Fostering Multiple Goals in Farm to School

Abstract: In the United States, the farm to school movement has recently spread from fringe and grassroots to mainstream. As schools expand their participation, there is a rapidly growing demand to scale up food distribution. Yet, in the rush to support “farm” and “school,” the supply chain, made up of the aggregation, processing, distribution, and logistics services, has been overlooked. Paying attention to the ways in which the standard model is incongruent with goals of the movement incites possibilities for new types of supply chain that reorient from profit and efficiency toward regional economy and transparency. This article elucidates a cooperative framework consisting of three primary aims: sustain the values of the movement; successfully scale up food distribution, expanding access to local, nutritious food; and support the negotiations needed to achieve individual and collective goals. This university/community collaboration evinces the great potential for cooperatives to play a significant role in future supply chain partnerships.

Keywords: farm to school, cooperatives, food distribution, supply chain, university/community partnerships

Attracting Interest in Local Food

On a brisk day in February, in the small town of Onalaska, Wisconsin, the elementary school cafeteria buzzed. Rumors had spread that something special was happening, and it involved the unlikely context of tasting some new vegetables at lunch. Posters of the farmers decorated cafeteria walls, and school nutrition staff and grant coordinators informed students about where the veggies were grown and how they got to their school. Love of vegetables, though, was not the sole reason for the students’ enthusiasm; serving food would be the student’s favorite local celebrity: Miss Onalaska, outfitted in her tiara and sash. Food service employees knew Miss Onalaska would prompt students to try the new food, but the real question was, would they like it? Excitement grew as students spied Miss Onalaska handing out food samples—the rumors of her presence had been true after all!

The goal of this tasting was to introduce two locally grown root vegetable blends—the Winter Moon Blend (carrots, butternut squash, beets, and potatoes) and Wisconsin Potato Fusion (golden, red, and russet potatoes). The vegetables were harvested in the fall, frozen, and then distributed to cafeterias to serve roasted and seasoned. This event mingled the hopes of many different organizations. The professionals, cautiously optimistic, enjoyed students’ reactions to Miss Onalaska, but anxiously anticipated student responses to the blends. For many students, this was the first time they had ever seen or tasted some of these vegetables, especially beets, and their reactions demonstrated the experiment’s success: “It’s so sweet!” “This is the best thing I’ve had in this lunchroom!” The local root vegetable blends, aside from being delicious, provided an entrée to educating students about healthier food, its origins, and how it becomes available to them. And it showed that a nonconventional supply chain is not only possible, but might be preferable over the typical suppliers of school food.

The root vegetable blends sampled by students in Onalaska were part of a larger farm to school project coordinated by the Center for Integrated Agricultural Systems (CIAS) at University of Wisconsin–Madison and Fifth Season Cooperative, funded by a U.S. Department of Agriculture (USDA) Specialty Crop Block Grant: “Wisconsin’s Harvest Medley project.” We, the three authors, were involved with this project in myriad ways. Alfonso, Lihlani, and Alexandra, respectively, envisioned, implemented, and studied the project.

In the United States, the farm to school movement has recently spread from fringe and grassroots to mainstream. During the 1990s it tapped into multitudinous, existing movements as proponents found a conduit for their goals in organic produce, localism, and environmentalism. Farm to school was appealing to many hoping to strengthen regional economies, support family farms, and connect students to agriculture and the environment (Beery and Joshi 2007). People came together, channeling their advocacy into many iterations of “farm to school.” As the movement gained momentum, existing and new organizations took up the cause. Within a few years, policy makers, seeing potential in the movement, fostered farm to
school goals and outcomes for organizations becoming involved, and, importantly, they did not prescribe “how” those organizations should achieve those aims.

Farm to school is being institutionalized at the federal, state, and local levels. At the federal level, Congress provided first-time mandatory funding of $5 million annually for a farm to school grant program as part of the Healthy, Hunger-Free Kids Act of 2010. During the first few years of this program, demand was more than five times greater than available funds. Therefore, as part of reauthorization of the 2015 Child Nutrition Act, the 2015 Farm to School Act includes an increase to $10 million annually (National Farm to School Network 2016a). According to the USDA Farm to School Census, 42% of surveyed school districts participate in farm to school activities (Farm to School Census 2016).

