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Local Food System Toolkit Series #1: Developing a Worksite Food Box Program

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Local Food System Toolkit Series #1: Developing a Worksite Food Box Program

Abstract

This is a guide for creating a program for pre-packed food boxes delivered weekly and picked up by employees at their workplaces. It is marketed to employers, such as businesses, universities and hospitals who want locally grown food more accessible for their employees.

Disciplines

Agribusiness | Agriculture



LOCAL FOOD SYSTEM TOOLKIT SERIES #1

Developing a Worksite Food Box Program

This is a guide for creating a unique program that offers pre-packed food boxes delivered weekly and picked up by employees at their workplaces. The program is marketed to employers, such as businesses, universities or hospitals, who want to make a regular supply of locally grown food more accessible for their employees.



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On the cover: An example of what might be included in a weekly worksite food box from the Iowa Food Hub.

Toolkit #1: Developing a Worksite Food Box Program

INTRODUCTION

This toolkit is part of a series designed to share the knowledge gained from local foods work and research done in Northeast Iowa by Iowa Food Hub (IFH) and Iowa State University Extension and Outreach (ISUEO). This is the first of several toolkits in the series.

The work described in the toolkits suggests proven ways to further develop systems of local food aggregation, distribution and volume sales in northeast Iowa. All toolkits function as case studies and though they are not necessarily transferable to all situations, they provide examples of models that could be applied in many other communities. ISUEO has an education, outreach and research mission. As a result, ISUEO can assume risks that average businesses may be fearful to take on because the financial downside is so great. This allows ISUEO to ground-test innovative ideas for local food aggregation and distribution, and share findings in a way that could reduce the risk of start-up for other similar businesses later on.

Toolkit #1 provides guidance for creating a unique workplace program as a means of marketing and distributing local food. The Worksite Food Box program offers healthy, pre-packed food boxes that are delivered weekly and can be picked up by employees at their workplaces. Marketing of the program is aimed at employers, such as businesses, universities or hospitals, who want to make a regular supply of healthy food more accessible for their employees.

This toolkit describes:

- The benefits of food hubs and of workplace food box deliveries in general;

- The structure and functions of the Worksite Food Box Program as implemented by Iowa Food Hub (IFH) in Decorah, Iowa; and
- Lessons learned and guidance in implementing a similar program, including a review of program costs and revenues, labor needs, marketing strategies, infrastructure choices, and more.

WHY AGGREGATE AND SELL LOCAL FOOD?



More and more Iowa farmers are choosing to sell their products locally. In 2007, almost 3,000 farmers in Iowa sold \$16.5 million of local products directly to consumers, compared to 2002 when 2,455 farmers sold \$11.6 million of local products via direct sales.¹ Iowa boasted 229 farmer's markets in 2013, ranking among the top ten states identified in the 2013 USDA National Farmer's Market Directory.² Community Supported Agriculture (CSA) programs, providing shares of farm produce directly to prepaid customers, numbered 75 in Iowa in 2014.³ Farmers are choosing to shorten the supply chain between themselves and their consumers because it allows them to keep a larger portion of each dollar that consumers spend. Establishing strong relationships with customers, and telling them the story of the farmer and the farm, also can make consumers more willing to pay a higher price for local food.⁴

However, many opportunities to increase local food sales have yet to be realized. Farmers located in rural areas, far from metropolitan centers, often find direct marketing to be difficult and expensive. With long drive times to reach city customers, and the numerous hours of labor needed to sell products at farmer's markets, costs can add up quickly. After several years of putting in the work necessary to direct market to individual consumers, farmers often start looking around for other types of marketing opportunities which would allow them to spend more time on the farm scaling up production. Sales to volume food buyers such as restaurants or farm-school-programs, especially those that are motivated to source locally, start to look more appealing because of the reduced marketing costs and transaction times. At the same time, smaller farmers may not be able to accept the lower prices or provide the quantities that traditional wholesaling would require.

For this reason, more than 260 U.S. businesses and organizations have launched **food hubs**. The U.S. Department of Agriculture defines a food hub as "...a business or organization that actively manages the aggregation, distribution and marketing of source-identified food products, primarily from local and regional producers to strengthen their ability to satisfy wholesale, retail and institutional demand."⁵ Some food hubs sell local products from multiple farmers directly to consumers. Others sell to volume buyers, such as institutions or restaurants, and to wholesale markets. Many have chosen to do both.⁶ Serving both household and wholesale buyers can be appealing because it allows a food hub to sell products at a wider range of price points, work with a mixture of large and small farmers, and reduce overall risk.

A 2013 Leopold Center evaluation of local food system efforts found that 74 volume food buyers purchased \$8,934,126 of local foods in 2012. The small sample population used in this evaluation reported a total of 36 new jobs related to local foods created in Iowa in 2012.⁷ These are the kinds of sales opportunities that a food hub can help small Iowa farmers to access, because it can make product available in larger volumes than a small farmer could offer by him- or herself. Other services often provided by food hubs include product transportation logistics, marketing services, product warehousing, and more.⁸

ABOUT ALLAMAKEE NEW BEGINNINGS AND IOWA FOOD HUB

- The Worksite Food Box Program profiled in this toolkit is operated through Iowa Food Hub (IFH). The Iowa Food Hub, based in Decorah, is a local food aggregation and distribution project sponsored by Allamakee New Beginnings, a 501c3 organization dedicated to reducing the effects of poverty in northeast Iowa. Iowa Food Hub unites the mission and vision of its partners by managing the aggregation, distribution, and marketing of source-identified food products to connect farmers to families. IFH is a joint project of the Northeast Iowa Food & Fitness Initiative and its core partners: ISU Extension and Outreach, Luther College, Northeast Iowa Community College, Upper Explorerland Regional Planning Commission and the Community Foundation of Greater Dubuque.

