Available online at www.centmapress.org

Int. J. Food System Dynamics 14 (2), 2023, 134-145

DOI: https://dx.doi.org/10.18461/ijfsd.v14i2.F1

INTERNATIONAL JOURNAL ON FOOD SYSTEM DYNAMICS

Anchor Institutions and Food Resilience: A Multiple Streams Approach

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Received September 2022, accepted December 2022, available online April 2023

ABSTRACT

Anchor institutions (AIs) play an essential role in food system resilience. We utilize Kingdon's multiple streams approach (MSA) to analyze AIs' food system resilience activities in Vermont. Drawing on a series of focus groups to understand activities to foster food system resilience. Local food supply chains can be a source of resilience; barriers such as labor and infrastructure shortages can be overcome through greater use of local food processing and distribution. The MSA lens suggests that Covid-19 can serve as a focusing event, incentivizing investment and leveraging the national mood for greater consumption and support for local food.

***Keywords**: Anchor institutions; multiple streams approach; food resilience*

1 Introduction

Touted for their economic importance and contributions to community development, anchor institutions (AIs) play an essential role in many communities. Cantor et al. (2013) defined anchor institutions as "place-based organizations that persist in communities over generations, serving as social glue, economic engines, or both" (p. 20). Although the term encompasses a wide variety of institutions, among the most common examples are schools, hospitals, and universities. Due to their mission-driven nature, many such institutions take an active role in community development.

One crucial way institutions can support their local communities is through their procurement choices. Farm-to-institution (FTI) programs, or farm-to-anchor-institution in the case of this study, have drawn increasing attention for their contributions to local food systems, a potential not yet fully realized in many regions (Becot et al., 2016; Stahlbrand, 2019). As a result, many AIs have sought to increase purchases of local and sustainable food products, leveraging their sustainable purchasing power to support their local economies and farmers (Health Care Without Harm, 2020).

This paper examines the role of AIs in fostering food resilience in the New England region and state of Vermont in the United States, through the lens of Kingdon's (1984) multiple streams approach. It begins with a review of literature of institutional procurement, the policy window, and challenges posed by Covid-19. We describe the methods of the focus group study and their results across four key themes. Our discussion frames the issues within the MSA approach and proposes practical applications for outreach providers and institutions. We conclude with limitations and future research directions.

2 Literature Review

2.1 Institutional Food Procurement and Resilience

Local food purchases can have significant economic and employment impacts. FTI programs have varying multiplier effects, typically ranging from 1.25-2.4, depending on the specific context (Kane et al., 2011; Becot et al., 2016; Benedek et al., 2020; Roche et al., 2016). FTI programs also create new employment opportunities, both at the institutions themselves and throughout the region. For example, Farm-to-School purchases in Oregon created seven new related jobs within the school districts (Kane et al., 2011). Additionally, the resulting rounds of economic transactions led to the creation of 10 more jobs within the state, a multiplier effect of 2.43 (Kane et al., 2011). According to prior research, employment multiplier effects for FTI programs typically range from 1.27-3.30 (Kane et al., 2011; Roche et al., 2016; Becot et al., 2016).

In addition to their significant economic contributions, FTI programs also promote food system resilience. Resilience is the ability to withstand or overcome disturbances (Tendall, 2015). Local food purchases at AIs support the most basic components of resilience: functional redundancy, diversity, and connectivity (Ungar, 2018). AIs create functional redundancy within their supply chains by engaging with local and national suppliers, reducing their reliance on a single vendor. By creating a market for mid-scale producers, AIs also support a diversity of farm sizes within their region, which is particularly important for food system resilience (Reidsma and Ewert, 2008). Finally, FTI programs often use value-chain models that create mutually beneficial relationships and promote a high level of connectivity between suppliers and producers (Conner et al., 2018; Thilmany et al., 2020).