At the state and local levels, thirty-nine states and Washington D.C. have institutionalized farm to school practices in legislation, and many schools are building farm to school practices into their wellness policies (National Farm to School Network 2016b). Schools are under top-down and bottom-up pressure to participate. As schools expand their participation from school gardens and occasional field trips to local procurement and integrating corresponding education into curriculum, there is a rapidly growing demand for healthy, local products, and, thus, a need to scale up local food supply chains to provide students with access to fruits and vegetables (Day-Farnsworth and Morales 2011).

To better understand the challenges and opportunities of increasing the amount of locally grown food available to institutions, we have to take a deeper look into the food supply chain. Yet, Farm to School has historically paid attention mostly to “farm” and “school,” and the supply chain, made up of the aggregation, processing, distribution, and logistics services, is often overlooked. The current models for farm to school

FIGURE 1: Madeline Joy Anderson, a.k.a Miss Onalaska, preparing to serve the locally grown root vegetable blend.

PHOTOGRAPH BY HARVEST MEDLEY PROJECT © 2013
supply chains are ill equipped to keep up with increasing demand; many medium and larger school districts face barriers in terms of volume, processing, and distribution needed for their scale of operations. Wisconsin vegetable growers have been eager to sell to institutions but have lacked access to those markets and connection across the supply chain.

Likewise, food services professionals and producers have needed an intermediary, or “broker,” to provide the missing links between farm and school. In order to “scale up,” local farmers need connection to local markets by working with the existing players to integrate into a supply chain with processors and distributors. Yet, conventional supply chains in the United States pose a serious threat to the values of the movement as they are designed to prioritize profit and efficiency over regional economy and transparency. Moreover, processors and distributors do not have incentives or precedent for working with small and mid-size farmers. These conventional supply chains, currently the default in the United States, focus first and foremost on providing food at affordable prices to their customers, and are less interested in the specifics of where or how food is grown. Working with other parts of the supply chain can pave the way for alternate approaches to supplying schools and other institutions with local food.

Here we tell the story of a feasible model to address the oft-forgotten to in the farm to school movement. The Wisconsin Harvest Medley project’s multi-stakeholder value-based cooperative supply chain enables schools to access larger amounts of minimally processed products by reconstructing existing habits of organizational partners, whose interests are often in conflict, toward mutually beneficial goals and subsequent mutually acceptable business relationships. In the following pages we hope to illuminate the key features of this project: a depiction of successful university/community partnerships; a path toward sustaining the values of the farm to school movement; and expanding access to local, nutritious food. Peering into this black box helps us understand the different ways a beet harvested on a small farm in the Kickapoo Valley of Wisconsin might travel fifty-two miles through the rolling hills of Wisconsin’s Driftless region to become part of the Winter Moon Blend served in the Onalaska school lunchroom.

New Directions from the Driftless

Wisconsin, and the surrounding Midwestern states, proved an ideal place to pilot new models for farm to school due to a wide range of preexisting conditions. This region is known for its agriculture and various forms of institutional and organizational support. According to the USDA, Wisconsin has the fourth-most agricultural cooperatives in the country and five co-ops in the state are among the largest in the nation by business volume (White 2014). The state is also a leader in organic products. As written in Exploring Economic and Health Impacts of Local Food Procurement: “Despite having limited soil quality and a short growing season, this region has transformed itself into one of the strongest centers of organic farming in the United States” (Lynch et al. 2015). This recently published national report spotlighted Southern Wisconsin as...
one of five regions at the vanguard of the local, organic food movement.

In light of this, it comes as no surprise that Wisconsin is also home to many independent farms and established markets for direct farmer-to-consumer transactions. Madison, the state capital, lays claim to the largest produce-only farmers market in the United States, and Community Supported Agriculture (CSA) is so embedded in the culture that state health care plans include reimbursement for CSA shares as part of “preventative health.” These arrangements reduce the distance food travels, connect consumers directly to their food, preserve farmland, and support the local economy. Yet, as mentioned previously, the demand for local food has expanded from individual consumers to include institutional markets (Day-Farnsworth and Morales 2012). With these crops already being produced in substantial volume, the state of Wisconsin is well positioned to enact various modes of scaling up. In qualitative research terms, one could say that choosing this region falls into “bellwether” sampling for the case; due to this convergence of features, the study was situated in a context favorable to its success.

