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## Food System Resilience in the Face of COVID-19: A Study of Maine's Food Sovereignty Movement

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# Food System Resilience in the Face of COVID-19: A Study of Maine's Food Sovereignty Movement

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A thesis submitted to the faculty of the Environmental Studies Program in  
partial fulfillment of the graduation requirements for the Degree of Bachelor  
of Arts with honors in Environmental Studies

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## **ABSTRACT**

As the COVID-19 pandemic has exposed the vulnerabilities in the United States' industrialized food system, the need for a more resilient alternative is stronger than ever. In Maine, food sovereignty - the right of people to determine their own food system - has been enacted at the local level through the adoption of the Local Food and Community Self-Governance Ordinance (LFCSGO). Using unstructured interviews with leaders of Maine's food sovereignty movement conducted prior to the pandemic, this study aims to link food sovereignty in Maine to the concept of food system resilience. Participants defined food sovereignty specifically in relation to the LFCSGO and they emphasized its implications for food safety, community development, and local democracy. The vision promoted by Maine's food sovereignty movement connects directly to discussions of food system resilience in existing scholarship, as well as to responses to food system failures during the pandemic. Ultimately, food sovereignty presents a potential path to increased food system resilience in Maine, in the face of both the current crisis and the ongoing threat of global climate change.

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## TABLE OF CONTENTS

ABSTRACT.....	i
ACKNOWLEDGEMENTS .....	ii
INTRODUCTION .....	1
METHODS .....	7
RESULTS .....	9
The Rise of Food Sovereignty in Maine .....	10
Food Sovereignty as Freedom from Unfair Government Regulation .....	12
The Value of Direct Food Exchanges .....	14
Why Maine? .....	17
DISCUSSION.....	19
Limitations .....	23
CONCLUSION.....	25
REFERENCES .....	26

## INTRODUCTION

With the COVID-19 pandemic shutting down global supply chains, it is likely that the crisis has and will continue to have a significant impact on the world's food systems. In places in the United States, shelves in grocery stores are empty of essential food items as people under stay-at-home orders stock up, large food processors are closing because workers are infected or staying home to protect themselves from infection, and crops are being left to rot in fields due to disruptions in demand, processing, and transportation (Poppick, 2020; Zarroli, 2020; Sy et al., 2020). These impacts seem to reveal the fragility of our mostly industrialized food system in the United States. Local and regional food systems could serve as a way to generate food system resiliency, both now in a time of pandemic, and generally as we continue to combat the threat of global climate change.

What follows is a study of Maine's food sovereignty movement conducted before the COVID-19 pandemic reached the United States. I interviewed leaders and participants at the center of Maine's movement in order to gather personal narratives, ideas, and feelings about how food sovereignty has been enacted in Maine. While the original project objective was to analyse the relationship between the movement in Maine and the global food sovereignty movement, I shifted my focus after I recognized that there are implications for the current public health crisis that should be investigated. In light of the disruptions seen today, could food sovereignty, as enacted in Maine, increase the resilience of Maine's food system?

Food system resilience can be understood as the "...capacity over time of a food system and its units at multiple levels to provide sufficient, appropriate and accessible food to all, in the face of various and even unforeseen disturbances." (Tendall, 2015, p. 19). In their analysis of the resiliency of the industrialized agriculture system in North America, Rotz and Fraser (2015) conclude that the system is vulnerable, due to decreased diversity of crop varieties and agricultural systems, a reduction in the number of farms but an increase in farm size, the consolidation of the food processing industry and increased trade, and a lack of "decision-making autonomy" in the food system. They define decision-making autonomy as "the degree of control that producers have over production as well as their ability to observe and respond to feedback mechanisms" (p. 3). In other words, in the current industrialized system, when power

lies with a few large agribusinesses, producers are less able to change their production scale or practices based on economic or environmental stressors.

The food sovereignty movement arose out of a context of industrialized agriculture, neoliberal trade agreements and food policies, global supply and consumption chains, and environmental degradation, where food production is a site of intense ecological, social, and political struggle (Holt-Giménez and Patel, 2009; Andrée et al., 2014). With access to food increasingly being framed as a social justice issue and a human right, food sovereignty emerged as a paradigm challenging the industrial food system all over the world (McMichael, 2014; Wittman, 2011). Food sovereignty advocates for agricultural and social transformation from the grassroots level and, most importantly, from small-scale food producers themselves (Rosset and Martinez-Torres, 2012; Patel, 2009; Wittman, 2011).

The term “food sovereignty” was coined in 1996 by La Via Campesina, an international movement of peasants, smallholder farmers, landless people, indigenous people, and migrant agricultural workers (La Via Campesina, n.d.). In 2007, organizations from around the world, including La Via Campesina, gathered in Nyéléni Village in Selingue, Mali for the International Forum for Food Sovereignty, and produced the Nyéléni Declaration, which defined food sovereignty and outlined the principles and actions to which the participants were committed. According to the declaration, food sovereignty is:

“...the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems. It puts those who produce, distribute and consume food at the heart of food systems and policies rather than the demands of markets and corporations... Food sovereignty prioritises local and national economies and markets and empowers peasant and family farmer-driven agriculture, artisanal fishing, pastoralist-led grazing, and food production, distribution and consumption based on environmental, social and economic sustainability. Food sovereignty promotes transparent trade that guarantees just income to all peoples and the rights of consumers to control their food and nutrition. It ensures that the rights to use and manage our lands, territories, waters, seeds, livestock and biodiversity are in the hands of those of us who produce food” (Nyeleni Declaration 2007, p. 9).