2.2 The Current Policy Window

Drawing on Kingdon's multiple streams approach (MSA), we argue that the COVID-19 pandemic has created a unique window of opportunity to address some of the barriers to local procurement at AIs. The MSA identifies three 'streams,' problem, policy, and politics, that coalesce to create the optimal conditions for policy change, depicted in figure 1. (Shepard et al., 2019; Kingdon, 1984). The MSA is an adaptable framework applied in numerous countries at various levels of governance and a wide range of policy areas (Jones et al., 2016).

2.2.1 The Problem Stream

The first component of the MSA is identifying a defined issue worth the attention of policymakers, referred to as the problem stream. Problem stream identification can happen in several ways, including monitoring indicators and metrics, like the unemployment rate, based on feedback from previous policy initiatives or in response to a focusing event (Jones et al., 2016). A focusing event is a jarring event or crisis, like a catastrophic weather event, a terrorist attack, or a public health crisis like the COVID-19 pandemic, that draws attention to a particular problem. The acute manifestation of a problem through a focusing event often encourages policymakers to address longer term

challenges and underlying causes. According to O'Donovan (2017), "experience with a policy problem revealed by focusing events allows policymakers to interpret and manage ambiguity in ways that promote policy change" (213).

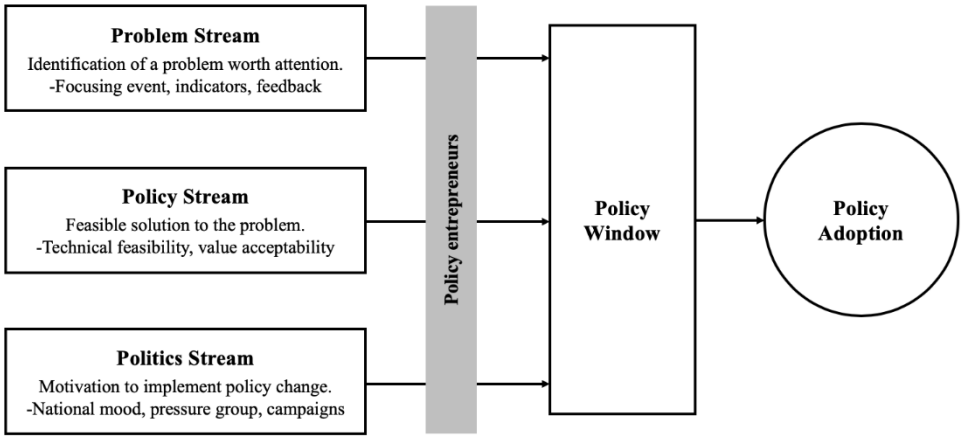

Figure 1. Multiple Streams Approach.

2.2.2 The Policy Stream

While there are often numerous potential policies that have the ability to address a particular problem, not all solutions are equally feasible. Viable policy streams must be technically and politically feasible (Shepard et al., 2019). Politically feasible solutions have a high level of value acceptability, defined by Jones et al. (2016) as conforming "to existing value constraints" (p. 16). On the other hand, technical feasibility means there is the technical ability to implement the proposal, and the resources required are reasonably obtainable (Jones et al., 2016).

2.2.3 The Politics Stream

The final stream in the MSA is the politics stream, meaning there is a willingness to enact potential solutions. Political willingness is impacted by the national mood, i.e., feedback politicians receive from interest groups and to what extent the policy reflects party ideology (Jones et al., 2016; Shepard et al., 2019).

2.2.4 Policy entrepreneurs

Policy entrepreneurs or champions shape policy outcomes and play a vital role in creating and utilizing windows of opportunity. Policy entrepreneurs influence policies by generating attention to a problem (problem stream), putting forward a preferred solution (policy stream), and influencing policymakers faced with alternative possible courses of action (politics stream). Policy entrepreneurs can use insider and outsider tactics to influence policymakers "by helping direct the attention of policymakers to issues of importance to the community through a more collaborative insider approach while at the same time demonstrating the potential to increase the pressure on powerholders through mobilization and media coverage using an outsider strategy" (Shepard et al., 2019, p. 15). These efforts are particularly effective when a focusing event captures widespread public attention thereby creating a window of opportunity to enact policy changes (O'Donovan, 2017).