One of the noteworthy features of this project is that the initial grant grew out of and reflected relationships developed in support of mutually beneficial goals. Unlike many research projects that are dreamed up off-site and then “helicoptered” into a community, this project was co-produced by CIAS, public school food services, and Fifth Season, an agricultural cooperative committed to the development of an economically sustainable local food system. Partnering with innovative supply chain entities, such as a multi-stakeholder local foods cooperative, allowed for accessing, aggregating, and distributing produce from a variety of scales of producers, while still meeting the high-volume needs and safety standards of schools. Furthermore, public sector facilitation of the project provided necessary neutrality to work with multiple industry entities at varied scales. This organizational style emphasizes dialogue and equal voice, opening space for members to form and reform the process. This is a crucial component in any values-based model where designs are developed in relation to holistic needs, rather than to “test out” predetermined formulas.

The goal of this project was to increase the volume of local vegetables served in Wisconsin school lunchrooms. Accomplishing this required not only aggregation, distribution, and logistics, but also relationships between the different entities that provide those services. Bringing locally grown products into schools on a large scale depended on strong working relationships to overcome some inevitable logistical obstacles. For instance, coordinating with multiple local farmers to aggregate, process, and distribute product required a responsible entity to work on building relationships across the supply chain.

CIAS, which concentrates on the socioeconomic of existing food systems and the development of alternative food systems, took on multiple roles to facilitate these relationships. CIAS staff did the “weaver” work: “to create and nurture linkages across activities, sectors, and groups”; and “builder” work: “to design and construct more promising ways of producing,
marketing, and experiencing food” (Hinrichs and Lyson 2007: 7).

On the ground, these tasks are not as fancy as they may sound, but are no less important. These roles mostly comprise administrative tasks like making phone calls, scheduling meetings with partners, reaching out to include new partners in the project, and guiding dialogue toward everyone’s requisites. This kept the locus for decision-making deeply vested in meeting a variety of needs and priorities, listening to often overlooked methods for improvement—from affordability and timeliness to more institutionally specific goals.

For farmers, there was a need to make use of cosmetically imperfect seconds, the off-grade mishapen fruits and veggies not easily sold into retail markets. In the United States roughly 50% of fruits and vegetables grown go to waste, and most losses occur at the “farm end” (Berkenkamp and Nennich 2015: 11). Recent reports from Minnesota indicate that crop loss can be as high as 30% for carrots and squash due to cosmetic appearance (ibid.: 3). These oddly shaped products are not currently available through most existing school supply chains because USDA grading standards largely dictate the decisions of the produce industry, and since these unsatisfactory vegetables are not considered “Grade A” they are often disregarded (ibid.: 9). Furthermore, cosmetically imperfect seconds can have higher production costs as their irregularities make them harder to move through sorting and processing technologies.

Concomitant with this, farmers are usually not able to negotiate their prices. Conventional supply chains are characterized by long-standing relationships between national food industry entities that are largely dependent on multi-year contracts between school buyer’s and large logistical organizations, the distributors or food service management. These contracts can make it difficult for schools to purchase local food if their distributor doesn’t offer it. Oppositely, contracts from schools, or school districts, may have minimums for procuring local food, forcing a food service management company or distributor to offer more local food. In this system, regularly marked by volatile relationships, and, often, aggressive competition (Skipper and Morales 2014: 3), farmers are not able to vie for their economic benefit. Small and mid-sized producers who sell to commodity or institutional markets are typically “price-takers,” in that they end up being forced to submit to terminal market pricing (ibid.: 5). This is true even if those prices do not cover their cost of production. Thus, the potential benefit to farmers who can market cosmetically imperfect products is significant if the model can ensure farmer profitability. In this case, one marker of the Harvest Medley blends’ success is their incorporation and use of cosmetically imperfect seconds.

On the other side of this supply chain are the particular needs of schools’ infrastructure, requirements, and goals. This includes feasible designs to meet nutrition-based policy requirements as well as farm to school goals such as spending a certain amount of the food budget on local products. Of primary consideration, contemporary food service in schools is dominated by “heat-and-serve” prepared food. Meals are not wholly prepared on-site since few schools are equipped with full kitchens and there is little or no funding allocated for the labor of cooking (Gaddis 2014). Consequently, there is a high demand for a continual supply of pre-cut and ready to roast veggies.

