

Socioeconomic Implications of Community-Supported Agriculture and Farmers' Markets
For Consumers

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TABLE OF CONTENTS

ABSTRACT 1

INTRODUCTION 3

LITERATURE REVIEW..... 6

 Food Access, Health and Nutrition 6

 Social Capital 9

 Social and Economic Welfare..... 10

 Income, Housing, and Economic Studies 11

 Social and Economic Barriers 12

 Civic Engagement..... 14

SIGNIFICANCE and POLICY/BUSINESS IMPLICATIONS 15

CONCLUSION 21

REFERENCES..... 24

ABSTRACT

The socioeconomic implications of community-supported agriculture (CSA) and farmers' markets are numerous but can be difficult to quantify. This paper examines academic research and policy related to the socioeconomic effects of these “farm-to-consumer” marketing strategies. This examination explores how economic incentives, including federal, state, and local government policy potentially influence the socioeconomic implications of CSAs and farmers’ markets for consumers. These policies are of particular significance in lower-income communities where increased investment may yield positive outcomes with respect to nutrition and food equity. Local food systems and food policy (e.g. nutrition assistance) function with the support of tax payer money. Determining the socioeconomic impact of direct-to-consumer sales of local food aids in performing the cost-benefit analyses needed to accurately assess the efficiency of government (i.e. taxpayer) investment in this area. Within this paper, the interactions of a variety of socioeconomic factors are examined, including the strengthening of social capital, health and nutrition benefits, civic engagement, and general economic development, as well as potential barriers and incentives to consumer access. These two marketing strategies differ with respect to business structure and, potentially, consumer impact. Research indicates generally positive socioeconomic implications for consumers, although disparities still remain in accessibility and affordability. Quantifiable data with regard to the socioeconomic characteristics of local food systems is relatively limited, although opportunity cost valuations are now being used in an attempt to assess net benefits. Similarly, current research assesses the economic influence of local agriculture, including direct marketing programs, only in broad terms. As local food movements grow and trends change, accurate assessments of economic impacts will be of increasingly greater value.

As a volunteer for an organization which works to promote sustainable food systems in Austin, Texas, I became interested in learning more about the movement to develop and strengthen local, sustainable food systems. A curiosity related to food policy and concern over the inequities associated with food

access nationally were also influential in developing these research questions. The observed influences on public health, urban development, and community engagement signal that these direct-marketing approaches have the potential to change the landscape and trajectory of local food movements.

INTRODUCTION

According to the U.S. Department of Agriculture’s *Local Food Marketing Practices Survey* for 2015, consumer spending related to direct farm sales reached \$3 billion, 35% of the \$8.7 billion total direct farm sales, as referenced in Table 1 below (USDA-NASS, 2016). This survey defines “direct farm sales” as those generated by the direct purchase of fresh and processed food from farms by consumers, retailers (e.g. restaurants), and wholesale outlets or distributors which sell “local” foods.

	\$ billion	%
Consumer	3.0	35
Retailer	2.4	27
Institution and local intermediary business	3.4	39
Total	8.7	100

Source: USDA NASS, 2015 Local Food Marketing Practices Survey.

According to the same survey, consumer purchases from CSA and farmers’ markets outlets totaled \$711 million and \$226 million respectively in 2015, as referenced in Table 2 below (USDA-NASS, 2016).

	Sales		No. of Farms
	\$ million	%	
On-farm store	1,322	44	51,422
Farmers’ market	711	23	41,156
Roadside stand away from farm	236	8	14,959
Community-supported agriculture (CSA)	226	7	7,398
Online	172	6	9,460
Other (pick-your-own, mobile market, etc.)	360	12	39,765
Total	3,027	100	114,801*

**Is less than the sum of individual practices because a farm may use multiple practices.
Source: USDA NASS, 2015 Local Food Marketing Practices Survey.*

According to the USDA Economic Research Service and National Agricultural Statistics Service, direct-to-consumer farm sales (including farmers’ markets, CSAs, on-farm stores, and roadside stands) grew from

\$877 million in 2008 (Low & Vogel, 2011) to over \$2.4 billion in 2015 (USDA-NASS, 2016). While still a minimal percentage of overall agricultural revenue nationally, these numbers indicate a strong consumer demand for local foods, one that continues to grow. Accurately assessing the level and type of demand present in a particular market and achieving optimal efficiency in meeting those demands (maximizing socioeconomic benefits to the community) is essential to policymaking related to local food systems.