2.2.5 Focusing Event

The COVID-19 pandemic is an example of a focusing event that has generated attention for numerous issues. For institutional foodservice operations, the pandemic has highlighted two important problems (problem stream): shortages of staple food items, which demonstrated vulnerabilities within the larger national supply chains, and labor shortages within the foodservice industry (Béné, 2020; Fardkhales and Lincoln, 2021; Ramsey et al, 2021; Cunningham et al., 2021, Hobbs, 2020; Smith and Page, 2021).

Many policies have the potential to address these issues (policy stream). For example, in Vermont, a strategic partnership of AIs has received funding through the Kendall Foundation to invest in solutions to increase local procurement (Henry P. Kendall Foundation, 2020). This group coordinated demand and invested in processing infrastructure at a local food hub to address the previous lack of processed local products, which had increased costs and exacerbated labor challenges at institutions trying to increase their use of local food (Henry P. Kendall Foundation, 2020). Furthermore, in New England, there is a high level of consumption and support for local foods

giving this solution a high level of value acceptability (American Farmland Trust, Conservation Law Foundation and Northeast Sustainable Agriculture Working Group, 2014).

Finally, there is the opportunity to generate strong political support for an initiative designed to increase local food purchases (politics stream). Since the pandemic started, there has been a growing demand for local food products, reflecting the national mood and current support for local foods (Richards and Vassalos, 2021; USDA Economic Research Service, 2021; Food Insight, 2021). The convergence of these three streams, if coupled with the support of policy entrepreneurs who highlight and champion FTI-based solutions, may create a policy window in which policy change is feasible.

2.3 Challenges Related to COVID-19

Hospital foodservice operations often provide the public with access to affordable, quality food. However, most hospitals were closed to the public during the early months of the COVID-19 pandemic, leading cafeteria sales to plummet as the number of people on hospital campuses sharply declined with the cancellation of many non-essential services (Cunningham et al., 2021; Boss, 2020; American Hospital Association, 2021). During the early months of the pandemic, many institutions enacted hiring freezes or furloughed employees to cut spending (Rosewicz and Maciag, 2020; Flahery, 2020; Kochhar and Barroso, 2020). For example, from March to July of 2020, around 82% of universities implemented a hiring freeze (Rosewicz and Maciag, 2020; Association of American Colleges and Universities, 2020). As many hospitals returned to performing elective surgeries and schools and universities transitioned back to in-person classes, many of these institutional foodservice operations experienced a rapid renewal in demand. This renewed demand caused many institutions and the foodservice industry as a whole to struggle with labor shortages (Buzalka, 2021; Smith and Page, 2021; Blank, 2020; Hobbs, 2020; Brandon Williams, personal communication, June 30, 2021).

Another challenge institutions faced was shortages of common food items. A survey of New England hospitals found that 67% of participants experienced shortages of staple food items during the first nine months of the pandemic (Cunningham et al., 2021). These shortages have continued to persist into the new year (Smith and Page, 2021). Interestingly, past research has demonstrated that short supply chains, which often involve more direct relationships with local producers, are more resilient to shocks (Thilmany et al., 2020; Hardesty et al., 2014). Initial research in the context of COVID-19 has also indicated that short food supply chains were more resilient to the unique disruptions related to the pandemic (Marocchino et al., 2020; Cunningham et al., 2022). Institutions utilized their existing relationships with local farms or established new ones to adapt to the shortages of food items among broad-line distributors (Cunningham et al., 2022).

2.4 Existing Challenges to Increased Local Procurement

Two primary barriers that hinder the expansion of local procurement at AIs are the lack of year-round product availability and the lack of processed local foods (Braun et al., 2018; Kloppenburg et al., 2008; Gregoire et al., 2005; Conner et al., 2010). The lack of year-round availability is an exceptionally substantial obstacle; for example, a study of Iowa producers found that out of 19 factors, lack of year-round product availability was rated as the most significant obstacle for selling to institutional markets (Gregoire et al., 2005). The lack of processed local fruits and vegetables is also a substantial barrier, as many institutional buyers cannot justify paying the price premium for local products that they then have to invest more time and energy into processing (Braun et al., 2018; Henry P. Kendall Foundation, 2020; Conner et al., 2010).