Farm to school also encompasses educational initiatives, so there is a need for promotional materials to accompany locally grown, “identity preserved” products used to teach young eaters about where their food comes from. Most school food distributors do not typically provide an explicit statement of product origin (such as the state or farm name). However, this lack of information does not pose a problem unless school staff are trying to feature products as “home-grown” or “local.” For locally grown products moving through a conventional school food supply chain, this becomes a serious concern because they can easily lose their identity, and with it the curriculum enrichment opportunity.

Schools looking for greater transparency on product origin and growing practices should also be aware of these less transparent activities in conventional supply chains. Embedded in our model are processes and ensuing relationships making it easy to communicate product origin and other information such as particular growing practices,
which are the pieces of information needed to provide accurate educational materials. This model supports school needs for both convenience and transparency. Schools receive products without altering their current infrastructure, and teachers and students can access educational materials aligned with their learning objectives.

After identifying the objectives of the Harvest Medley project, the next step was to connect the dots to build a supply chain. We needed partners that could provide key features necessary to scale up while committing to the aforementioned needs of farmers and schools. This would mean finding producers, processors, and distributors interested in participating, taking on collective goals, and connecting the various organizations by linking the process from start to finish. The project, thus, sought out partnerships with existing and emerging aggregators and food hubs of Wisconsin products, as well as processing facilities and distributors committed to working with local and regional produce.

Partnerships included Sno Pac Foods, a family-owned and -operated organic farm and processing plant that could chop, package, freeze, and provide frozen storage for the vegetable blends until they were transported to the schools. Reinhart, the distributor, also became a key member in the cooperative. The distributor performed critical tasks of transporting and selling the product to schools, who had easy access to these vegetable blends on the Reinhart order guide. With all these partners coming together to discuss their needs, the emergent system was flexible and able to incorporate the goals of multiple stakeholders. Focusing on reorganizing processors and distributors in the farm to school supply chain—the “invisible” process—allowed larger schools and districts to access fresh and locally grown vegetables, and the total number of students who benefited from such products increased significantly.

Thinking deeply about the relationships and roles of producers and distributors is not common practice in farm to school, mostly because their ways of operating are often taken as a given and unquestioned. Because these traditional ways of operating are often incongruent with the goals of farm to school, small-scale models involve a farmer delivering fresh vegetables directly to a school, which is often impractical for several reasons. In addition to the aforementioned limits of schools’ processing capabilities, there are infrastructural constraints. In states such as Wisconsin that have a shorter growing season, freezing locally grown fruits and vegetables is an important method for making locally grown food available out of season. The absence of suitable food preservation infrastructure at a reasonable price constrains this storage opportunity. Moreover, certain modes of transportation and storage can affect nutritional qualities (Edwards-Jones et al. 2008). In these small-scale models, there are no organizations in the middle to take on these important tasks. Therefore, bringing producers and distributors into the supply chain addressed the aforementioned needs while providing the key features needed to scale up. By doing so, this project transcended the constraints posed by a lack of equipment, infrastructure, and preparation and preservation technologies needed to scale up without forgetting the needs of farm to school and the individual stakeholders.

**Fifth Season: A Multi-stakeholder Cooperative**

In reading the word “cooperative” throughout this article, perhaps you have considered the co-ops you know of or belong to. Maybe you buy your groceries at a local food co-op, or have a friend who goes to a food co-op for their organic gluten-free muffins? Yet, the multi-stakeholder model is slightly different. Whereas consumer or worker cooperatives, such as food co-ops, have members of the same position economically—worker co-ops organize members around “labor” and food co-ops organize members as “consumers”—multi-stakeholder cooperatives represent separate organizational entities who occupy heterogeneous economic positions. In this newer variation on the cooperative structure, member organizations can take any form. They could be limited liability corporations, such as Reinhart Foodservices, LLC, or another type of co-op, such as the marketing co-op Organic Valley (UW Center for Cooperatives 2016). Reinhart, for instance, orients around shared goals outlined by Fifth Season while simultaneously staying committed to the company’s prioritizing of profitability.