Among U.S. states, Maine is leading on food sovereignty, particularly through local and state-level legislation. In 2011, four towns in Hancock County – Sedgwick, Blue Hill, Trenton, and Penobscot – were the first to pass municipal food sovereignty ordinances (Labbé-Watson, n.d.). Titled the Local Food and Community Self-Governance Ordinance (LFCSGO), the municipal law supports self-determination in food rules, family farms and sustainable agriculture practices, the health and well-being of the local community, and rural economic development. The ordinance was written by Local Food Rules, one of the two groups at the center of organizing for food sovereignty in Maine. Echoing the language of the Nyéléni Declaration, the LFCSGO asserts that “[a]ll individuals have a natural, inherent, and unalienable right to acquire, produce, process, prepare, preserve, and consume the food of their own choosing for their own nourishment and sustenance”; and explicitly rejects state and federal policies that “...unnecessarily impede local food production and constitute a usurpation of our citizens’ right to foods of their choice” (“Local Food and Community Self-Governance Ordinance” [LFCSGO], n.d.).

In addition to asserting a town’s right to food sovereignty, the LFCSGO exempts producers of food “...intended for direct producer-to-consumer transactions” from state licensure and inspection; where this type of transaction is defined as “[a]n exchange of local food within a local food system between a producer or processor and a patron by barter, trade, or purchase on the property or premises owned, leased or rented by the producer or processor of the local food; at roadside stands, fundraisers, farmers’ markets, and community social events; or through buying clubs, deliveries or community supported agriculture programs, herdshare agreements, and other private arrangements” (LFCSGO, n.d.). In other words, producers who sell their products directly to their local communities are no longer required to be regulated by the State of Maine. As of the spring of 2020, 79 municipalities in Maine have adopted the LFCSGO (see Figure 1).

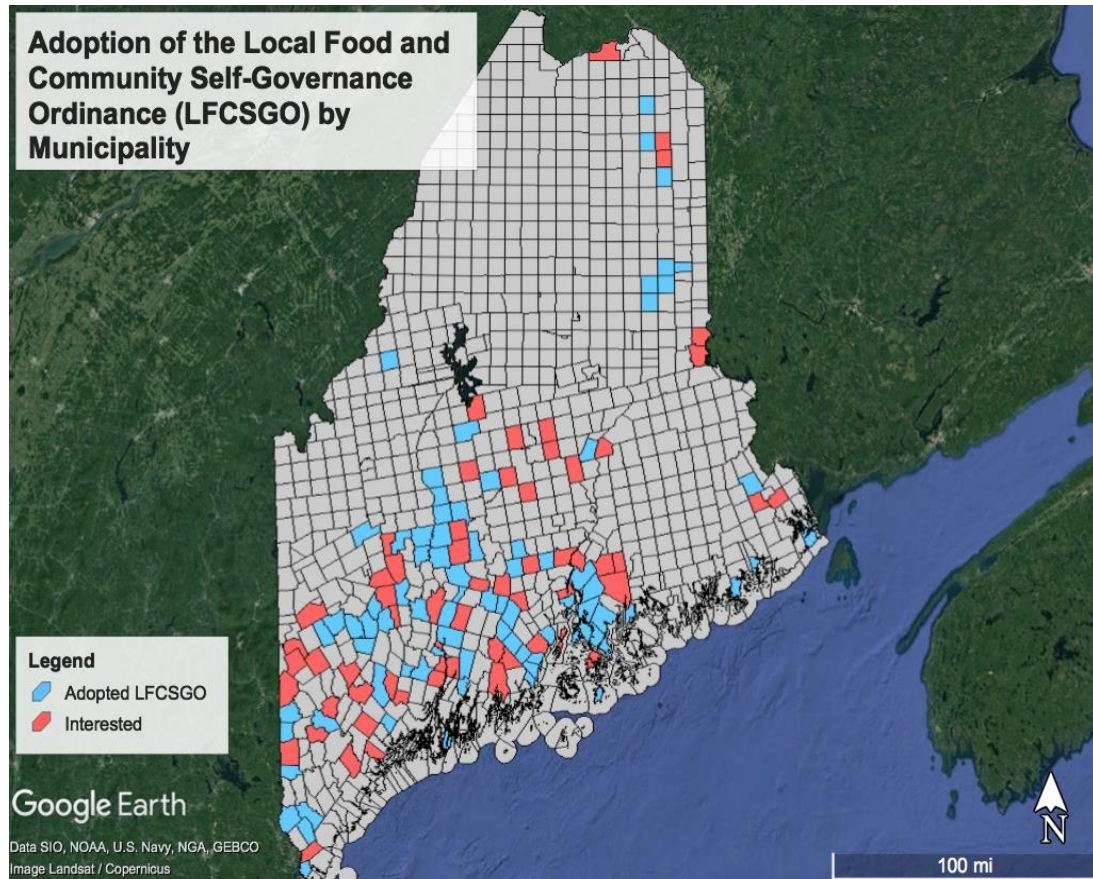


Figure 1. Map showing adoption and interest in adoption of the LFCSGO by municipality, according to Local Food Rules.

In addition to Local Food Rules, the other organization leading Maine's food sovereignty movement is Food for Maine's Future (FMF). FMF was founded in 2006 and initially worked on various campaigns, such as genetic engineering and farm labor (FMF, n.d.). After the passage of the first four ordinances, FMF decided to prioritize food sovereignty over other campaigns and focused on providing organizational support to Maine's growing movement. FMF is a member of the National Family Farm Coalition, which in turn is a member of La Via Campesina, thereby linking Maine at least organizationally to the international food sovereignty movement (FMF, n.d.). As the original authors of the LFCSGO, Local Food Rules is also responsible for promoting its adoption across the state. The Local Food Rules website contains important information on how to get the ordinance passed in a municipality, including downloadable templates of the LFCSGO. Local Food Rules has also recorded and mapped the municipalities

that have passed the ordinance, but to date, little effort has been made to formally measure the impacts of the LFCSGO.

