

Article

Receiving Assistance and Local Food System Participation

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Abstract: A body of literature has noted that local food systems (LFSs) may not involve active participation by individuals with lower incomes. This is, in part, a function of racial and class hegemony, as well as physical and financial accessibility of LFSs. LFS institutions, such as farmers' markets, have been working to facilitate receipt of food assistance programs, such as the Supplemental Nutrition Assistance Program (SNAP). Charitable assistance programs, such as food banks, have also been actively working to engage in LFSs, for example, by making local foods available. However, little research has explored the role that receiving public or charitable assistance can play in influencing LFS participation. In this article, I utilize quantitative and qualitative data collected from across the state of Ohio to examine the relationship between receiving assistance and LFS participation for women, who remain predominately responsible for food provisioning in the U.S., including among those who participate in LFSs. Quantitative results suggest that receiving assistance can increase participation in LFSs. Qualitative data provides more nuanced information about the importance of food assistance for women who want to participate in LFSs, and suggest that it is essential that food cooperatives and farmers' markets are equipped to receive food assistance programs, such as SNAP, in order for women with lower incomes to participate in LFSs.

Keywords: local food systems; food provisioning; food assistance; gender; stratification

1. Introduction

In recent years there has been a rapid increase in local food system (LFS) participation [1]. LFSs generally involve farmers' who commit to sustainable food production, who are connected to consumers by spatial proximity and direct markets. Direct market mechanisms include farmers' markets, road-side stands, u-pick operations, and community-supported agriculture (CSA) programs. LFSs are considered counter to the industrialized, globalized, and increasingly corporate agriculture and food (agrifood) system, which is referred to by some in academic literature as the "neoliberal food regime" [2]. Proponents of LFSs assert that they allow greater revenue for producers, particularly those who wish to produce smaller scale agrifood products, which may be more beneficial for local economies, environmental well-being, and human health [1,3].¹

¹ There is not currently a consensus regarding how the "local" in LFSs should be defined [1]. Generally referring to geographic proximity, or the distance between the production and consumption of food, the 2008 Farm Act, which was adopted by the U.S. Congress in the 2008 Food, Conservation, and Energy Act, asserts that an agricultural food product can be considered local if it is distributed less than 400 miles from its origin, or within the state in which it is produced [1]. The concept of local is also used to talk about "beyond organic"—that is, new market arrangements between producers and consumers exemplified by direct-to-consumer arrangements, such as farm-to-institution, farmers' markets, or community support agriculture programs.

Despite the increasing support of and participation in LFSs, not everyone has been equally able to participate. People with lower incomes and non-white populations, in particular, have been noted for being underrepresented in LFSs [4–8]. Cultural and racial hegemony, as well as a lack of physical and financial accessibility, can all act as barriers to participation in LFSs. The food provisioning required for LFS participation can be labor intensive, and may also limit participation in LFSs, particularly for women, who remain predominantly responsible for this work [9].² This gendered responsibility for food provisioning often interacts with social class, employment status, partnership status, and having children, which, in combination, may further act to limit LFSs participation [10].

While people with lower incomes have been found to be underrepresented in LFSs, LFS programs have been actively working to make LFS participation more accessible. For example, many states have enacted programs to improve farmers' market access for people with lower incomes [1], and research suggests that some of these programs have successfully increased involvement by those with lower incomes in LFSs. For instance, Jones and Bhatia discuss the introduction of EBT terminals in farmers' markets, and the subsequent increase in money spent at farmers' markets [11]. Other research has examined the role that bonus buck programs have played in improving Supplemental Nutrition Assistance Program (SNAP, formerly known as food stamps) sales at farmers' markets in low income areas [12]. Still other research has examined the effectiveness of different ways of accepting food assistance programs. For instance, Buttenheim et al. evaluated the effectiveness of point-of-sale (POS) terminals on the use of SNAP benefits, rather than a single, market-operated terminal [13]. They found that the individual POS terminals were associated with an increase in monthly SNAP sales. Importantly, much of this research has focused on how the introduction of SNAP at farmers' markets sustains farmers' markets, particularly those in lower income communities [14].