Community-supported agriculture, popularly known as CSA, is a partnership built between the farmer and “members” or community “shareholders” who invest in anticipated costs for a specific farm/farmer in return for some share in the seasonal crop yield of that farm. In this way, the farmer and consumer share the risks and benefits of agricultural production (AFSIC, 2017). In contrast, farmers’ markets are retail environments where farmers may sell a variety of products and consumers may purchase goods from multiple farms/vendors. Both approaches are considered “direct-marketing” strategies. In this context, that means they provide a channel in which “farmer-producers sell their own agricultural products directly to the general public” (FNS, 2016). New federal policy proposals such as the Local FARMS Act, a bipartisan bill proposing “farm to fork investments” designed to “help farmers reach new markets” and “increase access to fresh, healthy local food” for low-income consumers (Brown, Pingree, Fortenberry, & Maloney, 2017), are indicative of how the topic of local agriculture and its role in strengthening local food systems is gaining greater national attention.

The purpose of this research is to assess the socioeconomic implications of community-supported agriculture (CSA) and farmers' markets for consumers. Specifically, does either of these direct marketing strategies provide consumers with improved access to the local food system through subsidies, differential costs, social capital development, or some combination thereof? If so, how do the various socioeconomic implications of consumer participation interact with one another? Do any of these impacts make a particular marketing strategy more or less effective at achieving socioeconomic objectives? Although agricultural direct-marketing strategies involve many stakeholders, this review will

focus on CSA and farmers' market consumers. This approach will generally exclude discussion of socioeconomic implications for producers/farmers, local businesses, community-based organizations, and other vested interests, except as they relate to the consumer experience.

This paper examines academic literature and policy related to the socioeconomic effects of farmers' market and CSA marketing strategies in the context of local food systems. This examination explores how economic incentives, including federal, state, and local government policy potentially influence the socioeconomic implications of these direct-to-consumer programs, particularly in low-income communities. While the majority of direct-marketing outlets impact consumers in urban areas, much of the literature does not differentiate between urban and rural as it relates to patrons, except where noted for specific case studies. As such, we will not differentiate here. Likewise, current research tends to combine impact results for CSAs, farmers' markets, and/or other direct-marketing methodologies, although this review will make a distinction where applicable. Consumer impact will be discussed in a broad sense rather than focusing on regional or community-specific data.

While this review seeks to explore the question of how the direct-marketing methods of community-supported agriculture and farmers' markets influence consumers socioeconomically and if they differ with respect to impact, it is not intended to be an exhaustive review of socioeconomic implications for local food systems. Consideration of the socioeconomic impact of these direct-marketing strategies to consumers is significant in that local food systems are growing and demand for local food is increasing. As such, the influence of farmers' markets and CSAs on local economies is growing as well. Increasing consumer demand for local food appears to be linked to a variety of ideas, including perceived health and nutrition benefits, support of local farmers, mitigation of environmental concerns associated with industrial agriculture and non-locally produced foods, and cultivation of social and cultural capital within communities (Stickel & Deller, 2014). Legislation related to the 2018 Farm Bill, including the Local FARMS Act, acknowledges this trend and seeks greater investment in local food systems, including direct-

marketing outlets such as farmers' markets and community-supported agriculture.

LITERATURE REVIEW

This literature review will synthesize information on the socioeconomic impacts of local food systems, including farmers' markets and community-supported agriculture, on consumers. Various assessments of the social and economic implications of these direct-marketing methods of sale have been documented. However, as noted by Stickel and Deller (2014) and Hughes and Boys (2015), there is a relative lack of empirical data related to consumer impact and, more generally, to the influence of local food movements on communities. Much of the current research is speculative or anecdotal in nature and insufficient with regard to the necessary theoretical and analytical testing required to provide verifiable and generalizable results related to the impact of direct-to-consumer farms sales. As Winfree and Watson (2017) suggest, research related to local food movements lacks much experiential or practical critique of current studies which promote the "buy local" culture or the necessary refinement of data and theory to accurately assess how these marketing strategies might influence local and regional economies.

Food Access, Health and Nutrition

Food insecurity is an important piece of the research regarding local food systems and the impact of direct-marketing strategies. Sonnino (2016) defines food insecurity as "bimodal", including factors of quality as well as quantity. She cites inequities in quantity and quality as having an impact on (and being impacted by) local socioeconomic and environmental conditions. She poses the idea of an emerging "new localism" working to address the complexities within food systems by rethinking producer-consumer relationships and policymaking associated with local food. Issues of consumption are also discussed, both over- and mal-consumption, as they relate to food security and public health. Sadler (2015) states that "access is fundamental as a prerequisite for the consumption of healthy food". He

theorizes that the location of a farmers' market may impact whether that market is able to address socioeconomic issues including nutritional inequality and disparities in healthy food accessibility, particularly in communities with food deserts. The USDA defines urban "food deserts" or "low-access" communities as areas where "at least 500 people and/or 33 percent of the census tract's population reside more than one mile from a supermarket or large grocery store" (ANA, 2010). As indicated by the USDA, these communities are typically devoid of fresh fruit, vegetables and other healthy, whole-food options.