IFH is an **educational, research-driven** food hub. IFH and its partners have been successful in securing private and public grant funds to develop its business model as an example for other organizations and to offer specialized technical assistance to farmers and food producers.

Primary activities include:

- Worksite Food Box program;
- Delivery services for hire;
- New market development and research with a focus on schools, institutions and grocery stores;
- Local food procurement and sales.

Similar to the workings of a demonstration farm, IFH advisors and staff conduct research. What they learn is transferred through educational programs and materials for the farmers or other food hub developers to show what works and doesn't work. Food hub developers and current food hub managers can apply this new knowledge to their businesses with less risk than if they had done the research themselves. IFH programming focuses on small and medium-sized farm viability, food access and equality, local economic development, job creation and retention, beginning and established farmers, and food system research and education.

CASE STUDY: A MULTI-FARMER WORKSITE FOOD BOX PROGRAM

IFH's Worksite Food Box Program offers an experimental model for aggregating local farm products and selling them directly to consumers via their workplaces. Together with Iowa Food Hub, Nick McCann of Iowa State University Extension and Outreach helped conduct the initial roll-out of the program. The Worksite Food Box program now has been completely transitioned to the IFH Food Hub Coordinator who oversees daily hub operations.

The Worksite Food Box program was modeled after a similar program operated by Good Natured Family Farms near Kansas City, which IFH encountered through its connections with the W. K. Kellogg Foundation. IFH's model is unique in three ways:

1. It reaches its consumer customer base through wellness programs operated by employers, such as universities and businesses that wish to promote employee wellness by hosting a drop-off site for boxes of healthy food. Therefore, marketing to institutions is an essential piece of acquiring new drop-off sites and gaining more customers.
2. A website with a "market basket" feature is used for members to choose from eight different specialized types of boxes; for example, a half-box of vegetables/fruit with milk and no meat.
3. Customers pay for their boxes on a weekly basis, not at the beginning of the growing season.

This model is effective and cost-efficient for several reasons:

- Offering different types of boxes and requiring no long-term commitment from customers helps with marketing and appeals to a wide audience.
- No startup capital for purchasing food products is needed after the first week of orders. Customers pay for their boxes a week prior to delivery, and the money then is used by the IFH coordinator to purchase products for the next week.
- There is little risk for the organizer because s/he can purchase produce from a variety of farmers if there is a crop failure in one operation.

How it works

The process for assembling and delivering Food Boxes on a weekly basis works like this:

1. Every week, customers who have signed up to receive a food box are automatically pre-billed for that week's box via PayPal. Because customers can log into their account at any time to change their product preferences, suspend their account, or cancel their subscription, the orders are slightly different every week.
2. The IFH coordinator logs into the IFH web-based ordering system to view the order status for all customers that week. Orders are automatically compiled by the website into summaries of how many shares are needed and what type of shares they are (e.g., milk, eggs, vegetarian). In the beginning, before the launch of the current website, IFH manually processed the orders.
3. The coordinator communicates with farmers regarding the food order for the next week. (Some products already have been secured in advance through production planning with farmers; other products may be ordered in larger quantities less than once a week, kept as inventory.)
4. The following week, products are dropped off at a packing facility by farmers, or sometimes picked up from farms by the distribution truck.
5. The IFH coordinator prints packing slips for each order. Student interns pack the boxes at the packing facility and place them in chilled storage.
6. On the day of delivery, a distribution truck picks up the boxes for all the worksites on a particular distribution route, and drops them off at the work sites.
7. Employees (customers) at each worksite pick up their Food Box order at a specified time. On-site volunteers oversee the box distribution at each site.

The delivery truck covers different routes on two or three different days of the week, so this process occurs on a constant cycle throughout the year.



At the University of Northern Iowa dropoff site, Susan Schwieger (right) talks with local food coordinator Rachel Wobeter.

Creating New Local Food Shoppers

While the experience provided to customers by IFH is much like that of joining a CSA (Community Supported Agriculture) program, the majority of IFH's food box customers are new to local food. By making its food boxes convenient for customers to receive, with workplace drop-offs and flexible week-to-week ordering, it has been able to recruit customers who might not otherwise buy local. In spring 2014, results from a survey of new Food Box customers showed that 91 percent of the respondents had never participated in a CSA (Community Supported Agriculture) program, and 48 percent reported shopping at farmer's markets once or twice per year or not at all. Whether or not customers continue to buy from IFH, introducing them to a healthy, high-quality, local diet is an important part of IFH's mission.