In 2017, the Maine State Legislature passed a state-level policy, the Maine Food Sovereignty Act, which states that the Legislature will support policies that encourage local food control, small-scale farming and food production, improved health and well-being, self-reliance and personal responsibility, and rural economic development. The law grants home rule authority to municipalities, supporting the right of cities and towns to vote to adopt ordinances asserting food sovereignty. However, almost as soon as the Act was signed by then-Governor Paul LePage, the US Department of Agriculture (USDA) stepped in and threatened to take control of all state-run meat processing facilities unless the law was amended (Pols, 2017). An emergency legislative session was called and legislators were essentially forced to pass an amendment stating that whether or not a municipality had passed a food sovereignty ordinance, meat and poultry products must continue to be inspected and licensed according to USDA regulations (“Maine Food Sovereignty Act”, 2017).

Maine’s food sovereignty movement could serve as a model for other states seeking to transform their food systems. Maine is a highly rural state and generally lacks high production of agricultural products, except for potatoes, blueberries, and maple syrup (USDA, 2017). However, it is a state full of small farms. An overwhelming 94% of farms in Maine are considered “small farms” under the USDA’s definition (USDA, 2017). In 2017, the average size of farms in Maine was 172 acres, compared to the national average of 441 acres (USDA, 2017). Organic farming is also quite popular in Maine, and in a 2014 ranking of US states by number of organic farms, Maine was ranked tenth (USDA, 2016). Unlike most states, Maine’s farmer population is actually growing. In 2016, Maine was recorded as having the second-highest concentration of beginning farmers in the U.S (Bulan et al., 2016). Importantly, 27% of Maine farms sell directly to consumers (USDA, 2017). In a state with many small producers, allowing those producers to sell their products without the burden of state licensing and inspection could open up a significant source of food for Maine residents. It could also maintain a culture of community connectivity around food that might have otherwise been lost as agriculture trends nationally towards fewer, larger farms (USDA, 2017).

The next section provides a detailed description of the methods used for data collection. The “Results” section reports the results of the interviews, beginning with a discussion of how

the food sovereignty movement began in Maine, and then identifying the common themes that arose in conversations with interviewees. The “Discussion” section is a discussion of those results in the context of the COVID-19 pandemic, as well as the limitations of this study. In the final section, conclusions are drawn and recommendations for future research are made.

## METHODS

I used qualitative research methods, specifically interviews and reviews of existing scholarship. The academic literature I reviewed primarily consists of journal articles accessed through online databases such as EBSCOHost, Scopus, JSTOR, and Google Scholar.

In January 2020, I completed unstructured interviews of ten individuals, four in person and five by phone. I used the websites and social media accounts of Maine's primary food sovereignty organizations, Local Food Rules and Food for Maine's Future, to find names of individuals involved in the movement. I searched local newspapers such as the *Bangor Daily News* and *Portland Press Herald* for articles reporting the passage of the Local Food and Community Self Governance Ordinance in towns and contacted people mentioned and/or quoted in the articles. I contacted state legislators who were involved in the passage of the Maine Food Sovereignty Act through the State Legislature website and directory. Finally, every individual contacted and interviewed was asked whether he or she knew of anyone else who could provide insight. Many people provided the same names, which, though it means the study has a small group of participants, also signaled that I was able to contact the most important members of this community. The small number of interviews is also due to a low response rate. That being said, the interviews that were conducted were with highly knowledgeable individuals within the food sovereignty community, and therefore provided substantial data.

Unstructured interviews were conducted with approval from the Colby College Internal Review Board. Though a prepared list of questions was developed for the interviews, the open-ended nature of the questions allowed the participants to take the conversation in whatever direction they liked, and also to challenge any underlying assumptions unconsciously made in the questioning. Questions were adapted over the course of the interview process when it was clear that the wording of certain questions did not make sense, or when they did not lead to a discussion of relevant themes. Questions were also altered slightly depending on the role the interviewee plays in the movement. For example, the questions for a State legislator were slightly different from those for a leader of Food for Maine's Future, which were slightly different from those for a citizen who proposed the food sovereignty ordinance in their town.

Certain key questions were asked of every participant, including 1) How would you define food sovereignty? 2) How did you become involved in the food sovereignty movement in

Maine and why is it important? 3) What is valuable about this way of exchanging food? 4) Are you aware of the global movement for food sovereignty and do you feel connected to that struggle at all? 5) What do you think accounts for the success of the LFCSGO and the concept of food sovereignty in Maine? 6) What does self-determination mean for Maine small farmers? As the interviews were conducted before the outbreak of COVID-19 in the United States, participants were not asked specifically about the pandemic. Rather, the results derived from the aforementioned questions were applied to issues of resilience under the current circumstances.

Participants gave consent to be interviewed and audio recorded. Informed written consent was obtained from all participants in in-person interviews, and informed verbal consent from participants in phone interviews. Each conversation was transcribed with the assistance of Otter.ai software, and then coded for common themes. The identities of participants were kept anonymous.