Sadler's (2015) research in the Rust Belt region of the United States indicates that "low-income residents in inner-urban areas have poorer access to healthy foods when compared to suburbanites". Residents in city centers are often underserved with regard to food access, particularly in cities with declining populations. While farmers' markets are now moving into some urban food desert communities (Hughes & Boys, 2015), evidence demonstrating a positive correlation between local food system development and improved health of individuals living in these areas is somewhat weak and fails to adequately compare costs and benefits of the local and nonlocal food options which could be made available to these consumers (Stickel & Deller, 2014). Once again, empirical evidence to support the theory that healthy food consumption directly correlates to better economic outcomes or to alleviating urban poverty is lacking (Vitiello & Wolf-Powers, 2014).

The assumptions surrounding health benefits are another oft promoted aspect of the direct-to-consumer marketing of local foods. Public health, as it relates to obesity and increasing the consumption of fruits and vegetables, is another key objective in the promotion of fresh, locally grown produce. The idea of healthy food and a relative lack of access in some communities (i.e. food deserts) has, in some ways, become the cornerstone of the "buy local" movement and the popularity of farmers' markets and CSA programs. The impact of local foods and consumption derived through CSA and farmers' market outlets appears most quantifiable with regard to health impacts (Stickel & Deller, 2014).

Through his case study in New England, Berning (2012) uses statistical modeling to provide empirical evidence suggesting that the abundance and geographic proximity of farmers' markets and CSA programs is associated with weight decreases and other positive health outcomes in individuals. Likewise, Minaker et al. (2014) suggest an association between greater consumer participation in CSA and farmers' market programs and positive health outcomes, including higher fruit and vegetable intake, lowered BMI, and reduced waist circumference. However, as with similar studies, Berning notes limitations in the availability of pertinent data related to consumer population concentrations, necessitating the use of county-level data requiring statistical normalization between counties. As such, farmers' market and CSA accessibility results may be over or underestimated for some consumers. As with similar studies specific to a neighborhood, community, or region (e.g. Minaker et al., 2014), caution should be used when extrapolating results to larger populations. Although these findings indicate a correlation, the direction of causality is not altogether clear. Does greater availability of local foods result in healthier individuals or is availability increasing because of the demand of health-conscious consumers (Stickel & Deller, 2014)? These types of reverse causality relationships are prevalent in local food system research, resulting in issues of endogeneity. Also, as suggested by Minaker et al. (2014), different food-purchase outlets offer different types of food. With that in mind, it is logical that farmers' market shoppers would purchase and consume a greater number of fruits and vegetables than individuals who primarily shop at convenience stores. However, we should be conscious of equating farmers' market and CSA purchases to healthier eating patterns and look to the results of empirical studies rather than falling back on assumption or speculation.

Nutrition education as a supplemental service or program accessible via farmers' markets and CSAs is also perceived as a positive benefit for participating consumers, as is the "decreased risk for obesity and its co-morbidities" resulting from a healthier diet (Cotter, Teixeira, Bontrager, Horton, & Soriano, 2017). As indicated by a study of farmers' market patrons in Kentucky conducted by Mayes and Webber (2013),

farmers' market participants consume fruits and vegetables at a higher rate and are more educated with respect to nutrition than other Kentucky residents. However, endogeneity and reverse causality may also play a role in this study, meaning that diet and health-conscious consumers may be more apt to patronize farmers' markets. Sadler (2015) notes that researchers "emphasize the necessity of (food) programs that address not only access, but also food skills/knowledge and environmental cues" and that "one such venue for nutritional interventions is the community farmers' market". This may be particularly true for disadvantaged or at-risk populations who are underserved when it comes to healthful cooking and nutrition education.

Social Capital

One of the primary perceived "benefits" of direct marketing of farm goods to consumers touted by available research is the cultivation of social capital. In the context of farmers' markets and CSAs, "social capital" is defined as the strengthening of social bonds, relationships, and networks between agricultural producers and consumers. According to Vitiello and Wolf-Powers (2014), social capital is essential for "inside-out" community revitalization and, per Winfree and Watson (2017), local economic development. As with many aspects of community and economic development related to CSAs and farmers' markets, social capital can be difficult to measure (Vitiello & Wolf-Powers, 2014). It is an inherently ambiguous concept which lends itself to speculative discussion. Brinkley (2017) theorizes that growth in social capital may also increase knowledge related to "social, economic, and environmental effects of food consumption by tightening feedback loops which concentrate economic and social capital toward values-based goals" within communities. Rice's (2015) work discusses the influence of the "local/good versus global/bad" viewpoint on farmers' market participation and the concept of "consumer activists". Rice frames these discussions through the "anti-consumerism" lens, arguing that these shoppers' motivations tend to be based largely on ethical and environmental

concerns. Consumers may perceive participation in direct-to-consumer farm sales as a way to contribute to greater income and employment opportunities for producers, help alleviate issues of food insecurity for low-income families within their community, and promote environmental stewardship through support of organic farming and other sustainability-related initiatives.