STARTING AND MAINTAINING A WORKSITE FOOD BOX PROGRAM: KEY COMPONENTS

Iowa Food Hub started its Worksite Food Boxes program in 2013. As of January 2014, the Iowa Food Hub was procuring products from 30 to 40 farmers. All products are sourced from within 150 miles of the Food Hub. Most of the contributing farmers are located within a six-county area.

The following key elements factored into the startup of the work site food box program in northeast Iowa. The various sections of this toolkit will provide more detail about each element:

Working with Farmers: Having strong relationships with farmers and being willing to cultivate new relationships in order to diversify the product line has been critical to the Worksite Food Box Program's success. This requires good communication as well as compromises on pricing, pickup and delivery.

Marketing to Worksites and Dealing with Customers: IFH expanded the program by approaching companies and institutional employers as potential drop-off sites. By allowing their employees to pick up Food Box shares at work, these employers provided a way to access hundreds of possible customers.

Financing and Expanding the Operation: Capital was an important consideration for the program, and was part of the reason for choosing a model that requires customers to pre-pay. By choosing the right price structure and by scaling up carefully, the project has generated enough revenue to cover its basic operating costs such as food purchasing, refrigeration and delivery. When deciding when to take on new delivery routes, organizers were careful to calculate potential costs and revenues first.

Infrastructure and Equipment: The Iowa Food Hub was launched with minimal infrastructure, and has acquired what it needed along the way, keeping costs low. Strategies have included renting a truck (although IFH later purchased one) and leasing underutilized cold storage in an existing facility.

Management and Labor: Management and operation of the Worksite Food Box program require taking and consolidating weekly customer orders, procuring products, packing boxes, and delivering the goods. The income from the food boxes covers the labor cost of a truck driver, student interns who pack the boxes, and several hours per week of management time by the IFH Coordinator.

WORKING WITH FARMERS

IFH works primarily with small (less than \$50,000 gross sales) or medium-sized (\$50,000 to \$500,000 gross sales) operations, according to USDA definitions. IFH estimates that half of their farmer-partners in 2013 would have annual gross sales less than \$100,000. To find initial product sources for the Worksite Food Boxes, IFH started by networking with farmers with whom they had established relationships through their other local foods work. The IFH coordinator also makes cold calls to farmers and looks for connections he might have to develop new partnerships.

Currently, IFH does not have a formal or contractual relationship with the farmers who provide its products, although the Food Hub may move in that direction in the future. In the beginning, purchasing was done on a week-to-week basis based on what farmers had available and on what products would

provide a well-rounded, diverse food box for customers. Now, IFH does some advance production planning with its source farms.

Sourcing local food

The majority of IFH's food purchases are made directly from farmers. In choosing producers, IFH found it easiest to start by working with farmers who already are accustomed to wholesale practices. They select farmers who are reliable, maintain good quality standards, and can provide adequate supply. When purchasing from a farmer for the first time, they begin by ordering a small amount of product, and test the relationship before ordering more. It can be helpful to work with farmers whose production practices yield crops that are favored by customers; for example, products that are organic, no-spray, etc. These attributes can be marketed to the customer as an added benefit of receiving a locally-grown Food Box instead of shopping at conventional outlets.

Even with known producers, IFH has learned from experience that produce must be inspected before accepting it. They are now developing a set of quality standards for each product received for sale.

Pricing

Iowa Food Hub works to pay its farmers a fair price, and does so by comparing its purchase prices with wholesale prices being paid by other local buyers. IFH expects to pay prices similar to what a natural food grocery store would pay for wholesale, high value, locally-raised products. For comparison purposes, the IFH Coordinator also looks at prices that conventional outlets like Hy-Vee are paying, although he generally expects to pay more. Beyond earning a profit, IFH finds it important to foster relationships with farmers that are mutually beneficial, as these are the relationships that can stand the test of time.

When providing products to IFH, farmers can choose either to deliver directly to the IFH packing facility or have the items picked up by IFH. IFH currently negotiates a price break in exchange for picking up products directly from the farm; this option is helpful in working with Amish farmers. In the future, the price break will be formalized, and there will be a standard fee deducted from farmers' invoices in exchange for the optional pickup service.

Planning ahead

One advantage of selling local food through an aggregated Food Box Program, as opposed to a more traditional distribution company, is that relatively little initial demand forecasting is needed. That is, because Food Hub organizers do not need to deliver certain products in certain quantities at certain times, it is not essential to create detailed production planning charts with farmers to ensure product availability. The Food Box Program provides a lot of flexibility for farmers, as they can supply produce of their choice to the program. It can even be a way to absorb a surplus of a (good quality, desirable) product that the farmer has not been able to sell through other outlets.

Over time, though, IFH has conducted more production planning with local producers so that they can forecast what IFH is likely to purchase in a given week or month. This improves farmer relationships by



Watermelons await distribution at the Iowa Food Hub.

providing more security, enabling them to plant according to IFH's needs, and ensuring the food hub can obtain various products when it wants them. For example, IFH has begun working closely with greenhouse growers to secure a regular supply of wintertime greens. In the future, the program would like to make advance purchases of winter storage vegetables (such as butternut squash) at the beginning of the storage season, so there is a guaranteed supply of these vegetables over several months. Filling the winter food boxes demands more advance planning with farmers than in the summer due to the scarcity of fresh produce.