## RESULTS

Most people defined the concept of food sovereignty in terms of what the Local Food and Community Self-Governance Ordinance (LFCSGO) does; specifically, the exemption of small producers from licensing and inspection requirements. Many felt that food sovereignty was a way to reclaim political power in the hands of local communities and saw the burden of government regulation as the result of an unfair political system that gave disproportionate power to agribusinesses. When asked about the value of direct food transactions, many people discussed food safety, food quality, and the role that direct food exchanges play in community development. Most interviewees felt that the popularity of the food sovereignty concept in Maine related to Mainers' unique independence and the state's strong food traditions. Table 1 shows each interviewee and provides a short biography

Table 1. Pseudonym of interviewee and biography

<i>Pseudonym</i>	<i>Biography</i>
Farmer 1	Farmer 1 is arguably the figure at the center of Maine's food sovereignty movement. She resides in Penobscot, ME, one of the first towns to adopt the LFCSGO.
Farmer 2	Farmer 2 owns a small farm in Liberty, ME, where he raises goats. He is a leader of Local Food Rules and runs the "Food Sovereignty and Other Grassroots Movements" Facebook Group.
Farmer 3	Farmer 3 owns a small farm in Brooksville, ME. She was involved in the passing of the Ordinance in her town and neighboring municipalities starting in 2011.
Farmer 4	Farmer 4 owns a small farm in Chapman, ME. He pushed for the passage of the LFCSGO in his community in 2018.

Farmer 5	Farmer 5 owns a small farm in Greenwood, ME, where she produces maple syrup and baked goods. She became involved in passing the LFCSGO in 2016 as a co-manager of the farmer's market.
Advocate 1	Advocate 1 became involved in food sovereignty through the Alliance For Democracy and is a leader of Local Food Rules. She resides in Blue Hill, ME, another of the first towns to adopt the LFCSGO in 2011.
Advocate 2	Advocate 2 is a food historian and has her own small market garden. She is a proponent of food sovereignty but Islesboro, where she lives, has not yet passed the Ordinance.
Advocate 3	Advocate 3 is an executive board member of Food For Maine's Future, and is also involved in Local Food Rules
Senator 1	Senator 1 is a Democratic Senator in the Maine State Legislature. He co-sponsored the 2017 Maine Food Sovereignty Act.
Business Owner 1	Business Owner 1 runs a small coffee bean roasting business in Greenwood, ME, where she was able to start selling her product at the farmers market because of the LFCSGO.

### **The Rise of Food Sovereignty in Maine**

The story of Maine's food sovereignty movement begins with Farmer 1, who, with her husband, owns and operates a small diversified organic farm in Blue Hill, Maine. As Farmer 1 put it, the fight for food sovereignty "...started because the system came to our driveway and sort of confronted us with itself in a way that caused us to ask questions." Due to changes in Department of Agriculture regulations surrounding poultry processing and raw milk, Farmer 1 and her husband were essentially told that the way they were butchering their chickens and selling their milk was illegal, unless they invested tens of thousands of dollars in processing facilities, a move that would have been unsustainable both economically and ecologically for a



farm of their size. As Farmer 1 described, “we realized we actually no longer had a voice in how these rules and laws were being made, and that the department wasn’t going through the proper channels, but there was no accountability... [i]f they had control of the language, they could control our lives and they could eradicate us.”

The new poultry rules inhibiting Farmer 1 and her husband from getting their farm business off the ground were still in the public hearing phase, so Farmer 1 was told by the inspector to “gather her people” and go to Augusta to testify. She was able to connect with the then-Director of Food for Maine’s Future, as well as other organizations and individuals, who saw “...in the same big picture way that we saw that this was how the small guy gets squeezed out.” Farmer 1 said that “...the more we got into it, the more we could see that the corporate influence was what was creating the dollars in the USDA and the FDA, that were then being funneled into our Department [Maine Department of Agriculture], and the Department was then telling the legislature the rules and laws they had to make.” It was the Director of Food For Maine’s Future at the time who suggested looking into writing and passing an ordinance at the local level. The inspiration for the language of the ordinance came from Wyoming’s Food Freedom Law, as well as the rights-base ordinances being passed in other Maine towns to protect their water supply from corporations like Nestle bottling water in Maine.

As Farmer 1 explained, the term “food sovereignty” was first applied to the movement by journalists who began reporting on the passage of the ordinances, which then led to connections with other food sovereignty activists. Academic researchers also began to link what was going on in Maine with the broader food sovereignty movement. Though Farmer 1 says that the use of the term food sovereignty did not change anything about the way she advocated for the ordinances, she said,

“For me personally, it was an incredible broadening because I realized that we weren’t alone in this little community in Maine. It was happening everywhere... It was just encouraging to know that there’s this whole world of the global peasantry, the small farmers across the world, that are standing up and doing something substantial to wedge that legal space around what we’re all doing so that we can survive.”

## **Food Sovereignty as Freedom from Unfair Government Regulation**

When asked how they defined food sovereignty, almost all participants linked the concept directly to an ability to exchange food without external interference from unfair government regulation and inspection. As Advocate 2, a food historian and proponent of the LFCSGO in her community, said, “...every individual gets to decide what they want to buy to eat for themselves and their family without any government interference... You know your producer, you buy directly from your producer, and you leave out the rest of the cast of characters.” Echoing some of the language of the Nyéléni Declaration, Advocate 3, who is on the board of Food for Maine’s Future, expanded this basic definition, “...the ability of people to have access to the food that they want, to have culturally appropriate food of their choosing, without excessive government interference... It’s a rights-based custom. It’s an inalienable right to the food of your choosing.” She added, “...we don’t believe in no regulation, what we believe in is that it should be the right size regulation. The guy milking one cow and the guy milking 3,000 cows shouldn’t have to have the same infrastructure on his farm.” Farmer 3 claimed food sovereignty as a right granted by the U.S. Constitution, saying “food sovereignty is my right as a sovereign citizen of the United States to buy, sell, exchange, barter, trade, give, donate food between consenting adults. That right to buy, sell, barter, exchange, etc. is a part of our natural rights that are defined as other rights under our Constitution and the Bill of Rights.”

For most interviewees, freedom from burdensome government regulation is central to their definitions of food sovereignty because they see strict regulation as the result of the disproportionate power of agribusiness in government decision-making. When asked about the relationship between small farms and state authority, Farmer 2 replied:

“It’s generally not the relationship between the legislature and the farmers, it’s the relationship between the lobbyists and the farmers. When we were testifying up there on these various bills, the ‘suits’ would come in, as they call them, and were very, very vocal against all this; ‘we don’t want anybody doing anything for themselves because it takes money out of our pocket’ sort of deal.”