While cultivation of social capital is often used as an argument in support of direct-marketing of local food and considered important to small business growth (Hughes & Boys, 2015), few studies offer the empirical analysis necessary to validate these claims (Stickel & Deller, 2014). However, the idea of social capital as a means of connecting consumers to their food sources, providing food-based education and healthy lifestyle advocacy, and in creating reciprocity between local consumers and producers, is important to note (Stickel & Deller, 2014). I include it in this discussion to highlight its potential influence on economic welfare.

Social and Economic Welfare

Winfree and Watson (2017) suggest that if/how improvements to social welfare occur and to what degree depend on a multitude of factors, including consumer motivations for buying local, as well as market outlet preferences (i.e. CSA versus farmers' market). Winfree and Watson point to the economic characteristics of local food systems which are often ignored in assessing the impact to a community's social welfare. For example, if consumers falsely interpret externalities associated with the market for local food and internalize what they perceive as positive consequences of local food consumption, the market will trade too heavily in local goods, making equilibrium unachievable and resulting in deadweight loss. Winfree and Watson postulate that, in this type of market, policy measures intended to achieve autarky in lieu of trade gains (from non-local goods) would, instead, reduce community welfare. Winfree and Watson outline the notion of "import substitution" with respect to local food systems and the theory that consumers purchase local goods over imported products in an effort to

retain income and revenue within the local economy. In terms of local consumption, Vitiello and Wolf-Powers (2014) state that “strategic investment can lead to job growth and stability” through changes in consumptive behavior which reduce reliance on imports, thereby promoting local production. Vitiello and Wolf-Powers also suggest healthy food access and local food systems as tools to mitigate economic insecurity, among both producers and consumers, but warn that urban agriculture and healthy food consumption on their own should not be considered singularly transformative.

Review of the current literature reveals a bias towards promoting local food systems, farmers’ markets, and community-supported agriculture. As referenced by Schupp (2017) and Stickel and Deller (2014), the idea of a “local trap” is prevalent within existing literature. This theory states that there is a presumption that “if global or large scale is bad then local or small scale must be good”. This is not to say that the local foods movement itself is fallacious. Rather, this theory highlights the fact that further research and policy analysis would be beneficial (Stickel & Deller, 2014).

Income, Housing, and Economic Studies

Using Census of Agriculture data for the 2002 to 2007 timeframe, Brown, Goetz, Ahearn, & Liang (2014) estimate county-level personal income growth of \$0.04 per year for each \$1 increase in overall farm sales, which includes both industrial and community-based agricultural sectors. While specific contributions of farmers’ market and CSA sales to this income growth remain unclear, Brown et al. point to the “multiplier effect” (both indirect and induced effects) of local food expenditures as providing farmers with a greater portion of the food dollar, thereby providing perceived economic benefit to the community. This economic benefit may also manifest in new housing developments centered on small farms or community gardens, known as “agrihoods”. This “development-supported agriculture” (Birkby, 2016) is an emerging concept and studies are limited. Changes to housing patterns with respect to location, design, and amenities, may be associated with local food movements and increased consumer

participation in farmers' markets and CSAs. However, determining the direction of causality can prove difficult. In addition, a lack of empirical evidence directly linking local farm sales and regional economic growth leaves room for ambiguity in economic impact assessments related to direct-to-consumer farm sales, income, and housing.

Economic studies of local food and direct sales utilize input-output models, sensitivity analysis, and opportunity cost examinations in an attempt to assess local or regional impacts. However, as noted by Stickel and Deller (2014), rigorous testing and analytics in this area still remain weak. As they indicate, this is largely the result of data inconsistencies and restrictions which result in research which must rely heavily on survey analysis, case study, and data estimates. In their toolkit, *The Economics of Local Food Systems*, the USDA Agricultural Marketing Service (2016) notes the importance of opportunity cost considerations in these studies. In this context, these costs would be measured in terms of the money consumers spend locally on direct-marketing farm sales versus what those dollars could have purchased from other economic sectors (e.g. retail or wholesale businesses). Hughes et al. (2008) further illustrate this concept and how it may reinforce research results in their discussion of appropriate survey structure and the benefit of determining exactly where consumer spending would be directed if not towards farmers' markets or CSAs. In addition, applicable studies should quantify the benefit of increased income for local producers versus decreased income for non-local and chain retailers, assuming losses from the latter are less impactful due to weaker connections locally.