Currently, IFH maintains a chart of what it plans to put in each week's food box over the next few months. This kind of planning does not have to be high tech – it's done on a desk calendar in the IFH office. Having a schedule of product rotation for each week helps ensure that customers enjoy variation in their food boxes.

MARKETING TO WORKSITES AND DEALING WITH CUSTOMERS

Iowa Food Hub has developed relationships with several employers who serve as hosts for Worksite Food Box drop-off sites. IFH follows this plan to market the program to institutions:

1. **Find a point person:** Many larger companies or institutions have a wellness or sustainability coordinator or a human resources manager. Sometimes the wellness coordinator position is embedded in the human resources department. Making a cold call can be effective in some cases; the organizer can start by contacting the human resources departments of businesses or institutions and asking to speak with the person in charge of wellness/local food activities. However, the Iowa Food Hub has found it more helpful to have a contact on the inside (an employee) who can provide the name of the wellness coordinator or another individual in the company who is in a position to facilitate the box drop-off.
2. **Prepare a presentation:** At all of the workplaces that have hosted an IFH drop-off site, there has been a wellness committee, a decision-making body, to which IFH presented its program. Wellness programs often have low budgets, but the Worksite Food Box program does not involve any company budgetary expense. The only costs are to employees for shares and organizational time of the company liaison. It is important to note this during presentations to company decision-makers.
3. **Market to employees:** After presenting to the wellness committee, the Food Box Program must be marketed to individual employees. The employer might advertise the program in a wellness letter or send out a mass email including the Food Hub coordinator's information, with instructions for how to sign up. Important selling points include: convenience, not having to make a long-term commitment to buy, reasonable price, small up-front cash outlay, flexibility (can start and stop any time, can stop payments during vacations), and high-quality local product.
4. **Calculate expected number of participants:** Before committing to adding a new site, organizers should find out how many employees are interested. For IFH, the participation rate in the Food Box Program has been about 10 percent of the employees at each workplace drop-off site.
5. **Determine cash flow viability:** Organizers should then look at the data and decide if there are enough prospective customers to justify adding the new site. Make sure cash flow would be adequate for trucking to the site, taking into account labor, delivery, etc. (see later section on

cash flow). It is helpful to seek out new customers who already are on your current delivery route to keep expenses down.

- 6. On-Site Distribution Coordination:** Worksite hosts provide volunteer coordination on-site on delivery days to reduce labor costs of the Food Hub. This must be arranged with the host before the first delivery is made.

Iowa Food Hub did not find it difficult to get institutions and their employees involved in the Worksite Foodbox Program. They found that universities were good places to start the search, but many other types of institutions and businesses may be interested as well. However, IFH also found it could be very challenging to market to worksites without making a personal connection or having an inside contact. IFH and its Extension partners are involved with many local foods initiatives and had developed strong relationships with local food coordinators in the area. These coordinators gave them leads to institutions that might be interested in the food box program. In some cases, a personal acquaintance within a large company – someone who regularly receives mass emails about the company’s wellness programs – was able to provide IFH with a contact name in the company. If the company has a wellness coordinator, they are sometimes willing to help encourage other connections within the company.



Having a point person who uses good customer relations is important.

IFH advises: When you do reach the right point person, it is important to stress how your Food Box program is a workplace wellness program with benefits for them. Be persistent but polite, and call back occasionally, especially if there is some news of interest to report.

Communicating with customers

Once customers are recruited at a work site, maintaining good customer relations is important. Even after a particular customer places orders several weeks in a row, there is no guarantee of continued interest and success. Trying to do something positive or different every week can help maintain customer interest and enthusiasm. Customers of IFH are asked to provide feedback when they cancel for a week or quit the program. Often customers will cancel their share temporarily when they go on vacation, but there may be other reasons that can be addressed by the organizers.

Iowa Food Hub operates a website (www.iowafoodhub.com) to facilitate order placement and has launched a Facebook page to increase interaction with customers. A well-designed website was necessary for ordering because it helped minimize staff time spent on coordinating orders. Until this site was set up, IFH was hesitant to do heavy web promotion without having the capacity to increase business substantially. They did not want to turn away customers due to inadequate order fulfillment service.

Online Payment Systems: Trust But Verify!

Automatically debiting customers' accounts weekly through Paypal is a great way to save time and effort, both for customers and food hub staff. IFH organizers moved exclusively to using a Paypal-based payment system after discovering how time-consuming it was to track the status of paper checks mailed by customers.

However, IFH also learned that it was important to monitor the status of customers' credit cards, and to make sure the cards were not cancelled or expired before filling each weekly order. This became an issue in late 2013, when a series of credit card hacking events at national retail chains forced many customers to cancel their cards. Not all customers remembered to enter their new credit card information into PayPal. As a result, PayPal could not bill the weekly Food Box fee to these customers' accounts, but IFH's system did not automatically notify staff of the problem. So, some customers continued to receive "free" food boxes for a month or more before it was discovered that they had not paid. Billing customers for back-owed fees became a major customer service and accounting challenge.

Now, IFH has set up a system to automatically send credit card failure notices to the person compiling the food boxes, so that he can immediately contact customers whose payments could not be processed.