These barriers are symptomatic of a larger issue within the food system, a lack of 'infrastructure of the middle.' Infrastructure of the middle refers to the critical mass of essential "resources, facilities and networks" that enable alternative, mid-sized, regional producers to meet the needs of high-volume foodservice clients, like AIs (Stahlbrand, 2019, p. 130). Infrastructure of the middle supports mid-size farms, improving their economic viability by providing them with access to high-volume markets.

There is a need for greater emphasis on overcoming these infrastructure challenges and how AIs can contribute to these solutions. This research project aims to better understand how AIs can increase local procurement efforts. Specifically, this research seeks to address the following research questions:

1. What are the current activities practitioners at anchor institutions engage in to increase local food purchases, and what has made them successful? What are the challenges they still face?

2. What can AIs do in the future to increase local procurement?

3. How have AIs responded to shocks to the food system in the past?

4. How can technical assistance and outreach providers better serve these institutions?

Although we conducted this research just before the COVID-19 shutdowns in the U.S. which began in March of 2020, the findings have only increased in relevance and applicability, given the strain the pandemic has put on the food

system. This research asked participants about their responses to shocks and ways to increase local procurement, both issues that have become increasingly relevant during COVID-19. The following sections outline (i) the methods used; (ii) results of the focus groups, highlighting the impacts of the pandemic and the potential window of opportunity it presents; (iii) a discussion focusing on convergence of problem, policy, and politics streams creating a policy window around local food sourcing by anchor institutions; and (iv) conclusions focusing on implications for the future.

3 Methods

We explored our research questions using focus groups with technical assistance providers and foodservice managers, and administrators from prominent New England institutions. Focus group participants were selected to include various perspectives within the sector to facilitate a dynamic conversation. The focus groups represented the three most common types of AIs: K-12 schools, hospitals, and universities.

3.1 Focus-Group Strategy

The research team conducted focus groups with at least three members of the team present. However, a primary researcher led the focus group discussions. The primary researcher was responsible for asking the five primary questions, probing questions, and encouraging participation among the group to ensure each participant's perspective was heard and captured in the research data. Each focus group had a range of four to six participants. Some participants called in via phone; however, the majority were in person. Focus groups lasted anywhere from 45 minutes to an hour and a half.

Each of the four focus groups included employees working in a particular type of AI or sector. According to research by Hennick et al. (2019), four focus groups provide enough data to adequately reach code saturation, identifying “94% of all codes and 96% of high-prevalence codes” (p. 9). The focus groups were composed of institutional foodservice providers at hospitals, universities, and K-12 schools, as well as technical assistance providers who worked closely with AIs. This allowed the participants to discuss the particulars of their sector and researchers to compare which experiences were universally applicable to AIs or specific to one industry.

The researchers co-constructed the focus group protocol, which contained five primary open-ended questions. The first three interview questions focused on the barriers institutions faced when attempting to increase local food procurement (problem stream), the essential resources they currently used, and the ones they wish they had access to (potential policy streams). The fourth question asked participants what lessons they had learned from their foodservice experience that they wished they had known earlier. The final question focused on how the institutions responded to emergencies or natural disasters.

3.2 Analysis Strategy

Audio recordings of the four focus groups transcribed verbatim using Nvivo software served as the basis of this analysis. Coders completed a full review of the transcripts for accuracy before engaging in the coding process. The data were analyzed using a constant comparative method, a cyclical process of identifying codes and themes within and across groups, and examining these themes in comparison to the existing literature (Lindlof and Taylor, 2011; Charmaz, 2005). Each step of the analysis process was conducted independently by two researchers, who then discussed and compared their results.

All analysis processes repeated until saturation, the point at which no new codes or themes emerge and the codebook stabilized (Hennink et al., 2019). The results use representative quotes from the focus groups to support research claims and reflect participants' voices (Owens, 1984).