Social and Economic Barriers

While the perceived and observed socioeconomic implications of farmers' markets and CSAs outlined in the current literature tend to be positive, there are also barriers to access and other disparities among consumers worth noting as part of this review. As discussed with regard to food deserts, inequities in food access affect approximately 12 percent of the U.S. population at some time during the year

(Macias, 2008). Schupp's (2017) research explores the socioeconomic characteristics of communities and their members which potentially influence the presence or lack of farmers' markets. These may include, but are not limited to, quality of infrastructure, racial make-up, poverty rate, and percentage of social subsidy recipients. Schupp questions the success of local food movements in creating equitable access to fresh, local foods for all consumers and if farmers' markets truly democratize local food access or if they tend to cater to primarily white, affluent neighborhoods. He also notes that the success of social movements requires resources and, as a result, tends to attract an elite "conscience constituency" whose social and financial influence may in fact reinforce the socioeconomic disparities and/or barriers these movements are attempting to address.

Similarly, DeLind (2011) explores the idea that local food system projects such as CSAs and farmers' markets may not sufficiently address the issues of privilege and disparity that are part of a creating a sustainable system. DeLind refers to the popularity of "individualizing" the local food movement which tends to ignore the influence of socioeconomic inequity and "existing power structures" on these systems. She poses the question of whether we should be less concerned with the consumer and more concerned with community members. For the consumer, eating locally must be considered in the context of one's specific community and its unique economic and social characteristics.

Likewise, Brinkley (2017) argues that inequity persists with respect to how markets are located geographically and economically, with a greater abundance found in the "Northeast or the West Coast, near densely populated urban markets in areas with high median home values". Brinkley notes the ability of direct-marketing within local food systems to "combine purchasing power with the 'soft power' of a social movement". However, her research cautions that different direct-marketing strategies may possess different power structures and, thus, may promote somewhat different values. As an example, farmers often travel longer distances to farmers' markets to sell goods but consumers must generally travel longer distances to farms to obtain CSA shares. Rice (2015) also notes the

perpetuation of barriers to inclusion and participation in farmers' markets and the fact that the typical farmers' market patrons continue to be "white, affluent, well-educated women". Further research indicates that farmers' markets may fail to "address socioeconomic and racial disparities in food access" and barriers to participation such as time, distance, and affordability (Sadler, 2015). Current research also observes a lack of perceived relevance and/or cultural relatability as barriers to consumer participation in direct-marketing schemes (Cotter, Teixeira, Bontrager, Horton, & Soriano, 2017). Cotter et al. (2017) compare both real and perceived barriers to participation and, therefore, benefits received. Their study indicates that, for farmers' markets, potential barriers include price and location/transportation. For CSA programs, the barriers were more subjective. While price is a primary concern, it is coupled with the lack of choice in produce received, a characteristic inherent to the CSA model.

Civic Engagement

For the consumer, engagement in the local food system and participation in direct-marketing schemes such as farmers' markets and CSAs can be as much about their experience and cultivating "civic awareness" as it is about the products purchased (Stickel & Deller, 2014). In their research, Obach and Tobin (2014) attempt to evaluate if "civic agriculture" truly enhances community engagement and to identify if engagement differs among participants in different types of civic agriculture (e.g. farmers' markets and CSAs). It also explores the idea of civic agriculture as a means to re-engage a public which has developed "low perceptions of personal efficacy" in an age where small, locally owned businesses have been largely replaced by national and international corporations. Changes in agriculture and the move from small family farms to large industrialized operations mirror these trends. Obach and Tobin note that CSAs require a higher level of investment and commitment from consumers as a result of the inherent risks in the CSA business model, as described in the Introduction of this paper. However,

research also indicates a higher rate of volunteerism among CSA shareholders (76%) as compared with farmers' market participants (66%) (Obach & Tobin, 2014), although reverse causality may again be a factor here. Obach and Tobin's research suggests that civic engagement, which potentially fosters volunteerism and other altruistic behaviors, could positively impact a community's social welfare, in the aggregate. Also important to note from this study is that, although "food-buying is fundamentally an economic activity", and a necessity, that does not mean it is limited only to that purpose.