FINANCING AND EXPANDING THE OPERATION

The Food Box Program was launched with a minimal amount of capital, so it always has been closer to breaking even financially than many of the larger, more infrastructure-intensive food hubs. When the program was first launched, operating capital was provided by the pre-paid customer orders prior to the first delivery, so no additional startup capital (loans or grant money) was necessary to start making deliveries. Accepting weekly pre-payments from customers means that there are always funds available to purchase the next round of farm products and cover fuel and driving costs.

Typical Revenues and Expenses for a Worksite Food Box Program

On the following page is an estimate of revenue and expenses that could be expected from a typical Worksite Food Box operation. The figures are based on actual data from Iowa Food Hub, with adjustments to account for seasonal variation in revenues. This level of sales roughly reflects two delivery routes per week, one Food Box drop-off day near IFH's headquarters, and average weekly sales of nearly 170 Food Boxes of various sizes, at an average price of \$16.50 per weekly box. Some seasonal variation in sales and costs should be expected.*

The weekly advance payment system is advantageous for generating cash flow throughout the month. IFH pays vendors within 30 days, but receives payment from customers on a weekly basis. This system of being paid more quickly and paying back more slowly enables careful management of cash flow.

One outside subsidy that assisted with the startup phase of the program paid the salary for Nick McCann's time. (It was funded from a USDA Rural Business Enterprise Grant [RBEG] that provides technical assistance to farmers as they access local food markets.) Part of his role was to launch the Work Site Food Box program. This initial subsidized labor is not unlike other start-up business operations where owner/operators do not take wages for a period of time during start-up.⁹ At the beginning of 2014, management of IFH and the Food Box program transitioned to a coordinator employed by IFH, Nick Mabe. In addition to running the Worksite Food Box Program, Mabe operates other programs for the food hub, some of which are funded by grants. However, the Work Site Food Box program has been sufficient to support most of the hours of Mabe's time used managing the Food Box program, without using additional grant funds. Thus, with the initial public investment in a staff person

to develop markets and support local producers, the Food Hub has turned into a growing business with equipment and employees.

Monthly revenues:	Item amount	Totals
Food Box customer payments*	\$11,900	\$11,900
Monthly expenses:		
Cost of Goods Sold (paid for food box contents) *	\$8,200	\$8,200
Operating Expenses		
Labor / staff	\$2,200	
IFH Coordinator (\$20.67/hr) **	\$1,240	
Truck Driver (\$14/hr)	\$560	
Packing Labor (\$7.25/hr)	\$60	
Employment Tax & Payroll Expenses (~18% of wages)	\$340	
Shipping and Delivery (Fuel)	\$430	
Marketing Costs (Mileage for sales calls)	\$100	
Administrative	\$130	
Rent (packaging facility)	\$150	
Miscellaneous	\$10	
Total Operating Expenses		\$3,020
Ownership Expense (Delivery Truck) †	\$370	\$370
Total Expenses		\$11,590
NET CASH INCOME		\$310

* Customer revenues and COGS both vary with the season. In the winter, some customers travel for the holidays or temporarily suspend their food box deliveries for other reasons, so here we assume a 25 percent decrease in cool-season revenues. The cost of purchasing season-extended goods also increases in the winter, so average gross margin may decrease to 25 percent in the cool season compared with 35 percent in the warm season – but the annual average should be about 30 percent.

** IFH Coordinator is actually salaried, but his other time is spent on IFH activities not related to the Food Box program, so this cost is prorated to reflect the 35 percent of his time that he spends on the Food Box program. The hourly wage is shown for comparison purposes only.

† Ownership costs for IFH’s delivery van include depreciation, loan interest if the truck was financed, automobile insurance, and licensing fees. The figure above represents 38 percent of the total ownership costs of IFH’s truck, prorated to reflect the portion of total vehicle miles used for the Food Box program. We assume that any small business operating a Worksite Food Box program also will use its truck for other delivery services, such as wholesale or custom delivery, thus spreading out fixed costs.

An important part of IFH’s objective has been to generate cash along the whole value chain even at the outset, creating benefits for all those who participate. Relationships are intended to be mutually beneficial so that everyone continues to participate. The Food Box Program must sell a “critical mass” of boxes to provide cash flow to pay employees and costs of operating the truck. At the beginning, there may not be much money in a new account, but it is important to cash flow the business.

How much to charge?

Because IFH offers a variety of food box types and sizes, prices for the consumer range from \$4 to \$30 per weekly box. IFH calculates its food box prices based on what it cost to fill each food box, plus a gross margin averaging around 30 percent. (Gross margin is equal to gross sales minus the Cost of Goods Sold [COGS], which is the cost of purchasing the food that will go in the boxes.) IFH's margin is similar to the gross margins used by grocery stores, which average close to 30 percent nationally,¹⁰ so the resulting prices should seem reasonable to customers. For example, to receive a Half Food Box, which includes a half gallon of milk, half a loaf of bread, a pound of meat, half a dozen eggs every other week, a processed product, and seasonal produce, customers pay IFH \$16.50/week. That price breaks down as follows:

Budget for a Half Share Food Box

\$11.55	COGS - Cost of Goods Sold (maximum cost IFH pays for products in box)
+ \$4.95	Gross margin (30 percent of per-box price)
<hr/>	
\$16.50	Per box price charge to customer

IFH has found that it can usually fill this type of food box for \$11.55 or less, so it makes an average gross margin of 30 percent. The gross margin is used by the Food Hub to pay for delivery expenses, labor, and other costs that are less variable with the size of the order. Whatever remains is profit, which is reinvested in the business. IFH's 30 percent gross margin is fairly typical for food hubs. One survey of 17 U.S. food hubs found their average COGS to be 67.63 percent,¹¹ leaving an average margin of 32.37 percent to cover overhead costs, costs of sales such as delivery and marketing, and profit.