Other forms of LFS engagement have also worked to improve engagement by those with lower incomes. For instance, in addition to making LFS institutions, such as farmers' markets, more accessible via acceptance of federal food aid programs, community gardens are also used as a tool to increase local food availability in lower income communities [15]. Further, charitable assistance programs, such as food banks, have also worked to increase the amount of fresh and local foods available for participants [3,16].

This research has provided important information about how institutions are working to make LFSs more accessible to people with lower incomes. However, despite the fact that social class has been found to potentially limit LFS participation, little research has examined the role that food assistance programs may play in influencing LFS participation. It is the aim of this article to address this limitation in the literature.

In the remainder of this article, I review literature related to the history and importance of public and charitable assistance programs. I then discuss the ways in which such programs may be particularly beneficial for women. I frame this research through a feminist perspective, which emphasizes the unequal distribution of labor in food provisioning within traditional households and the ways in which food provisioning, particularly for women engaged in LFSs, can be physically, mentally, and emotionally labor intensive. I further articulate the ways in which having lower incomes may exacerbate this labor, and the subsequent negative physical and mental outcomes. From there I describe the methods I used to collect and analyze data. I then present the results of the analysis. Finally, I discuss the findings and make some policy recommendations.

The History and Importance of Public and Charitable Assistance Programs

Public and charitable assistance programs have long played a role in providing for those suffering from food insecurity in the United States (US). For example, SNAP was designed in the 1930s by

² Food provisioning refers to the work involved in feeding families, and includes planning meals, procuring food, preparing meals, and cleaning up from preparing food for consumption.

economists in the United States Department of Agriculture (USDA) to act as a form of cash to purchase food products. The aim was to help households “fill the gaps between income . . . and household food needs” ([17], p. 69). Public assistance programs continue to be an important safety net for low-income households in the US. Research has found SNAP, in particular, is effective in reducing food insecurity [18,19]. As Coleman-Jensen et al. (2013) note, “Food and nutrition assistance programs of the U.S. Department of Agriculture (USDA) increase food security by providing low-income households access to food, a healthful diet, and nutrition education” ([20], p. 7). Research has also found that decreasing public food assistance can decrease food security [21].

Other food safety nets also work to fill resource gaps for households in the US. Private charities have long provided services like food pantries, food banks, and soup kitchens. Prior to the 1980s these programs were small in scale and scope, but the recession of the 1980s, coupled with a steep decline in social spending, led to a dramatic expansion of private charities [12]. During the recent Great Recession, private charities similarly played an important role in aiding households suffering from food insecurity [22,23]. However, research has found that private charities are less effective in alleviating food insecurity, compared to public programs like SNAP ([24], p. 12).

Public assistance programs can potentially alleviate not only hunger, but also reduce other social and individual problems. In addition to being essential for household food budgets for many low income households, SNAP can be important for the economic well-being of low income communities [17]. Further, research has found that public assistance can reduce household poverty and improve children’s academic behavior and physical well-being [25,26].

2. The Importance of Food Assistance for Women

This research is specifically focused on examining the relationship between receiving public or charitable assistance and LFS engagement for women. Feminist scholarship and theory have long prioritized the experiences of women given the historical legacy of gender inequality in the US, and beyond. There are important reasons for focusing on the experiences of women in this research. First, research has found that women remain predominantly responsible for food provisioning not only in the US public, broadly speaking, but also amongst those who engage in LFSs [9]. Second, utilizing a ‘doing gender’ perspective informs our understanding of the ways in which women are socialized to engage in the gendered practice of food provisioning. The term ‘doing gender’ refers to the ways in which gender, which is a socially-constructed status, is practiced by individuals in their everyday activities. According to West and Zimmerman gender is a “routine, methodical and recurring accomplishment,” and that “the doing of gender is undertaken by women and men whose competence as members of society is hostage to its production” ([27], p. 126). They assert that ‘doing gender’ involves routine activities that are embedded in everyday interactions ([27], p.125). One of the primary ways that women ‘do gender’ is through food provisioning [28]. While men may occasionally help out with food provisioning, women remain predominantly responsible for this labor [29], and this is important because the labor of food provisioning, particularly for those engaged in LFSs, can be more physically, emotionally, and mentally laborious [4,5,30]. Being responsible for food provisioning and enacting this gendered practice has important implications for women’s well-being, which receiving food assistance may help address.