In response to the same question, Advocate 3 said, “in the former administration, the Commissioner of Agriculture was very wedded to what the USDA told him to do, and the USDA is only out for the big farmers... [He] gave a lot of lip service to small family farmers, but he really wasn’t interested in doing much of anything that was going to really help them. He was

interested in keeping his funding flowing from the USDA.” Even Senator 1 acknowledged the role that corporations play in rule-making, saying,

“some of these requirements that we see on slaughterhouses and facilities are so onerous and costly that for a small farmer that’s maybe just supplementing their income, it’s just not profitable... There’s definitely regulation that happens in this country designed to drive smaller people out so that bigger companies get the benefits... There’s a lot of big, big companies that can afford to go through all the regulation, knowing that when these smaller people drop out, they’ll have all the market.”

This idea of government regulation placing a significant financial burden on small farmers to the point that it makes producing at such a small scale economically unsustainable, was echoed by other interviewees as well. Farmer 1’s story serves as one example of many, and Farmer 1 herself gave the example of a neighbor who had been a dairy farmer until the rules became so burdensome that he had to sell his cows. She added, “none of the farms here on the coast of Maine had enough land to add that many more animals that would then pay for the infrastructure that was required, so they started disappearing.” Advocate 2 gave the example of crab pickers in her community, saying “If you look at what it costs to create the kind of crab picking operation that would meet state standards, who can afford it? \$40,000? You’d have to pick a hell of a lot of crab to make up that amount of money that would pay for that steel-walled room you [have to] have.” As Farmer 2 said, “For somebody like General Mills, \$100,000 for some processing room is a drop in the bucket, but on a local level, if you want to be a licensed kitchen, you’ve got to spend a certain amount of money to do it. On a small scale, it probably is not something that’s particularly viable.”

The financial burden of regulation also serves as a barrier for small producers trying to launch a successful business. Business Owner 1 owns a small coffee bean roasting business and was able to start selling at her local farmers market because her town had passed the LFCSGO. Selling at the farmers market essentially allowed her to test the market before committing to launching her business, and she has since invested in expanding her operation in order to get licensed and sell in stores. Though her business is now a success, Business Owner 1 said “...figuring out the state guidelines and policies to get the license was incredibly difficult. It took me many phone calls and I was given many different answers about what I needed to make it

happen.” As Farmer 5, another small producer said, “the ability to try something out is so much easier when you’re not going through all this licensing and inspection and all that sort of thing. Really, that is the biggest benefit to people, that they can sell directly to consumers without the inspection and the licensing.” Farmer 4 echoed a similar argument, citing it as the reason he decided to get involved in food sovereignty and try to pass it in his own town. When asked what self-determination means in the context of Maine small farmers, Advocate 3 emphasized that family farmers should be able to make a living without off-farm income. As she says,

“The hurdle right now is that entry level. It’s hard for a farmer to get started because land is expensive and then there’s these onerous burdens of regulation that makes them put in the same infrastructure to milk one cow as to milk 100 cows. There’s got to be a middle way and that’s what the food sovereignty ordinance does. It allows people to start out small, sell to their neighbors, build their equity, build their infrastructure, then move off into the wholesale market, if that’s what they want to do. It also allows for those who don’t want to grow that much to stay at whatever is the right size for them and make a living.”

### **The Value of Direct Food Exchanges**

Most interviewees argued that the value of the direct food exchange made possible by food sovereignty promoted better food safety and food quality, as well as a sense of community surrounding food. While the claims regarding safety cannot be supported by comprehensive data at this point, they are commonly cited by proponents of local food. Many pointed out that a lack of food safety is the argument most often used by opponents of food sovereignty. As Farmer 2 said,

“Food safety is always the hue and cry of people who are against it, and yet, if you look at the statistics, more people have died from the commercial system and more people get sick from the commercial system. You get these vast outbreaks of salmonella that are so hard to control because it’s coming from A to B to C to D to get to you, and you don’t know where it came from. At least on a local level, if you get sick, you know where it came from, so it’s much more controllable.”

Farmer 2 went on to note how nonsensical the state’s rules on food safety seem, saying,

“I raise my own goats, I slaughter my own goats, I process my own goats and make my own sausage, and so on and so forth. Legally, I can’t sell it, but legally,

I can feed it to me, I can feed it to my family, I can feed it to employees on my farm, and I can feed it to unpaying guests. So it's all safe for those people, but if somebody puts a buck on the table, it suddenly becomes an unsafe, hazardous food."

Advocate 2 shared this sense of frustration, saying, "some people say, 'well, I don't know if I could trust food from my neighbor,' and I'm thinking, 'you can't trust that hamburger that's coming out of Iowa. You can't trust the romaine lettuce, for God's sake!' You can trust your neighbor much more than you can trust those big operations, because the trouble always comes from big operations, not the little guys."

Interviewees not only felt that locally produced food is safer, but that it is also better quality and more nutritious. As Senator 1 said, "oftentimes, if not always, those foods are probably a lot better, a lot healthier, not all that much spray and stuff on there to keep it looking good for a longer period". Farmer 4 echoed this idea, saying "...the more involved you are with the customer, it changes your mindset... I definitely think the type of food that is grown by people who are really close to their customer base is better and more wholesome than that stuff that is just sold on the market". As Farmer 2 noted, "...you can understand, know, and control the nutritional value of the food... I know that I didn't put Roundup in my garden. It's a clean source of food." Farmer 3 said her primary motivation as a small producer is to make good quality food: "The money that I make is not enough to pay for the effort. It's more the love of being able to exchange the best food I can make with friends, family, and neighbors. There's just nothing but pure joy. People coming back to you and saying, 'it was so good, we loved it.'" For Farmer 5, food sovereignty as a whole "...comes down to our belief in a quality food system, growing it and also eating healthy ourselves."