SIGNIFICANCE and POLICY/BUSINESS IMPLICATIONS

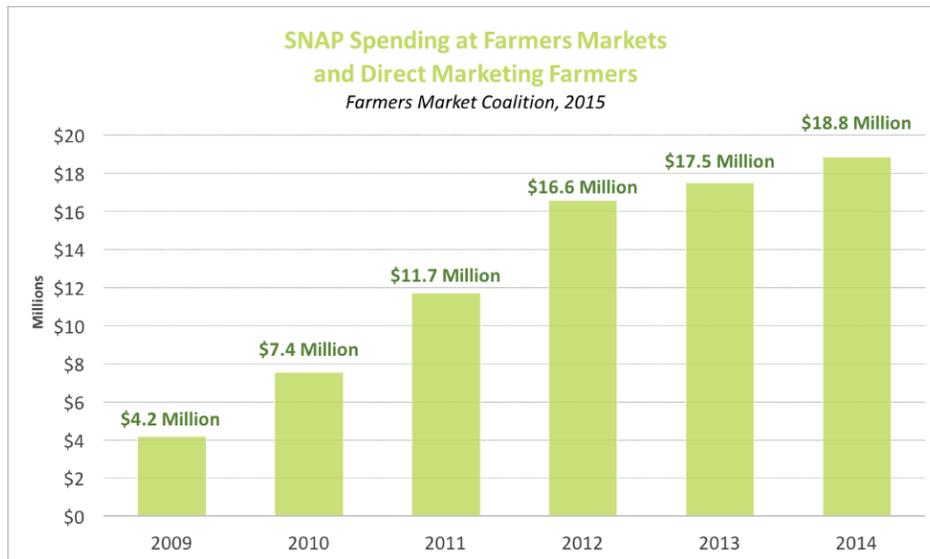
The literature pertaining to the socioeconomic impacts of farmers' markets and community-supported agriculture on consumers reveals several policy implications for direct-to-consumer farm sales and local food systems, including:

- Upholding SNAP and other federally subsidized nutrition assistance as part of the 2018 Farm Bill will protect food access for low-income households, including access to local food purchased via farmers' markets and CSA programs.
- Government subsidies aimed at helping producers obtain the necessary authorization, equipment, and training needed to process EBT SNAP payments could increase the demand for farmers' market and CSA sales for low-income households.
- Increasing state and local investment in nutrition assistance subsidies via FINI and other programs (e.g. Double Up Food Bucks) would further increase demand for direct farm sales for SNAP and WIC recipients.

- Implementing the objectives outlined in the Local FARMS Act would strengthen the producer's role in local food systems, thereby providing more local food options for consumers.
- State and local support for community garden, farm-to-school, and cooking education/training programs creates informed consumers more apt to participate in local direct farm sale opportunities.

The 2018 Farm Bill will be coming up for debate early next year. The 2018 version is expected to be similar in scope and objective to the 2014 bill which authorized approximately \$100 billion per year in federal spending on agriculture related programs (Masters, 2017). However, some important facets of this legislation which impact direct-to-consumer sale of farm goods could be vulnerable to change or removal. Potentially, nutrition and agricultural programs could be separated and nutrition assistance could be reduced or eliminated, replacing programs like SNAP with state-level block grants (Masters, 2017). Significant cuts to this funding could certainly have adverse impacts to consumers of local food and participation in farmers' markets and CSAs.

Currently, the majority of funding associated with the Farm Bill (approximately 80%) is devoted to nutrition assistance (i.e. SNAP) (USDA-ERS, 2017). This program is essential in aiding the nutritional needs of children living in poverty. The number of farmers and farmers' markets currently accepting SNAP benefits is five times greater than it was in 2009 (FMC, 2017). The graph below illustrates total SNAP spending at farmers' markets and direct-marketing farmers from 2009 to 2014:



Source: United States Department of Agriculture Food and Nutrition Service. Correction: We previously published that 2013 SNAP Redemption was \$21 million. USDA recalculated and corrected this amount to \$17.5 million because several retailers were incorrectly labeled

During this timeframe, SNAP spending at these outlets increased from \$4.2 million to \$18.8 million. However, close to two-thirds of farmers' markets still do not have the necessary authorization or equipment to accept this benefit (FMC, 2017). Several barriers persist which prevent the complete integration of this subsidy into the market of direct-to-consumer farm sales. First, there is a hardware/technology requirement which can be costly and inconvenient for farmers, market managers, and farmers' market vendors. A "point-of-sale" or POS terminal or a smartphone is needed to process the transaction which requires training, bookkeeping, and community outreach to SNAP recipients. There is also a fee charged to the farmer/market/vendor for each transaction. The USDA also requires that an organization which runs multiple markets purchase and operate a separate terminal for each site. However, measures are being put forth to mitigate these barriers. USDA subsidies are helping newly SNAP authorized markets with equipment, set-up, and transaction fees. Enabling a larger percentage of farmers and farmers' markets to accept these benefits would increase consumer participation. In response to these challenges, state SNAP agencies should continue efforts to mitigate technical and financial challenges in extending these benefits to the local market.