In the summer, the gross margin is higher than 30 percent because consumers are still paying the same amount per box, but cost of produce is lower, so it costs less to fill each box. In the winter, the opposite is true: food costs tend to be higher, so margins tend to be lower. For a Worksite Food Box Program that is charging the same weekly food box price year-round, being prepared for these seasonal changes in food cost is very important, because lower gross margins in wintertime can create a cash flow challenge. For the Food Box model to be successful, it is very important to secure a good price on wintertime products (which may be helped through production planning with producers) and to pay careful attention to wintertime cash flow.

Some products allow for a higher margin than others. For example, local milk and meat are expensive to purchase even on a wholesale basis, while summertime produce is cheap and can offer a larger profit. However, IFH tries to focus on offering a diverse and appealing food box that fits within the budgeted cost rather than on the profit margins of individual products.

Deciding when and where to expand

There is no standard minimum number of purchased shares required to take on a new institution as a customer. Rather, organizers should consider whether there are enough potential customers at each new site to 'cash flow the truck' to that site. This means that the total cash inflow from customers at a possible new site, minus the cost of the products delivered, must be greater than the cost of labor and fuel for adding the delivery site to the truck route. It may be okay to add a small customer if that customer is near another larger customer.

Below is an example of how the costs of an individual truck run are calculated:

Truck run: Decorah to Iowa City (270 miles round trip):

\$144	12 hours @ \$12/hour labor
\$100	Approximate cost of gas to site
\$76	Vehicle maintenance @ \$0.40/mi
<hr/>	
\$320	Total approx. cost of truck run

In this scenario one delivery must generate at least \$320 more revenue than the cost of products in the shares in order to break even on the truck run. (These numbers are specific to the truck used by IFH, and the \$0.40/mile maintenance charge is an estimated figure that has worked well for IFH's operation.) For estimation purposes, IFH sometimes uses a simplified trucking cost rate of \$1/mile. While this rate is low according to the figures above, it allows a very quick estimation of potential costs of different trucking scenarios.

Once a truck run is in place, and becomes a fixed cost, every new account on that delivery route will generate new cash for the program, spreading out the cost of running the truck on that day. The more shares are delivered in a given truck run, the lower the average delivery cost per box will be—which means more profit per box. In determining how many customers to have, and to find an appropriate scale/scope for operations, IFH aims to maximize the amount of cash or capacity of the truck. Questions to be asked include: Is there capacity from a customer service perspective? Can we manage to serve all of these customers? Is there space on the truck? Is there operational capacity? (Can staff pack all the boxes, get the truck ready, etc.?) Is there slack time available in a truck delivery day, so that another site could be squeezed in? Sometimes risks are involved. For example, the Food Box Program currently has a delivery in which the scheduled delivery time is 40 minutes before customers start arriving to pick up their boxes. This offers only a small time cushion, and if for some reason the delivery runs late, customers may be disappointed.

As the operation scales up, customer management and money collection are additional challenges. If customers are allowed flexibility, being able to start or stop receiving shares whenever they want, it can be hard for a single operator to manage all of the customers. This is why an efficient online ordering system has proved to be so important for IFH.

Integrating other services to increase revenue

In addition to dropping off the food boxes, Iowa Food Hub offers wholesale local products to schools and institutions, and also uses its delivery routes to offer fee-for-service hauling for growers who do not have their own distribution trucks. In this case, the Food Hub does not take ownership of the product or manage sales; it simply delivers the product to a location along its truck route, and charges a service fee to the producer. Currently, several farms are using this service to deliver to grocery stores. This provides IFH with additional income to help cover the costs of weekly truck routes and/or other expenses.

INFRASTRUCTURE AND EQUIPMENT

In the beginning, the Food Box Program operated out of leased space in a farm walk-in cooler and rented a refrigerated truck on delivery days. Since that time, IFH has received USDA RBEG funds to offer technical assistance in the form of a delivery service. The grant provided funds to purchase a refrigerated truck. A chilled storage space in the back of a local grocery store is now rented as the

location for product storage prior to Food Box drop-off. IFH staffers also have space in a fully equipped office to manage and assemble orders, conduct customer relations, and develop sales relationships.

The Truck

After renting a refrigerated truck for a few months, Iowa Food Hub chose to buy a truck because of factors specific to its location. IFH is headquartered over an hour away from the nearest rental company providing commercial delivery trucks, and the time needed to pick up and drop off the rented truck was becoming prohibitive. However, IFH recommends new food hubs look closely at the costs and benefits of rental vs. truck ownership, as rentals may be more cost-effective for organizations located close to a rental company.