People also discussed how direct food transactions force producers to be accountable to their customers to produce the best food possible, fostering a sense of trust in the community. Senator 1 argued that:

"...if the [producer] is in your community and you've had the opportunity to deal with them for whatever amount of time for other different things, each of you is going to trust each other. They're not going to sell you something that they're afraid is going to hurt you, because they know you and they probably care about

you to some extent... People are more apt to try to strive harder to make sure that it is safe because they actually know who they're dealing with."

Farmer 2 made the point that it is in farmers' business interests to produce the best food possible for their communities, saying, "In terms of food sovereignty, poisoning your customers is not a good business plan. It just doesn't make any sense." Farmer 5 argued that large food corporations, "...don't have the personal attachment, the personal conviction, to do the right thing that a small local farmer has... Small and local farmers, they're face to face with their customers. They have pride in what they're growing and what they're making, and it comes back on them if there's something wrong..." As Farmer 3 noted, "...the ability to put your hands around the neck of the person who screwed up is totally within your grasp if it's in your community, if it's in your town. And that's what local is all about." Farmer 1 sees food exchanges as an integral part of community life. As she said, "When you come into contact over food on a weekly basis, there are relationships that grow out of that that are very special. This person is maybe in the farm store and needs childcare, and someone else comes in and has a teenage daughter and they make a connection. Just things like that that once you take the farm out of the picture, it radically changes the way we relate to each other in that community."

Two participants linked the value of food sovereignty directly to the sustainability of their communities. Advocate 2 lives in a small town on an island off the coast of Maine and she described how a couple of years ago, the ferry service to the mainland raised ticket rates from \$13.75 to \$30 round trip.

"All of a sudden, our relationship to grocery stores has changed, because it's a big freakin' deal to go to the mainland... We just realized with the ferry service able to just slam our economy like that that we need to do a great deal more self-sustaining out here... Of course, growing food is a big, big part of it... Anything you can do to make it better for people to buy food locally is a good thing to do. And this rule [the LFCSGO], besides making it possible for people to buy anything they want anywhere on the island and have value-added without having to have an inspected kitchen, means that producers can be more self-sustaining. The rule makes it possible for production to be well-supported."

Advocate 3 felt similarly that:

“...the fact that we import 90% of our calories to Maine is a dangerous and an unsustainable system. I want to rebuild the local food infrastructure so that we can feed ourselves, because that’s sustainable... this whole idea of shipping food out so that we can ship food in is just ludicrous to me, it’s just ridiculous... [local food systems] are the kinds of things that we need to be paying attention to and rebuilding, so that we can feed ourselves.”

### **Why Maine?**

When asked what they thought accounted for the popularity of food sovereignty in Maine, many people discussed the state’s unique culture of independence and self-sufficiency, as well as its history of food production and its rich food traditions. As Farmer 2 put it, “...I think people up here have a more self-sufficient gene in their bodies”. Senator 1 described it as an “independent mindset”, while Farmer 3 cited Maine’s “...strong history of independent thought and suspicion of rules and regulations”. Advocate 3 noted that many Mainers likely do not even realize that they do not already have food sovereignty, saying, “...if you say to them, ‘you should have the right to the food that you want’, they’ll say to you, ‘I don’t?’ It’s ridiculous to think that they don’t have the right to the food that they want”. Farmer 1 added that this independent mindset is also tied to a particular attitude toward local democracy.

“One of the things that never went away in Maine, like it has in a lot of the other states in our country is town meeting. People understand that they have a vote... people understand that town meeting is a place where we decide on things that are important to our community... so that particular piece of that democratic engagement is deep seated here and people still know that that’s a tool that we have in our chest”.

Maine’s history with food production was also discussed by many interviewees. Both Senator 1 and Advocate 2 mentioned Maine’s history with the back-to-the land movement. As Advocate 2 said, “I think something like [food sovereignty] makes a lot of sense to people who came up with that ethical approach to things.” Farmer 1 brought up the fact that:

“in Maine, people aren’t that far removed from food production... If people aren’t growing their own food, they were raised on a farm, or grandpa did. There’s also still in our living memory: ‘I remember when the Tamworth or Hancock County

Creamery made those ice cream sandwiches.’ Those in particular, the creameries, people know didn’t go out of business because of bad management. They know that it was policy.”

Farmer 1 gave other examples of food traditions that had disappeared over the years because of regulation, specifically fishing for alewives and crab picking, which were once common in coastal Maine. As she said, “There was such a backlash to that because with food, we’re not just talking about food, we’re always talking about a way of life and we’re talking about a culture.” Advocate 3 expressed a similar sentiment, relating it to her own experiences growing up in Maine.

“When my mother grew up...every town in Maine had its own canning factory. They canned blueberries, they canned green beans, and that food stayed local; it was grown locally, it was canned locally, it was consumed locally... We had a milkman, we had an egg lady, there was a little old lady in [town] that made butter, so we had local butter. That kind of feeding ourselves is less than a generation gone, so rebuilding that kind of infrastructure is very doable in Maine, much more doable than it is in a lot of places in the country”.



## DISCUSSION

Participants in Maine's food sovereignty movement defined the concept in terms of a freedom from burdensome government regulation, especially requirements for expensive processing equipment, which they see as a product of the power of agribusiness in government decision-making and as favoring corporations over small farmers. Food sovereignty in Maine is about giving communities the political power to determine their own food systems, but it is also about creating conditions in which small farming can be economically viable. Many felt that the Local Food and Community Self-Governance Ordinance (LFCSGO) removed financial barriers in food production, especially for beginning farmers.