While the option to utilize SNAP and WIC benefits at farmers' markets and for CSAs incentivizes local, healthy food purchases, there is also some degree of training and investment required by vendors in order to process WIC benefits and EBT (electronic benefits transfer) SNAP payments (Cole, McNees, Kinney, Fisher, & Krieger, 2013). Cole concludes that "vendor participation could be increased by simplifying the enrollment and transaction processes and reducing costs associated with accepting benefits". In turn, these subsidies should increase vendor and consumer participation in the market. As one of the hallmarks of U.S. food policy, nutrition assistance programs have the potential to increase access to and affordability of fresh, locally produced foods for low-income communities. While other barriers to access must also be addressed, research suggests that equipping farmers' market managers and vendors with the knowledge and tools necessary to enable SNAP and WIC recipients to utilize these benefits at the local level would be beneficial for both consumers and producers. This could include training related to nutrition assistance options, processing benefit transactions, and community outreach support.

Federal, state, and local policies related to farmers' markets, CSAs, and their consumers primarily address affordability through SNAP (Supplemental Nutrition Assistance Program), WIC (Women, Infants, and Children), and state/local subsidies such as "Double Up Food Bucks" in Michigan (FFN, 2016) and the "Double Dollars" project facilitated by the Sustainable Food Center in Austin, Texas (SFC, 2017). These state and local programs double SNAP and WIC benefits for farmers' market and CSA purchases under a specified dollar limit. However, DeLind (2011) suggests a lack of adaptability within food and health-related programs such as the National Association of Farmers Markets Nutrition Programs (FMNP), administered by the USDA as part of the WIC program. DeLind cites the folly of applying one set of "best practices" to all markets, meaning that different communities may require different levels of investment to incentivize consumers. Concerns related to the political and economic agendas of these programs are relevant to the discussion of their socioeconomic impact on consumers. Cole (2013) suggests that

hindered access to fresh fruits and vegetables in low-income communities typically results in higher occurrences of poor nutrition. Referencing their overall flexibility, the USDA and Centers for Disease Control both favor increased access to farmers' market services for underserved communities as a way to increase healthy food consumption (Cole, McNees, Kinney, Fisher, & Krieger, 2013).

One bright spot in the current policy is a program created with the 2014 Farm Bill called FINI - the Food Insecurity Nutrition Incentive. Over a five-year period, this program is scheduled to provide \$100 million to double SNAP benefits used for vegetables and fruits (FMC, 2017), similar to the state and local Double Up Food Bucks and Double Dollar programs mentioned previously. The primary objective of this program is to bring SNAP incentives to a greater number of markets, including local direct-marketing venues. Continued investment in and expansion of this program under the 2018 Farm Bill would likely bring a large number of SNAP recipients to farmers' market and CSA programs, thereby increasing the consumer base and amplifying the socioeconomic impacts resulting from direct-marketing sales.

The Local Food and Regional Market Supply Act or Local FARMS Act, a supplement to the 2018 Farm Bill, was introduced to Congress on October 4 of this year. This proposal includes several policy initiatives which have the potential to impact the accessibility and affordability of local direct-to-consumer farm sale programs. Primarily, it addresses the issues of healthy food access for low-income communities, agricultural infrastructure support, and increased market access for small farmers (NSAC, 2017). The bill calls for increased investment in development of marketing and business strategies for farmers and improvements to processing and storage capacity, as well as transportation which connects farmers and their products to consumers. Strengthening these aspects of the local agricultural market should allow more farmers to enter this market, thereby providing more local food opportunities for consumers. If increased access to healthy, local foods is observed to have positive socioeconomic impacts to the consumer, passage of this bill would reinforce these outcomes.

In addition to preserving nutrition assistance programs and implementing legislation focused on strengthening local food systems, expanding state and local support for public food education in the form of free or subsidized cooking and nutrition classes, farm-to-school programs, and community gardens will create more well-informed consumers. Consumers who are versed in the growth and consumption of fresh, nutritious, locally sourced food are more likely to participate in local direct farm sale opportunities. As Vitiello and Wolf-Powers (2014) suggest, this is of particular significance for low-income communities where the “cumulative impacts” of community gardens may aid in food security and social capital development, as well as increase tax revenue and real-estate values. Farmers’ markets which offer cooking and nutrition education can also serve as a point of intervention in addressing issues of food insecurity in at-risk populations (Sadler, 2015). Farm-to-school programs work to incorporate fresh, healthy foods into school lunches and bring local food system awareness and education to children (SFC, 2017).

It is worth noting when discussing the significance of my research questions that the overall business structure and risks involved with CSAs is inherently different than those experienced by farmers’ market participants. While subsidies and nutrition assistance could benefit both consumer groups, investment in community-supported agriculture, while socially and environmentally sound, might prove economically inefficient if the farm experiences low yields or crop failure, particularly for low-income participants. Price structure is also a point of concern for these consumers as investment is typically required up-front, prior to the growing season (Cotter, Teixeira, Bontrager, Horton, & Soriano, 2017).