4 Results

Four recurrent themes emerged from the focus group data. The first two themes build on previous research. The first identifies challenges with labor and infrastructure as obstacles hindering the expansion of local procurement efforts. The second demonstrates that AIs believe shorter, more local food supply chains are more resilient to shocks. The final two themes identify practical, actionable methods to enhance local procurement efforts at AIs.

4.1 Labor and Infrastructure Challenges

Labor shortages affected both local suppliers and institutions. Many institutions struggled to maintain adequate staffing levels. This was a particular challenge for universities and schools, which operate seasonally, maintaining low staffing levels throughout the summer months. One university foodservice administrator explained how this is a

barrier to purchasing more local products, "*we open up in the fall with 140 openings, and that really puts a hardship on our dining halls...to bring in a product that is local we would have to spend more time on [processing] that product.*" Even for institutions like hospitals that do not operate seasonally, staffing can be an issue, as this challenge is widespread throughout the food system. As one participant explained, "*everyone is facing a huge labor challenge in the kitchen, with drivers, on farms, etc.*" These labor challenges also affect the suppliers' ability to meet institutional demand. Participants noted that smaller farms, in particular, had trouble hiring qualified and interested drivers, leading to less consistent deliveries.

Given that processing local products is a challenge for institutional buyers due to their labor limitations, AIs were adamant about the need for infrastructure development. One institutional buyer stated, "*we are always talking about infrastructure for producers and on the supply side*." This led some institutions to look for "*creative infrastructure investments,"* finding unique solutions and strategic partnerships with local suppliers to invest in and develop needed infrastructure. These investments were mutually beneficial, allowing the institution to meet local procurement goals and suppliers to expand their markets. Institutional buyers felt it would be feasible for them to purchase more local food products with a greater investment in processing infrastructure. Many participants gave specific examples of products they had tried to source locally but had not because there were no lightly processed local options for these products. For example, one buyer discussed their interest in purchasing local "*butternut squash that is already peeled*" and had the seeds taken out. However, they had not been able to identify an existing local source or cultivate a new one due to the lack of processing infrastructure in the region.

This theme identifies a clear problem stream, labor shortages, affecting regional food systems and institutional foodservice operations. It also simultaneously identifies a potential policy stream, greater investments in food processing infrastructure to alleviate labor challenges and increase local food purchases. The resounding support for infrastructure development among AIs indicates that these organizations and individuals have the potential to become strong policy entrepreneurs advocating for policies that incentivize the development of more regional food infrastructure.

4.2 Local Supply Chains as a Source of Resilience

Many institutional buyers perceived purchasing relationships with local suppliers and the shorter supply chains they created as a source of resilience, motivating institutions to purchase local food products. This sentiment drew on past experiences, largely responding to natural disasters. A comprehensive example comes from one institution's experience during Tropical Storm Irene, which ravaged the study area with floods and power outages during 2011; their institution lost power and was at risk of losing all of their refrigerated and frozen food products. They adapted to this situation by calling on a local distributor that they had an established purchasing relationship with and borrowed a refrigerated truck to stop these products from going to waste. The value of these products was thousands of dollars, and a significant portion of the institution's foodservice budget. This participant went on to explain that they kept a list of emergency numbers and commitments from local companies who would deliver to them or loan them a refrigerated truck in the case of an emergency, concluding their story with, "*I feel like a local food system actually decreases your risk in an emergency*." Thus, while establishing relationships with local producers was often time-consuming for institutional buyers, there was a clear benefit and utilization of the social ties with local producers and distributors. Other institutional buyers had similarly utilized their connections with local suppliers during natural disasters when they were unable to receive products from their broadline distributor as floods disrupted transportation to the area.