Some Pros and Cons of Renting vs. Purchasing a Delivery Truck

	Rental	Purchase
Pros	<ul style="list-style-type: none"> • Rental companies cover maintenance and repairs • Replacement vehicle provided if truck breaks down • No management time needed to deal with repairs • Reduced capital investment • Reduced liability • May be a better option for larger trucks 	<ul style="list-style-type: none"> • No daily fees • No need to pick up and drop off vehicle • Freedom to use at any time without scheduling or paperwork
Cons	<ul style="list-style-type: none"> • Expensive per-day fees and per-mile fees if rented by the day • Inconvenient if there is no rental facility nearby • Must schedule ahead to reserve vehicle 	<ul style="list-style-type: none"> • Responsible for all maintenance and repair costs • Management time needed for maintenance • No replacement if truck breaks down • Vehicle depreciation

Example cost of rental: The refrigerated 16' Isuzu Cityvan initially rented by IFH cost \$130/day plus a \$0.19 surcharge for every mile driven. At 300 mi/day, IFH was paying about \$187 per rental day, plus \$95 for gas. If renting by the day, it may be important to reserve the rental truck on appointed days well into the future, so that it is sure to be available when needed.

Example cost of ownership: IFH later bought its own refrigerated 16' Isuzu Cityvan outright for \$26,600. At this price, if IFH had taken out a loan to buy the Cityvan, the estimated monthly loan payment would be about \$410 (assuming a 6-year loan, 3 percent interest, 1.25 percent sales tax, and no down payment).¹² The maintenance budget per year is \$5,000-\$6,000, assuming only a few major repairs per year. IFH also purchased a power train warranty for the van, which cost \$4,400.

Food hubs interested in buying a truck are advised to look for vehicles that are common in their area, so that parts can be obtained quickly and easily. Isuzu, GMC and International trucks are examples of brands for which most dealers will have stock parts on hand. This is important because a day of truck downtime can mean a significant cash loss in missed deliveries. Consider purchasing an extended warranty if buying a used vehicle.

Storage and Packing Facility

IFH's cold storage rental arrangement with a grocery store is a unique situation, but also a great example of how food hubs can take advantage of existing, underutilized cold storage areas at a low cost. Modern trends in the grocery store industry, including computerized inventory management systems and "quick response" relationships with distributors, mean that stores no longer stock as much inventory as in the past.¹³ Older grocery stores are therefore likely to have some unused storage space. For IFH, sharing space with a grocery store has benefits, including access to wheeled carts, a product staging area, and a loading dock. It already has necessary licenses and permits for warehousing, and the Food Hub is not responsible for facility maintenance. The cold storage area is large enough not only to store food boxes, but to pack them while inside the cooler, which aids with freshness and food safety.

New food hubs will benefit from thinking about existing facilities in their own communities that might provide these amenities. Convenience stores that have gone out of business are another source of unused refrigeration space that some food hub organizers have been exploring.

Vehicle storage is another consideration in selecting a location for product storage. Can a delivery vehicle be garaged on-site or near the site, in a location out of the elements? Will the location be convenient for cold-starting the truck on frigid mornings? These questions become especially important for a food hub that owns its own truck.

MANAGEMENT AND LABOR

Management and operation of the food box program requires taking and consolidating weekly customer orders, procuring products, packing boxes, and making deliveries. Student volunteers, interns, and a truck driver, along with coordination staff, all have contributed time to these efforts at a relatively low cost. To prepare for the deliveries, boxes are usually packed twice a week, a day or two before each delivery occurs.

Here is a snapshot of how much time IFH spends on activities related to the Food Box program, operating at a level of about 200 boxes per week and three delivery days per week.

- **Food Hub Management: (14 hrs/week).** For IFH, these activities include:
 - *About ten hours direct management of Food Box activities* including food box setup, food ordering, and customer service.
 - *About four hours general marketing and producer development*, including outreach to possible drop-off sites, producer outreach, and production planning.

The cost of employing IFH's Coordinator is currently \$43,000/year, so for the purposes of showing IFH's budget of expenses, his time is valued at $\$43,000 / 2080 \text{ hours} = \$20.67/\text{hour}$. However, because his salary is in reality a fixed and not an hourly cost, IFH has to make sure that the Coordinator's remaining hours are spent on profitable activities as well.



The Iowa Food Hub rents a chilled space at a grocery store to keep products prior to distribution.

IFH's online ordering system now makes order management quick and efficient. When the program was first being launched, customer service was more time consuming because issues with payment, delivery, etc. were still being worked out. During the startup period, management and customer service together required as much as 30 hours per week.

- **Packing Boxes: (2-4 hours per week)** Packing takes up a small fraction of the total time needed to operate the program, and can be done by unskilled volunteers or workers. IFH recruits high school or college student interns (usually from Luther College) to pack boxes for minimum wage (\$7.25/hour). It is advantageous to recruit students interested in local food for this task, because they tend to be committed to the work.
- **Delivery: (18 hrs/week for 3 delivery days per week)** Delivery is currently done by a driver employed by IFH, whose hourly pay and other employment costs are covered in the cost of the food boxes. The driver is paid \$14/hour.