That said, based on the socioeconomic implications identified from the current research and discussed here, I agree with the majority of the literature reviewed in that further incentivizing local food purchases through state and federal subsidies and investment in local food systems may positively affect public health, foster social capital, encourage civic engagement, alter patterns of housing and community development, encourage job growth by retaining income within the local economy, and alleviate issues of

food affordability and accessibility for underserved communities. Further extending economic incentives for local food purchases to all consumers, regardless of income, might increase direct-marketing participation further. However, cost-benefit assessments would certainly be required as the economically efficient level of incentivization would vary by community. I would agree with the conclusions of previous papers, including Stickel and Deller (2014), Vitiello and Wolf-Powers (2014), Hughes and Boys (2015), and Winfree and Watson (2017) that the data currently available is inadequate to comprehensively access and verify the socioeconomic implications of CSAs and farmers' markets on consumers.

CONCLUSION

This paper examines academic literature and policy related to the socioeconomic effects of farmers' market and community-supported agriculture in the context of local food systems. This examination explores how economic incentives, including federal, state, and local government policy, potentially influence the socioeconomic implications of CSAs and farmers' markets for consumers, particularly in lower-income communities. This review of current literature related to local food systems and the socioeconomic impact of these two direct-marketing strategies reveals limitations to existing research and the conclusions drawn from it. In addition to assessing the socioeconomic implications of community-supported agriculture and farmers' markets for consumers, the research presented here sought to determine if either one or both of these direct-marketing strategies provide consumers with improved access to the local food system through subsidies, differential costs, social capital development, or some combination thereof. Within the context of this research, broad conclusions can be drawn with regard to the impact of farmers' market and CSA participation on consumer health, food security, social capital, civic engagement, income, housing, and general economic development indicators. The bulk of available research proposes positive correlations between increased consumer

participation in CSAs and farmers' markets and these socioeconomic factors, particularly with respect health benefits. Although relationships appear beneficial, caution should be used in extrapolating results to larger populations as the direction of causality may be unclear (e.g. do healthy people tend to participate in CSAs and farmers' markets more often than unhealthy people?). In addition, barriers to access continue to persist, including economic, cultural, and geographic restrictions. As the "local food movement" continues to gain momentum, there is a need for rigorous analytical examination of socioeconomic factors associated with direct farm sales within local food systems.

Although local food system management is drawing greater attention from policymakers, many of the presumptions which have been made regarding the socioeconomic implications associated with direct-to-consumer marketing of local food have not been adequately tested in terms of providing quantifiable, generalizable results. Some of these challenges are inherent to the behaviors and outcomes researchers are attempting to measure. However, as Stickel and Deller (2014) note, "practitioners and planners should be cautious when adopting policy to support the proliferation of local foods before replicable models of production are found to be economically viable". Further, advancing the success of farmers' markets and CSAs means determining how to identify and effectively address the exclusionary aspects of these programs, including affordability, location, and potential cultural barriers. I would agree, as Rice (2015) suggests, that only by attracting a diversity of community members can the aforementioned benefits of these programs be fully realized.

Consumer demand for local foods is associated with multiple factors, including support of local farms, mitigation of environmental concerns associated with industrial agriculture and non-local foods, and cultivation of social and cultural capital within communities. Federal, state, and local food policy addresses consumer demand primarily via nutrition assistance programs. However, production and supply are also addressed via policies such as the Local Food and Regional Market Supply or "Local FARMS" Act. Policy proposed as part of the 2018 Farm Bill, including the Local FARMS Act, acknowledges

the role of both consumers and producers in local food systems by seeking greater investment in local markets, including direct farm sale outlets such as farmers' markets and community-supported agriculture.

Examination of the socioeconomic implications of farmers' market and CSA programs for consumers yielded several policy implications related to local food systems and direct-to-consumer marketing. These include the need for government subsidies and investment in SNAP education and EBT payment processing for producers, community-based nutrition education, and expansion of local programs designed to augment federal nutrition assistance. In addition, maintaining the necessary funding for federal nutrition assistance programs such as SNAP and WIC in the 2018 Farm Bill and implementing supplemental legislation aimed at strengthening local food systems (e.g. Local FARMS Act) will provide greater local food opportunities for consumers. Although quantitative evidence to suggest that policies which support consumer access to local food systems improve social or economic welfare is limited, current literature largely portrays local food consumption as a means of addressing issues of diet and health, food insecurity, social welfare, and community engagement. However, since tax payer dollars fund investment in local food systems and nutrition assistance programs, comprehensive studies involving empirical analysis of cost-benefit data related to participation in farmers' markets and community-supported agriculture would likely benefit consumers.

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