The cooperative structure helps facilitate collaboration among members with conflicting economic interests, such as Reinhart and the farmers who both want maximum profit. By
agreeing to the cooperative framework, they become interdependent; joint success requires mutual profitability. In this case, accountability between supply chain sectors led to an increase in communication and trust at the individual level, which created transparency at the organizational level. Thus, the model is unique in that trust and accountability are inherently built into the organizational structure to enable stakeholders to negotiate conflicting interests through their joint commitments.

Fifth Season acted as a framework to address the specific needs of the stakeholders and their community, while ensuring undergirding goals of the farm to school movement. Fifth Season brings together organizations aimed at building a regional food system driven to “support economic, environmental, social, and nutritional wellbeing” (Fifth Season 2016), with particular emphasis on fair pricing to farmers. They seek to develop a network that can support these goals while allowing everyone to meet their own economic interests. By working with Fifth Season, we were able to bring diverse stakeholders into an egalitarian process and an organization already built around values coinciding with farm to school. As the name implies, a multi-stakeholder cooperative is made up of multiple stakeholders organized around a broadly defined goal. The interdependencies of their competing interests unify them, counterbalancing the challenges of meeting the members’ inherently different needs (UW Center for Cooperatives 2016). By bringing the supply chain under this umbrella, producers, food processors, distributors, institutional buyers, and workers can all be member/owners, sitting at the same table.

In order to scale up farm to school without losing the ethos of the movement, CIAS worked to develop a product and process that engaged the whole supply chain. Partnering with Fifth Season meant all partners were brought into their clearly defined mission. Their cooperative structure balances inequalities in power dynamics to produce mutual accountability between members, and supports the interorganizational negotiations needed to achieve individual and collective goals. Fifth Season’s model is changing the culture of doing business within an otherwise conventional food supply chain, and is normalizing a new approach rooted in accountability and transparency across sectors. This model elucidates how relationships between farmers, processors, distributors, and schools can build community and regional food systems for successful farm to school programs, underscoring the potential of cooperatives to play a significant role in future supply chain partnerships.

One way to measure success is by the customer. In this case, the customer is the school system and the students it serves: the end of the supply chain. The Harvest Medley project proved wildly successful in providing local, nutritious, and tasty food as well as materials for understanding how that food arrived and where it came from. Wisconsin schools involved in the National School Lunch Program feed approximately a half-million children every day (Department of Public Instruction 2016). Yet, schools involved in farm to school are struggling to get enough local, farm fresh products to students. During this project, some 40,000 pounds of each of the vegetable blends was processed and sold to institutional buyers. Moreover, the blends are still available through Fifth Season and Reinhart; their robust relationships are no longer in need of CIAS brokerage. Beyond the food itself lies a hope that the movement will provide learning opportunities for students to better understand the food system. Due to the transparency in this model, educational experiences and materials regarding local produce were easy to create, which—in turn—fostered student learning across the different modalities with respect to farm to school educational objectives.

As much as farm to school requires the support of the visible actors such as food service directors and community advocates like Miss Onalaska, it also requires the less visible supply chain players and relationships. We hope to offer up our success not as prescriptive, but to inspire a much needed restoration of economic equity and environmental awareness, and to indicate some ideas for how interested groups might proceed. In this case, striving toward “practical knowledge” (Hoch 1994: 105), knowledge that would help implement and achieve our goals, was of utmost importance. In future projects, regardless of how roles are taken up or conceptualized, we urge that a focus on applied work that “builds” and “weaves” remains visible, supported, and funded.

What is significant here is how this case utilized practical knowledge to develop relationships across the supply chain, harnessing the multi-stakeholder cooperative process as a catalyst for positive food systems change. Prioritizing the connecting parts in the supply chain meant identifying
which structures would support or undermine the commonly held principles. This focus brought attention to the ways in which individual organizations work best within a collective. The resultant assemblages comprised the necessary network to scale up farm to school. This study provides a powerful example of how cooperatives, and the dialogical process within, can promote and maintain farm to school as it expands. Taking a deeper look into the to in farm to school shows the importance of relationships between the different supply chain stakeholders—and the power of cooperatives to optimize such relationships and build a community around them.

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