In addition to enhancing resilience in the context of a natural disaster, AIs also used their relationships with local suppliers to address other issues within the larger food system. One particularly salient example is the use of local purchases to adapt to food safety recalls. The purchaser explained that when there was a recall of a product from a large producer, romaine lettuce, in this example, they would go to "*alternative sources*," which "*made the case for...more localized purchasing for these items*." This gets to the heart of an essential component of resilience, functional redundancy. Functional redundancy means having multiple actors perform similar roles within a system. The purchaser explained this as the "*resiliency of having some different options*." Another institutional food purchaser summarized the sentiment at the core of many of these experiences, stating, "*I have definitely seen there be resilience- more resilient food systems because of a strong local food system*." Institutions were able to rely on local suppliers largely due to the mutually beneficial, close personal relationships they had invested in creating, in addition to their proximity to these businesses.

For the potential policy stream outlined above, this belief that local food systems are more resilient to shocks, coupled with the greater national support of local foods since the pandemic, could be utilized to generate political support for AIs' preferred policy initiatives. Thus, policy entrepreneurs at AIs have a window of opportunity to support new policy initiatives, capitalizing on the national mood and recent supply chain disruptions.

4.3 Purchasing Commitments

Focus group participants identified purchasing commitments as a practical method for enhancing purchasing relationships between AIs and local suppliers. These commitments solidify trust and help develop strong, mutually beneficial relationships. One focus group participant elaborated on why this trust-building process is so essential, asserting, "*working for a large corporation, a lot of time people are initially skeptical, and they want to say are you guys really going to follow through with that?*" Making these purchasing commitments ensures that institutional buyers will follow through on what they say they will purchase and increases the consistency of markets for suppliers. In addition, these commitments build trust and enhance the social ties between AIs and local suppliers. As noted in the previous section on local supply chains as a source of resilience, AIs utilized these social connections to overcome challenges within the food system and during emergency scenarios.

Institutions also benefit from engaging in these purchasing commitments. For example, one school buyer explained how their purchasing commitments facilitated their Harvest of the Month program, which highlights local, seasonal products. By making purchasing commitments in advance, they were able to coordinate with their local distributor to source the products they were interested in highlighting, were familiar with, and could efficiently process at their facilities. In addition, by coordinating with producers, institutions could source local products they enjoyed working with instead of adjusting menus to incorporate unfamiliar and potentially difficult to sell local products. One institutional buyer explained the benefit of this process, stating, "*you're not going out and reaching for new foods; you're working on things that the students are already eating, and comfortable with, and your team is already comfortable producing.*" Some institutions even went as far as to coordinate with farmers during the crop planning season to ensure the availability of these products. This also helps suppliers identify a committed and viable market for their crops before investing in the planting, growing, and harvesting processes.

When developing these purchasing commitments, it was crucial to have "*refined details in pounds per month.*" AIs had to develop a greater understanding of their supply chain, facilitating more thorough tracking of metrics related to their foodservice operations, to effectively use purchasing commitments. Tracking local food purchases benefitted institutions that used these metrics for marketing their products. This tracking also provided other benefits, as one participant explained: "*the metrics that we are able to track through those programs; academic partnerships, sponsorship and those kinds of things come about as a result of that work*." Therefore, institutions could justify the time associated with initiating tracking procedures because they provided tangible benefits and allowed institutions to use purchasing commitments with local producers effectively.

4.4 Strategic Partnerships

Throughout the four focus groups, participants stressed the importance of relationships within the regional food system. One particularly widespread concept emerging from these conversations was the importance of developing strategic partnerships and some basic principles for how to identify potential partners. Participants talked about creating strategic partnerships with both suppliers and other institutional buyers. Participants used such strategic partnerships to overcome issues related to "*mismatches of supply and demand,*" working with suppliers to increase production volumes for products they were interested in sourcing locally and regularly used in their operations. Purchasing commitments, in this case, were a helpful facilitator for establishing these strategic partnerships so that institutions could source their desired products locally. Another way to facilitate these partnerships was through "*creative infrastructure investments*." One participant provided an example where a hospital looking to enhance its local procurement and support its local producers loaned a supplier money to invest in infrastructure that would help them meet institutional demand.