Over the past few decades, a growing body of scholarship has examined the ways in which responsibility for food provisioning can both positively and negatively impacts women’s lives.³ In their findings, work and family scholars have documented that responsibility for time-inflexible or low-schedule control housework can correlate with psychological stress, particularly for those who work in paid employment [31–34]. Food provisioning is the most dominant form of time-inflexible or

³ Much of this research has focused on women given that food provisioning remains a highly gendered task [35].

low-schedule control housework, and feminist food studies scholars have found that responsibility for food provisioning can correlate with experiencing stress [35–39].

Scholars have found that food provisioning is in part stressful due to women's increasing employment in paid labor, and the subsequent struggle of balancing multiple roles [31,38,39]. Scholars have also found that women often feel stress and anxiety with the labor of food provisioning because of normative ideas about how food provisioning should occur; women often feel guilty when they are unable to meet food provisioning ideals, which are often socially prescribed [35,37,40]. This is particularly important to note given increasing national concerns with obesity and advocacy for 'healthy' eating. Through food provisioning women enact and maintain identity and provide care and nourishment for those they love [35,41,42]. However, food provisioning can also be stressful as women aim to engage in gendered practices to enact identity and show care [41,43].

These multiple layers of stress could be experienced more acutely among women with lower incomes. Cairns, Johnston, and Baumann assert that the gendered performance of food provisioning should be "understood within the context" of class position, "particularly in relation to a larger US sociocultural context marked by sharp income inequalities and significant (but often unacknowledged) class divides" ([28], p. 596). This assertion is supported by scholarship that demonstrates that negative emotions with food provisioning have been found to be worse for women with lower incomes based largely on issues of time, and physical and financial access to food [35,39]. In addition, women with lower incomes are less able to achieve normative ideals of food provisioning, enact and maintain identity through food provisioning, and provide care and nourishment for their loved ones, adding to the potential stresses of food provisioning [44]. Further, research has found that women often make trade-offs between their preferred food provisioning practices and the constraints they experience, and using convenience foods is a common strategy that can minimize the physical and mental labor of food provisioning [45,46], potentially even for women who would prefer to engage in LFSs.

Stress with food provisioning can impact an individual and society in many ways. For example, scholars have documented that stress with housework correlates with an increased likelihood of negative mental and physical health conditions, such as depression or cardiovascular disease [24,32,47]. Further, as food provisioners with lower incomes experience heightened stress, as well as declining physical and mental well-being, they are potentially less able to engage in the types of activities that might help them achieve greater financial stability, and are less likely to support their families, nutritionally and otherwise, in ways that benefit households and society more broadly.

Collectively, this literature suggests that food provisioning is a gendered activity that can be stressful, particularly for women with lower incomes, and that stress with food provisioning can lead to a number of negative mental and physical outcomes. This literature also suggests that LFS engagement is increasing, but that barriers exist that prevent some people, particularly individuals with lower incomes, from participating. The above literature also suggests that public assistance programs can help alleviate food insecurity. Importantly, food assistance can also alleviate some of the stress with food provisioning, potentially for those who would like to engage in LFSs. Poppendieck has noted that food assistance programs can "play an important role in preserving adult roles, and helping those with lower incomes maintain some of their roles, such as that of shopper" ([17], p. 240). I contend that, despite the fact that applying for public assistance programs such as SNAP can be onerous and complicated [17,35], which can deter people and add labor to the lives of those with lower incomes, receiving public assistance not only improves food security but further could increase engagement in LFSs for individuals with lower incomes, and decrease the stress they experience with this labor.

Proposed Hypotheses

Based on the above background literature, I have developed the following hypotheses:

H1: Receiving public or charitable assistance will be positively associated with engagement in LFSs.

H2: However, hypothesis 1 will only hold if there are available LFS opportunities that accept food assistance programs, like SNAP.