Interviewees often framed the benefits of direct food exchanges in terms of trust. A neighbor's food is considered more trustworthy than a corporation's because there is a greater level of transparency in production, even when that neighbor's food is not licensed or inspected. Proponents of food sovereignty in Maine argue that food produced locally is safer because the producer is held accountable by a smaller, more personal customer base. Direct food exchanges are also valuable in the way that they make farms locations of community connectivity, where a personal relationship between producer and consumer develops. Localized production and consumption is seen as being more sustainable ecologically and economically over time, as well as in the face of dramatic change. The appeal of food sovereignty in Maine can be attributed to a culture of independent thought and strong local democracy, as well as a history of local food production.

Despite the fact that this study was conducted before the outbreak of the COVID-19 pandemic in the United States, the results have clear implications in light of the current problems arising in our industrialized food system. As discussed previously, the global pandemic has exposed a number of vulnerabilities in the US food system, and the longer lasting impacts are still unclear. Due to processing plant closures and disruptions in demand and transportation, vegetable farmers are plowing their crops back into the soil, dairy farmers are dumping milk, and meat farmers are "depopulating" their flocks or herds (Sy et al., 2020; Wiener-Bronner, 2020). In the face of significant COVID-19 outbreaks among workers in meat processing plants, President Trump used the Defense Production Act to force plants to stay open, bringing to light issues of workers' rights and social justice within the industrial food chain (National Farmers Union,

2020; Welker et al., 2020). Ultimately, a better understanding of what a resilient food system looks like is needed now more than ever, and the vision promoted by Maine's food sovereignty movement could potentially serve as a good example.

By encouraging a proliferation of small scale producers, Maine's food sovereignty movement could help to create a food system that is more diverse and redundant, two key qualities of a resilient food system. Hodbod and Eakin (2015) identify two types of diversity: functional diversity, referring to the number of different system components performing different functions, and response diversity, "the diversity of types of responses to disturbances within a functional group" (476). In their study identifying eight qualities of resilient food systems, Worstell and Green (2017) define a redundant system as one in which "...several of each component of a system are present and they are replaced when lost" (30). Therefore, redundancy is dependent on diversity. Relating this concept directly to consumption behavior in the COVID-19 pandemic, Worstell (2020) writes, "[w]hen people rely on one source of food, they are likely to hoard as much as possible in times of scarcity. When they have multiple sources, hoarding is unnecessary" (4).

Food sovereignty in Maine both promotes and protects local food production. As discussed by many of the interviewees, by freeing producers from the financial burden of licensing and regulation, the LFCSGO lowers the barriers to entry into the market for small producers and makes farming and local food production more economically viable. A food system based on many small producers rather than a few large integrated food corporations is likely to have greater functional and response diversity, as individual producers produce different products, use different methods of production, and respond to challenges to the system differently. By encouraging people to produce food and protecting existing producers from being forced out of the market by regulation, the ordinance opens up alternative sources of food within communities, thereby increasing diversity and redundancy of the food system at the local level.

Increasing the number of small farms and promoting local consumption provides other resilience benefits as well. The systems of production used on small farms are more likely to increase on-farm biodiversity, while reducing reliance on external inputs, such as pesticides, fertilizers, and fossil fuels (Steinbuck, 2013; Hendrickson, 2015). As Hendrickson (2015) writes, local food systems are "...often based on the principles of agroecology, where a site of agricultural production is thought of as an ecosystem with practices based on ecological

principles and integrated into a sustainable food system” (428). Small farms are also more likely to be better able to adapt to changes more quickly (Hendrickson, 2015). Rybus and Olson (2020) document how in response to the COVID-19 pandemic, small farmers in Maine have been forced to pivot quickly to a business model reliant on on-farm purchases rather than distribution to restaurants. As one farmer said, “We talk about how important it is to be diversifying what you’re doing, how it helps when something [like one particular crop] fails. This is a different sort of failure than we really expected, but it has been super beneficial to us to change direction really quickly” (qtd. in Rybus and Olson, 2020). Grodinsky (2020) writes that “[s]mall vegetable farms that market directly to consumers - through farm stands, [Community Supported Agriculture] and farmers markets - have seen a surge in demand, according to farmers and agricultural experts”, and similar trends are being seen across the country (Westervelt, 2020). This type of direct food transaction is exactly what Maine’s food sovereignty movement has been trying to encourage and protect through the LFCSGO. The ordinance expands farmers’ ability to market not only produce but also value-added products directly to consumers at a time when they may need them most.

The promotion of on-farm and direct producer-consumer interaction also has implications for perceptions of food safety. During the current pandemic, people are avoiding grocery stores not only because of stock shortages, but also because of fears of contamination from food packaging and a need to remain socially distanced from large gatherings of people. Proponents of food sovereignty argue that direct food transactions within communities hold the producer accountable to his or her neighbors, and encourage the consumer to better understand where his or her food is coming from. Unlike food that is produced, processed, and transported by far away industrial producers, local food is perceived as being safer and healthier. In Rybus and Olson’s (2020) article, one Maine farmer is quoted as saying, “I think there is a recognition that when you are buying directly from a farmer that food has traveled through fewer hands”. Whether or not buying food from a local farm actually reduces risk of exposure to the SARS-CoV-2 virus, the perception that it does is a powerful motivator for consumers to move away from the industrial supply chain.