Strategic partnerships among various types of AIs were also used to support local procurement efforts. Engaging with other institutions was a way to learn from professional peers involved in similar efforts while simultaneously looking to "*see where there might be some collaboration opportunities*." One participant emphasized the importance of "*realizing the power of cross-sector work for institutions, and creating that year-round demand, using the different institutions from healthcare to corporate to campuses.*" Through these strategic partnerships, AIs can come together to leverage their substantial collective purchasing power. Maintaining year-round product demand has been a challenge for some local distributors, and working on generating consistent demand increases the feasibility of investing in some of the critical infrastructures that institutional buyers so adamantly want and need.

Throughout conversations about developing strategic partnerships, many participants also highlighted the importance of knowing about their communities' resources, institutions, and suppliers. Without this knowledge, it was challenging to assess and identify potential partnerships. Asset mapping was identified by multiple focus group participants, including technical assistance providers, as a helpful tool for better developing a greater understanding of potential partners within the region. One participant gave an example of the application of this method. They described using this process at a school with limited capacity for scratch cooking to identify potential partners in the region that had

the capacity to process local food products, helping the school avoid the substantial upfront costs required to update their own facilities.

5 Discussion

Although we conducted this research just prior to the onset of COVID-19 in the U.S., the ongoing challenges within the food system have only increased the relevance and applications of these findings. The study findings drawing on Kingdon's MSA approach suggest the potential convergence of problem, policy, and politics streams creating a policy window around local food sourcing by anchor institutions (Figure 3), as well as two potential ways to increase local procurement at AIs: 1) utilizing the current window of opportunity to support policies that incentivize the development of regional food processing infrastructure, and 2) using the practical methods and tools identified in this research to enhance local procurement efforts at the institutional level.

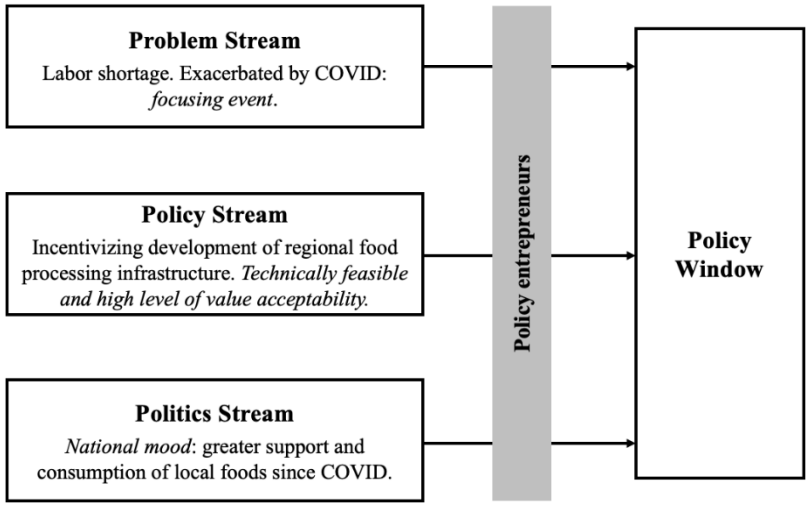

Figure 2. Anchor institutions and local supply chains in the current policy window.

AIs identified labor shortages as a substantial challenge for their foodservice operations (problem stream). Institutions with seasonal demand, like universities and schools, especially struggled with staffing at the start of each school year when they had to hire many new employees in a short period. These results are from data collected before the ongoing 'labor crunch,' which has exacerbated labor issues in many sectors throughout the U.S. economy, including the foodservice industry (Buzalka, 2021; Smith and Page, 2021; Blank, 2020; Hobbs, 2020). Adding to the challenge institutional foodservice operations face, many institutional buyers' primary distributors also experienced shortages of common food items during the COVID-19 pandemic (Cunningham et al., 2021; Smith and Page, 2021).

Fortunately, focus group participants also highlighted a potential solution to these issues (policy stream): greater development of infrastructure of the middle, principally to increase food processing capacities within regional food systems. This infrastructure would make it more feasible for AIs to increase local procurement by reducing the labor required to process local foods. Policy solutions that incentivize investment in regional food processing infrastructure would reduce the labor pressure on institutions that purchase local food products while simultaneously supporting the development of local food systems. These localized food systems support regional economies and enhance food system resilience, as noted by focus group participants and previous literature (Marocchino et al., 2020; Fardkhales and Lincoln, 2021).