3. Data

In this project, I utilize a mixed-methods approach, drawing from both quantitative and qualitative data collection and analyses. Mixed-methods research can maximize the strengths and minimize the weaknesses of these different approaches, providing greater robustness in research [48]. In addition, as Creswell notes, utilizing a mixed-methods approach can help a study to be “fuller and more comprehensive” ([49], p. 150). In this study, quantitative data was gathered in order to gain a macro level understanding of the patterns that were occurring with regards to food provisioning and LFS engagement. Qualitative data was then gathered to provide greater depth of knowledge regarding this relationship, particularly for women. Below, I provide greater detail about how data was collected and analyzed.

3.1. Quantitative

For the quantitative portion of this paper data was drawn from the 2012 Ohio Survey of Food, Agriculture, and Environmental Issues. This is a biennial survey of urban and rural residents in the state of Ohio. The survey was designed and administered by faculty, graduate students and staff at the Ohio State University. The survey was funded by the Ohio State University Extension, the Ohio Agricultural Research and Development Center, North Central Sustainable Agriculture Research and Education, and the College of Food, Agriculture and Environmental Sciences at the Ohio State University. Data for the 2012 Ohio Survey was collected throughout the spring of 2012. A random sample was generated by Experian (Costa Mesa, CA, USA), a private firm, and the sample consisted of a statewide sample of 2000 Ohio households, which was selected and stratified according to metropolitan core and non-metropolitan county status, as well as a sample of 1000 residents in specific zip codes in Ohio known to have active local food systems engagement. Thus, the combined sample size was 3000. We weighted the data for this study in order to account for the disproportionate sampling of certain zip codes and counties; this ensured that the data appropriately represents the characteristics of the state of Ohio. Weighting uses known estimates of the total population to adjust the final results [50].

A modified version of Dillman’s Tailored Design Method was used to guide the data collection methodology [51]. In total, 771 surveys were returned, with a response rate of 28%. Due to systematic missing data on a number of surveys, the total sample size for the survey was 703. For the purposes of this article, men were removed from the survey. The final sample size for this article was, therefore, 396. Table 1 displays the demographics of survey respondents, and compares them to the 2010 American Community Survey (ACS). Data analysis was conducted with Stata/IC 13.0 (StataCorp, College Station, TX, USA), a statistical software package, using a regression model with robust standard errors.

Table 1. Demographic comparison of Ohio population and survey respondents.

	Ohio (%)	Respondents (%)
Sex		
Male	49	44
Female	51	56
Race/Ethnicity		
African American	12	4
Asian	2	1
Hispanic/Latino	3	1
Native Am/Am. Indian	0	1
White	83	92
Other	2	1

Table 1. Cont.

	Ohio (%)	Respondents (%)
Educational Attainment		
% high school grad or higher	87	96
% bachelor's degree or higher	24	40
Married-couple family households	49	62
Households with individuals under 18 years old	32	27
Households with individuals 65 years and over	25	27
Home Ownership		
Owner-occupied housing units	69	85
Renter-occupied housing units	31	13
Household Income		
Lower than \$10,000	5	4
\$10,000 to \$49,999	36	43
\$50,000 to \$99,999	37	33
\$100,000 or more	22	20
Employment Status		
Employed	65	56
Unemployed	35	44

Measurement

This project aims to understand the relationship between receiving public or charitable assistance and engaging in LFSs. Below, I describe how the dependent, independent and control variables were measured. Descriptive statistics for all variables can be found in Table 2.

Table 2. Descriptive statistics for quantitative analysis.

	Obs	Mean or %	SD	Min	Max
LFS engagement	396	6.9	2.3	2	10
Public/charitable Assistance	396	0.1	0.3	0	1
Yes (1)	50	12.6%			
No (0)	346	87.4%			
Age	396	55.9	15.8	21	91
Partnership Status	396	0.66	0.48	0	1
With partner (1)	260	65.7%			
Not with partner (0)	136	34.3%			
Education	396	14.6	2.8	7	25
Race and Ethnicity	703	0.6	0.24	0	1
White (0)	368	92.9%			
Non-White (1)	28	7.1%			
Employed	396	0.54	0.50	0	1
Employed (1)	214	54.0%			
Not Employed (0)	182	46.0%			
Presence of Children 0–4	396	0.1	0.4	0	2
Presence of Children 6–18	396	0.4	0.8	0	4
Income	396	4.4	1.8	1	7
Food System Concern	396	23.6	4.5	5	28
Environmental Concern	396	1.4	0.5	1	2
Human Health Concern	396	12.2	1.9	3	15
Food Price	396	6.1	1.1	1	7

LFS: local food system; Obs: observations; SD: standard deviation.

