQuest Dissertations and Theses	Southeast	Institutions
Factors affecting current and future CSA participation **(Vassalos, Gao, Zhang)**	2017	Journal	Sustainability	National	CSA

Co-creating an Alternative: The Moral Economy of Participating in Farmers Markets **(Leiper, Clarke-Sather)**	2017	Journal	Local Environment: International Journal of Justice and Sustainability	Southeast	Farmers Markets
Learning from food hub closures part 3 **(Del Signore, Barham)**	2017	Magazine	Rural Cooperatives	West	Food Hubs
Governments, Grassroots, and the Struggle for Local Food Systems: Containing, coopting, contesting, and collaborating **(Laforge, Anderson, McLachlan)**	2017	Journal	Agriculture and Human Values	Various: West, Midwest	General
Oregon producer and consumer engagement in regional food networks: motivations and future opportunities. **(Brekken, Parks, Lundgren)**	2017	Journal	Journal of Agriculture, Food Systems, and Community Development	West	General
The Economic Impacts of Local and Conventional Food Sales **(Rossi, Johnson, Hendrickson)**	2017	Journal	Journal of Agricultural and Applied Economics	Midwest	General

Individualist and collectivist consumer motivations in local organic food markets **(Schrank, Running)**	2018	Journal	Journal of Consumer Culture	Southwest	CSA
Healthy Food Incentive Impacts on Direct-to-Consumer Sales: A Michigan Example **(Mann, Miller, O'Hara, Goddeeris, Pirog, Trumbull)**	2018	Journal	Journal of Agriculture, Food Systems, and Community Development	Midwest	General
"It's the Amazon World": Small-Scale Farmers on an Entrepreneurial Treadmill **(McKee)**	2018	Journal	Culture, Agriculture, Food, and Environment	Midwest	General
Farm Business Financial Performance in Local Food Value Chains **(Ahearn, Liang, Goetz)**	2018	Journal	Agriculture Finance Review	National	General
Land access for direct market food farmers in Oregon, USA **(Horst, Gwin)**	2018	Journal	Land Use Policy	West	General

Sales Impacts of Direct Marketing Choices: Treatment Effects with Multinomial Selectivity **(Park, Paudel, Sene)**	2018	Journal	European Review of Agricultural Economics	National	General