The most important strength of Maine’s food sovereignty movement and what sets it apart from other local food movements is its emphasis on local democratic engagement, which puts the control of food systems directly into the hands of the communities themselves. This type

of social control is well-documented in scholarship as a key component of food system resilience. For example, Jacobi et al. (2018) identify self-organization, “...the degree to which actors in a food system are capable of controlling system processes as well as to self-regulation...”, as one of three core dimensions of resilience (434). Alternately, the disproportionate power of food corporations that dominate the markets has been identified as a major vulnerability of the U.S. industrial food system (Hendrickson, 2015; Rotz and Fraser, 2015; Steinbuck, 2013). Hendrickson (2015) argues that decision-making power determines the ability of a food system to accommodate change, stating, “[t]he problem with consolidated global markets and the required capital outlays to participate in them is that farmers have few options if anything goes wrong” (426). Rotz and Fraser (2015) state similarly that “reduced decision-making autonomy” results in “...the loss of capacity for small- and medium-sized producers to maintain their scale or make changes to production based on external stresses or perturbations, an essential element of resilience” (9). Therefore, just as participants in this study argue, local control via the LFCSGO gives small producers the freedom to produce, process, market, and distribute food on their own terms, which makes them better able to adapt to rapid change.

Ultimately, many of the recommendations for increasing food system resilience made by scholars match the vision promoted by Maine’s food sovereignty movement. As Rotz and Fraser (2015) conclude, “...the policy goal ought to embody transformative shifts in system connectivity, diversity, and decision-making autonomy that improve ecological resilience on the farm, within the processing and distribution process, and throughout the food system as a whole” (12). Hendrickson (2015) argues that while food system resilience cannot be achieved through one approach, actions need to be taken at multiple levels that are “...rooted in ecology, democracy, and economic and social equality...” (418). Steinbuck (2013) notes that a food sovereignty framework is particularly effective in that it allows local communities to “...retain the agency to decide and craft their own scalar linkages based upon their unique historical and cultural contexts...[C]ommunities that retain personal, face-to-face trade relationships with each other and strong cultural values tied to place increase their adaptive capacity to deal with external disturbances...” (74). Food sovereignty in Maine as enacted through the LFCSGO, both enhances producer and consumer agency in food systems and protects personal connections

developed through the exchange of food. It strengthens a culture of food production that, unlike many places in the United States, was never really lost in Maine.

### **Limitations**

There are a few limitations to this study that should be noted. The first is the low sample size of individuals interviewed. With only ten interviewees and all of them proponents of food sovereignty, it is likely that having a larger and more diverse group of participants would have allowed for a broader and more detailed analysis of what food sovereignty really looks like in Maine and the incentives and constraints to implementation. Future studies should include the views of those opposed to food sovereignty in order to gather multiple perspectives. Additionally, the fact that this study was conducted before the pandemic means that participants were not asked about the LFCSGO's ability to foster food system resilience. Therefore, the analysis is speculative and relies heavily on existing academic literature rather than documented experiences. Food sovereignty is still a relatively new movement in Maine and Local Food Rules and Food For Maine's Future have limited capacity to collect concrete data from producers using the LFCSGO about its impacts. Future research should focus on measuring the impact of the LFCSGO as it is adopted throughout Maine, especially in the context of resilience to the COVID-19 pandemic. This could consist of studies investigating the following questions:

- How many producers are actually using the LFCSGO?
- What types and quantities of foods are being exchanged?
- What are the economic impacts of direct food exchanges for producers and their communities?
- What types of relationships are fostered between consumers and producers through a direct food exchange?
- Are there changes in public health where the LFSCGO has been adopted?
- How did the adoption of the LFCSGO impact a town's food supply during the COVID-19 pandemic?

Future research should also investigate the potential downsides to food sovereignty in Maine. As scholars have argued, local food movements often frame the "local" in opposition to the "global", with the former taking on positive associations and the latter negative (DuPuis and Goodman, 2005; Fairbairn, 2012; Hinrichs, 2003; Mares and Alkon, 2011). What "local" actually means is often undefined and this dichotomy oversimplifies complex social and

environmental relationships (Hinrichs, 2003). As Fairbairn (2012) writes, “...the current emphasis on food system localization obscures the intolerance and inequality that may be just as prevalent at the local scale as at any other.” (220). For example, Mares and Alkon (2011) claim that the focus on the economic sustainability of small farmers obscures issues of food access and farmworker rights. In terms of food system resiliency, Worstell and Green (2016) argue that while diversity and redundancy are key qualities of a resilient food system, there is an optimal level for each, which if surpassed, can lead to inefficiency in localized systems. In other words, while local food systems are more likely to be redundant and diverse because they are reliant on multiple small producers, there can come a point where there are too many small producers within the local market, which does not confer resilience.

## CONCLUSION

Through an examination of Maine's food sovereignty movement, this study found a connection between food sovereignty as enacted through the Local Food and Community Self-Governance Ordinance (LFCSGO) and overall food system resiliency in Maine. Advocates for food sovereignty argued that the LFCSGO makes small farming and food production more economically sustainable, promotes safer and healthier food consumption, enhances community connectivity, and strengthens local democracy. Their vision of a food system controlled by local producers is supported by existing literature on food system resilience, and more importantly, by the surge of interest in alternative local food production, both in Maine and across the country. It is premature to declare conclusively that Maine's food sovereignty movement has impacted the resilience of the state's food system, but this study lays the groundwork for future research to produce more measurable outcomes. It also highlights an approach to food systems that may be increasingly necessary as we face global pandemics and climate change, both of which expose the failures of the industrial approach. Whether the food sovereignty movement in Maine and elsewhere will be strengthened by the current crisis remains to be seen, but perhaps Advocate 2's words will prove to be prophetic: "right now, food sovereignty is sort of the countervailing thing to the prevailing food industry paradigm, but I'd bet it never gets to be the prevailing one unless there's some kind of a massive collapse of life as we know it, whereupon the sovereignty thing will save everybody's ass."

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