Dependent Variable

The dependent variable used for the regression analysis aimed to capture the degree to which respondents engage in LFSs. To measure LFS engagement, I created an index utilizing two survey questions. The index was constructed from questions that asked about the frequency of food provisioning behaviors related to local food purchases. Respondents were asked, “Thinking about this past year (2011), how often did you engage in the following activities?” Two items in this series of questions were used to assess LFS participation:

- (a) Buy foods that are locally grown or produced;
- (b) Attend a farmers’ market.

Response categories ranged from (1) never, to (5) more than 10 times. Confirmatory factor analysis confirmed that the individual items related to purchasing local foods were interrelated and Cronbach’s alpha further confirmed that the reliability of combining these items into a scale was acceptable (alpha reliability = 0.77). The measure “Frequency of Purchasing Local and Shopping via Direct Markets” has a range of 2 to 10, with low scores representing little to no engagement in LFSs and high scores representing active participation in LFSs. The mean for this variable was 6.9, with a standard deviation of 2.3.

Independent Variable

The independent variable of interest used in this analysis aims to capture the level of public charitable assistance households have received. Respondents were asked, “Some Ohio families have needed to make financial adjustments to family living. In the past year, have you or any family members in your household made the following adjustments: Used public/charitable assistance (such as food bank) to meet needs?” Respondents were directed to either answer yes or no. This variable was recoded so that no = 0 and yes = 1. The mean for this variable was 0.1, with a standard deviation of 0.3.

Control Variables

There were a number of control variables included in the model, as there are a number of factors which have been identified as being associated with engagement in LFSs. First, I utilized a number of standard socio-demographic variables, including age, education level, and race and ethnicity. In the model, I also controlled for partnership status, presence of children, and employment status, which all may influence the ability of women in particular to engage in LFSs [10].

Human Health Concern and Environmental Concern. The types of food individuals purchase can also be influenced by concerns with human nutrition and the environment [52,53] and, thus, could influence LFS engagement. For this reason, I included a measure capturing human health concern. In order to measure human health concern I combined three survey items. In the survey respondents were asked to “[p]lease indicate your level of agreement with the following statements related to the food you eat and your health: (1) I consider myself health conscious; (2) I am interested in using food to maintain health; and (3) I usually look for health information when I buy food products.” Response categories ranged from “strongly disagree” (1) to “strongly agree” (5). According to factor analysis these items were interrelated and the reliability of combining them into a scale was acceptable (alpha reliability 0.78). This variable had a range of 3 to 15, a mean of 12.2, and a standard deviation of 1.9. I also included a measure of environmental concern and food consumption. Respondents were asked “Have you engaged in the following community and/or environmental activities in the last year? Purchased food because it was grown in an environmentally friendly way.” Response categories were (1) yes and (2) no. The variable had a mean of 1.4 and a standard deviation of 0.5.

Food System Concern. A number of other factors may also motivate LFS participation, including those related to food system concerns. For this reason I created an index which could account for concern with food safety, concern with growth hormones in food, concern with genetically modified

foods, and concern with pesticide residue. Factor analysis confirmed these items were interrelated and the scale reliability coefficient was acceptable ($\alpha = 0.87$). The variable had a mean of 23.6 and a standard deviation of 4.5.

Food Price. Finally, as noted in the above literature review, concern with price could motivate people away from LFS engagement. For this reason, I also included a measure capturing the degree to which individuals are concerned with the price of food. Respondents were asked “Consumers must consider a number of factors when making food purchases. Please rate on a scale of 1 to 7 (1 = not important, 7 = very important) the importance of the following factors you consider when purchasing food. The price of the food item.” The variable had a mean of 6.1 and a standard deviation of 1.1.