The third and final component in Kingdon's MSA is the politics stream, meaning there must be a willingness to enact policy changes among policymakers and the broader public for actual change to occur. AIs themselves may contribute to the politics stream, using their influence as large economic forces and employers within their communities to shape public debates and policymaker priorities. The focus group findings indicate that institutional foodservice administrators understand conceptually and from experience that short, local supply chains are a source of resilience within the food system. Although the support for this assertion drew primarily on experiences during natural disasters like Tropical Storm Irene, more recent findings demonstrate that short, local food supply chains have been a source of

resilience in the novel and unprecedented context of COVID-19 (Cunningham et al., 2022; Marocchino et al., 2020; Fardkhales and Lincoln, 2021). These beliefs, coupled with the 'national mood' that increasingly supports local foods, can be leveraged to influence policymakers to adopt new policies that support local food systems (Richards and Vassalos, 2021; USDA Economic Research Service, 2021; Food Insight, 2021).

In addition to illuminating the potential for policy change, the focus group findings also identified tools and methods that have practical applications for outreach providers and institutions hoping to further their local procurement efforts. These findings identified purchasing commitments as an important method for enhancing trust and establishing mutually beneficial relationships. Purchasing commitments ensure producers that it is worth investing the time and energy to sell to institutional markets, providing them with consistent and stable purchasing partners. While these commitments were a way to incentivize farmers to produce in the bulk quantities desired for institutional markets, AIs also benefitted from these arrangements. As a result of these purchasing commitments, AIs were able to work with farmers during their crop planning season to encourage farmers to plant the varieties and crops they were most interested in purchasing, had familiarity with, and were able to process efficiently.

Finally, the importance of strategic partnerships was a forceful and recurrent theme within the research dataset. AIs suggested developing and using strategic partnerships with suppliers to support and incentivize infrastructure development. Partnerships between AIs and vendors are well-documented in the existing AIs literature, while less attention has been paid to the role of cross-sector collaboration among institutions (Becot et al., 2016; Conner et al., 2011; Feenstra et al., 2011). Cross-sector collaboration among different types of AIs, specifically hospitals and educational institutions, can create year-round product demand.

6 Conclusion

This research drew on the experiences of a wide range of AIs and identified two complementary paths to enhance local food procurement efforts, making the findings applicable to a broad audience. The MSA indicates that there is a window of opportunity to enact meaningful policy changes, but this analysis does not have a mechanism to reflect the many public health decisions that policymakers have had to make since the start of the COVID-19 pandemic. The pandemic is a clear focusing event, but the potential for meaningful policy reform in the wake of this event may have been somehat diluted because of the numerous issues the pandemic has caused and revealed.

It should be emphasized that this research was conducted just before the COVID-19 experience and did not reflect how this experience has shifted institutional foodservice providers' perspectives. Fortunately, these findings have been supported by research conducted during the pandemic, demonstrating that short, local supply chains were a source of resilience for institutions and food systems more broadly (Cunningham et al., 2022; Marocchino et al., 2020). Additionally, the need for more infrastructure investments has only become more pressing. Foodservice professionals working as part of the Kendall Grant AI collaboration indicated the continued need to develop infrastructure of the middle, given the ongoing labor shortages (Brandon Williams, personal communication, June 30, 2021). Whether by enacting policy changes or adjusting institutional practices, this research demonstrates defined and realizable ways to enhance local procurement at AIs.

Disclosure statement

The authors report that they have no conflict of interest.

Funding

This work is supported by funds from Award Number 2021-67024-34436 from USDA National Institute of Food and Agriculture, as well as funds from the USDA Agricultural Research Service Food Systems Research center at the University of Vermont and USDA Hatch formula funds administered by the Vermont Agricultural Experiment Station.

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