3.2. Qualitative

For the qualitative portion of this paper, data was drawn from semi-structured interviews with 43 women across the state of Ohio. A range of sources were used to advertise the project and identify participants, including farmers’ markets, the listserv of the Ohio Ecological Food and Farming Association (OEFFA), a statewide organization promoting sustainable agriculture practices in Ohio, and word of mouth. A snowball technique was then utilized by asking respondents to suggest other potential research participants. When women expressed interest in the study, I asked about their agrifood system concerns, engagement in alternative agrifood practices, and socio-demographic characteristics to ensure that the sample adequately represented the population of interest. Therefore, respondents were diverse with regards to age, socio-economic status, employment status, partnership status, presence of children, geography, and race and ethnicity. In addition, the respondents all expressed concern with the agrifood system, and a desire to engage in LFSs. Further, their level of engagement with LFSs varied, which allowed me to examine how other factors may also influence this engagement, such as income, age, employment status, geography and race.

All subjects gave their informed consent for inclusion before they participated in the study. Interviews were conducted at locations that were convenient and comfortable for participants. All interviews, which lasted between 50 and 150 min, were audio recorded and transcribed verbatim. The interviews were then coded and categorized. In the analysis I utilized MaxQDA (VERBI GmbH, Berlin, Germany), a computer-assisted qualitative data analysis computer program. Such programs can help with the process of identifying and mapping qualitative data, and can provide increasing accuracy and reliability in textual analysis [54,55].

4. Results

4.1. Quantitative Results

Table 3 presents the regression model that assesses the relationship between receiving public or charitable assistance and engagement in LFSs. The quantitative results indicate that receiving public or charitable assistance is significantly associated with an increase in LFS participation (coefficient 1.3). In other words, receiving public or charitable assistance increases the likelihood of respondents participating in LFSs.

A number of other variables were also significant in the model. There was a positive and statistically significant relationship between having a higher income and engaging in LFSs (coefficient = 0.33). This suggests that having a higher income increases your likelihood of engaging in LFSs. This is consistent with previous literature that has suggested that LFSs are more accessible to those with higher social class [4–8]. There was a negative and statistically significant relationship between not being employed and engaging in LFSs (coefficient = -0.67). This finding is also consistent with previous literature, described above, that suggests that having additional time may influence the likelihood of LFS engagement [9,10]. Finally, there was a negative and statistically significant relationship between expressing environmental concern and engaging in LFSs (coefficient = -1.3). This suggests that respondents expressing environmental concerns are more likely to engage in LFSs.

Table 3. Regression model results on engagement in local food systems.

Variables	Engagement in Local Food Systems
Receipt of Public/Charitable Assistance	1.3 ***
Age	−0.01
Education	−0.03
Race & Ethnicity	−0.64
Partnership Status	−0.33
Presence of Children, 0–4	−0.32
Presence of Children, 5–18	−0.07
Income	0.33 **
Employed	−0.67 *
Human Health Concern	0.08
Environmental Concern	−1.3 ***
Food System Concern	0.01
Food Price	−0.05
Constant	7.6
Observations	394
R-squared	0.19

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

4.2. Qualitative Results

The qualitative data collected provide greater insight into the relationship between receiving public or charitable assistance and engaging in LFSs. It is first useful to understand the ways in which socio-economic status related to LFS participation. According to the qualitative data, socio-economic status can limit participation in LFS for some women with lower incomes, which is often attributed to not having geographic and financial accessibility. Among my respondents, women with lower incomes were less likely to participate in CSAs, shop at farmers' markets, or shop at locally-owned food cooperatives because of the cost involved. One respondent with a lower income stated that, "I don't participate in CSA. CSA is too inaccessible to people with lower socioeconomic income that don't have \$500 at the beginning of the season to put down on money. On a season's worth of food." Another woman stated that, "We were part of a CSA, which we're not part of currently, but that's mostly a money situation. We are on, you know, a student budget. We're on food stamps and the [local farmers' market] they don't, you know take EBT [laughs]." Natural food cooperatives were also viewed as inaccessible because of the expense. One respondent stated that, "I like the idea of the co-op. I think it's great because they are targeting local food sources and stuff like that for their fresh produce. But it's so expensive." At times, women also viewed farmers' markets as too expensive. For example, one woman told me that she gets frustrated with farmers' markets, stating that "they're so expensive, and I feel like this isn't fair, only a certain number of people can afford that, and in a perfect world I would, everybody should have access to healthy food. So, sometimes I just, I lost my enthusiasm for farmer's markets. I don't go anymore." Organics, while not always an attribute associated with local food systems, was also identified as being financially out of reach for some. As one woman stated, "Well, there are times when I'll look at the price of something that is organic or whatever and decide that I don't need it."

Other women viewed their socio-economic status as a constraint, but this did not fully limit their participation in LFSs. This was because some women with low or middle incomes used a range of strategies to manage or overcome the constraint of money, and still provision food that aligned with their agrifood values. The strategies that were used were often more physically, mentally, or emotionally laborious, and at times involved making compromises. For example, women would develop a set of priorities, such as purchasing certain products local and organic and others conventional. This process often involved compromising values because of budget constraints. Women stated things such as:

Well, it is always this complicated imprecise mental arithmetic of like priorities, like now at Kroger [a large grocery store chain] for the eggs they have like three choices there is the normal factory farm eggs and they have the cage free that are a dollar more and then for 2 or 3 dollars more they have the cage free and grain fed, so I have decided apparently to care if chickens live in cages or not but not about what they eat.

Or,

I have kind of a system I guess for produce or vegetables it is sort of arbitrary but for dairy or eggs and I rarely buy meat but for dairy and eggs I really exclusively stick to local, like buying [local] milk and I get farmers' market eggs, like I almost never buy eggs in Kroger—I used to buy Kroger milk when I didn't have food stamps but now I splurge on the nicer milk, because I have excess money so I feel like I can do that, because it is really important to me.

Women would also use physical labor to offset the financial costs of desirable foods. For example, in order to receive free or subsidized local food, a woman with a lower income who had three small children would volunteer once a week at a local farm. Similarly, another woman volunteered once per week at a farm that operated a CSA; this labor then subsidized her cost of a weekly share. Another strategy commonly used by women with lower incomes was using less processed foods. This, importantly, involved trading time and labor for cost savings.

All women with lower incomes who desired to engage in LFSs asserted the importance of food assistance programs for their life in general, but more specifically for their ability to engage in LFSs. For these women with lower incomes, SNAP, in particular, was an important tool for dealing with the constraint of money. A few women I spoke with said that once they got on SNAP, they were able to purchase foods that met their food values, which they had been unable to do before. Since SNAP could only be spent on food, and because they had a sufficient amount of SNAP income, they were able to purchase local and organic foods. As one woman stated, "[food stamps] have been quite liberating for me." Another woman stated that, "the food stamps can't be used for anything else [so] it does allow me to give myself a break on that, whereas with my own money I could always have an excuse."

A few women were just over the income limit for SNAP, and they spoke about how SNAP would be a useful tool for them to address their agrifood concerns in their food provisioning. As one woman stated,

I can't afford it! I can't afford it, there's no access to [local foods], and again, it gets back to the food system sucks. [. . .] I wish I had better resources. I wish it was more accessible. The amount of resources I have shouldn't put me in a position...I'm one of those folks that, you know, my bills are...the amount of money that I make is about a \$100 more than what qualifies you for food stamps. My bills are \$700 more than what I actually bring in. So how do you make up the gap?

SNAP, as well as other programs, such as the Women Infant and Children Farmers' Market Nutrition Program (WIC FMNP) coupons, were only a useful tool, however, if there were direct markets (such as farmers' markets), natural grocery stores or food cooperatives that accepted them. Some women who were on SNAP or who received WIC FMNP coupons lived in communities where the farmers' market and the natural grocery store did not accept these forms of payment. For these women, food stamps were not a liberating tool, but rather a further constraint. "We're on food stamps and the farmers' market, the food coop, they don't, you know they don't accept that stuff, and since we have to kind of keep our food budget, like, that stuff, we're not able to participate as wholly as we would like to be able to." If these women wanted to engage their values by shopping via direct markets or at the local food cooperative, they had to allocate some of their non-food budget.

5. Discussion and Conclusions

The aim of this article was to examine the relationship between receiving assistance and engaging in LFSs. I hypothesized that receiving public or charitable assistance would be positively associated with engaging in LFSs. In all, the analyses presented here suggest that food assistance can be an important tool for women who aim to engage in LFSs. The quantitative results indicate that there is a positive and statistically significant relationship between receiving public or charitable assistance and engaging in LFSs. The qualitative results provide further evidence of this relationship, by illustrating how this is an issue of particular importance for women who have lower incomes, and providing greater detail regarding women's experiences with food provisioning while receiving food assistance. Women with lower incomes who received assistance consistently reported that receiving assistance improved their ability to engage in LFSs. In fact, for some women, assistance not only enabled them to participate in LFSs, but they had more freedom to do so, relative to women who were just above the income limits for receiving benefits like SNAP. As opposed to those who may be just above the income limit for these programs, women who receive assistance cannot spend these resources on anything aside from food. Therefore, some women reported that they have more freedom in spending these resources, relative to women who experience finances as a barrier to engaging in LFSs, but who do not receive assistance. The money they receive from SNAP or WIC cannot be spent on anything else, thus they are not forced to redistribute these resources to other needs. Rather, they are able to use these resources to procure foods, and often foods that align with their food values. This appeared to be particularly the case for those who were single, and were not attempting to stretch food assistance for multiple family members. Thus, for these women receiving assistance was an important tool in 'doing gender' and engaging in LFSs; in other words, receiving assistance enabled these women to engage in gendered norms in a way that also fulfilled their desire to engage in LFS practices. Further, receiving assistance also enabled some women to avoid some of the strain of food provisioning.

However, as predicted, women reported that receiving public or charitable food assistance is only useful for improving LFS engagement if LFS institutions are set up to receive various forms of assistance. For instance, if the local farmers' market or food cooperative is not set up to receive SNAP or WIC FMNP coupons, then receiving assistance likely does not impact LFS participation. The qualitative data suggest that this can be frustrating for women with lower incomes who want to engage in LFSs. For many with lower incomes, their food budget is, or is almost, entirely based on what they receive from assistance programs. Thus, if local opportunities do not accept SNAP, for instance, they are completely shut out from engaging in these programs. This may create greater strain for women who receive assistance and want to engage in LFSs, but are prevented from doing so because of the ways in which they pay for food.

While this study aimed to gather as rich and accurate data as possible, this project is not without limitations. In this study there is particular concern with the ability to generalize from the data collected. For both the quantitative and qualitative data collected, data collection was limited to the state of Ohio. Further, while the qualitative sample was purposive, attempting to replicate the socio-demographic characteristics of the state of Ohio, it was not random. It is, therefore, difficult to extrapolate these findings to the broader population of LFS participants in Ohio, and beyond. In all, while the findings presented here potentially speak to the experiences of women who are engaged in LFSs across the United States, this cannot be assumed. In addition, the survey item asking about engagement in assistance programs could have been improved by providing additional examples of assistance.

In conclusion, the data presented here suggests that food assistance programs can be important tools for women who want to engage in LFSs. Food assistance programs can help women to engage in LFSs via their labor as food provisioners, which, as noted in the above literature review, may be beneficial for the economic and ecological well-being of their communities, for the health of their families, and for their personal well-being, as well. This research, therefore, provides some support for activities that aim to ensure that LFS institutions, such as farmers' markets, CSA programs, and

food cooperatives, are able to receive SNAP, and other forms of assistance, which can help to relieve the financial stress of providing food for families. A number of organizations are actively working to promote such programs. Such organizations include the USDA, which has been providing financial and technical assistance for enabling farmers' markets to receive SNAP for a number of years [56]. Another program worthy of continued, and increased, support is the Farmers' Market Nutrition Program (FMNP), which provides vouchers for women who are pregnant or with young children (FMNP WIC program), as well as seniors (FMNP Senior program). However, many states do not currently participate in these programs [57]. This research provides some support for continuing and expanding these programs. Finally, this research also provides some support for the continued distribution of fresh and local foods via charitable assistance programs. While these programs have been found to be less effective in addressing food insecurity [58], they nevertheless can provide benefits to women who are working to feed their families while also engaging in food provisioning practices that fit within their ideals.

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