Organizers of new food hubs often ask themselves, "How much do we need to grow our sales so that we can afford full-time paid staff?" The answer can be calculated using the hub's gross margin and weekly costs. Here is an example:

Scaling Up to Hire Staff

For the Iowa Food Hub, the goal this year is to cover one full-time coordinator (\$43,000/year) and one part-time driver (\$20,000/year), for a total of about \$63,000 in annual staffing costs. Divided across 48 delivery weeks per year (assuming that deliveries will not be made on some weeks due to holidays), an average of \$1,312.50 per delivery week is needed to cover staffing.

On average, IFH's Costs of Good Sold (COGS) takes up about 70 percent of sales revenue. For this example, let's assume that the other non-staff costs listed on page 9, including fuel, rent, and truck ownership require an additional 12 percent of revenue.¹⁴

After COGS and non-staff costs are removed, the remaining 18 percent of revenue is available to pay for staff. Given an average, half-share food box priced at \$16.50/week, each food box sale contributes \$2.97 (or 18 percent of sales revenue) to staff costs:

$$\$1,312.50 \text{ weekly staff costs} \div \$2.97 \text{ per box} = \mathbf{442 \text{ boxes / week}}$$

This is the average number of half-share food boxes that IFH will need to sell each week in order to meet its staffing goals. This calculation assumes that the percentage of revenue going towards non-staff costs will not change as sales are increased. In reality, costs would go up and down over time as new delivery routes or infrastructure are added to the operation. However, there are a number of ways to increase revenue while keeping costs stable. These include: adding more customers at each existing drop-off site, increasing weekly participation from existing customers, and encouraging existing customers to buy larger food boxes (e.g. moving from \$16.50/week half shares to \$30/week full shares).

CONCLUSION: TIPS FOR WORKSITE FOOD BOX PROGRAMS

Although the Worksite Food Box Program at Iowa Food Hub has accomplished a great deal in its first 18 months, it is still a work in progress. Organizers continue to streamline the ordering system, and add more customers, and scale up sufficiently to fund staff. Operational problems need to be solved before developing more nuanced marketing strategies. One option might be to incorporate a full-time

customer service staffer on site at the Food Hub, possibly cost-sharing this person's salary with individual farmers who need customer service help in order to deal with wholesale buyers. Other challenges include generating enough production volume and cash flow.

The ultimate goal of IFH is to develop a profitable and effective regional food hub in northeast Iowa. In the long run, Iowa Food Hub hopes to expand the Worksite Food Box program, but also aims to branch out into other activities that utilize the same distribution truck and routes. As mentioned earlier, IFH is doing some fee-for-service custom trucking business concurrently with the Food Box program, which is useful for generating added cash flow. Eventually IFH hopes that the groundwork laid through the Food Box Program will support a significant wholesale distribution effort, which would include sales to retailers and restaurants. With the costs of trucking covered by the Food Box program, organizers now have more flexibility to explore wholesale opportunities that have narrower margins than direct sales, such as Farm to School. By filling its trucks, IFH can maximize its efficiency and generate more revenue which will allow the business to expand.

Here is a summary of what IFH organizers have learned:

- 1. It is possible to make local food aggregation and distribution cost-effective on a small scale, without extensive startup capital.** By accepting pre-payment from customers, using low-cost or leased equipment, and starting new distribution routes only when sales are guaranteed to cover costs, IFH shows that it is possible to break even with a small food hub using the Work Site Food Box model. IFH also had the benefit of grant-funded staff to help get established during its startup months. A for-profit business owner trying to follow this model would have to contribute some unpaid "sweat equity" during the first few months in order to get the system working, but this is typical for any startup business.
- 2. Scheduling box drop-off and truck runs each day is a challenge.** Making deliveries three or four times per week is an ambitious schedule to start with, but helps the program grow. Be prepared to set up a regular cycle of work, to modify it repeatedly, and to be flexible every day. Have a plan for every option – What will you do if the product you ordered is unsaleable and has to be rejected? What will you do if a truck breaks down?
- 3. Think about the efficiency of your ordering system from the beginning.** Finding the right tools to simplify customer management and packing, such as online systems that automatically consolidate orders, can save a lot of time. Time is money, so this is critical to helping the operation break even. Online credit card processing is a big time-saver, but pay close attention to automated systems -- don't get stuck chasing payments that were due months ago.
- 4. Stay ahead of the game on cash flow.** When a new project is getting started, funders and banks are hesitant to invest at the outset. The prepaid Worksite Food Box model provides cash flow during the incubation stage of a new food hub. Because customers prepay weekly, but the food hub doesn't pay farmers until the end of the month, IFH gets paid four to five times each month before it has to pay back its "Cost of Goods Sold" to farmers. The philosophy of "always pay on time, but never pay early" means that farmers can rely on IFH to pay them within 30 days, but IFH enjoys the benefits of having cash on hand in the meantime. Available cash makes it easier to make new investments and grow more quickly.
- 5. Find the time and focus to do things right.** Coordinators of a new food hub have to make many management decisions in their first few months. The actual tasks of packing and delivering goods do take time, but can easily be assigned to someone else. On the other hand, managing customer concerns, payment system problems, farmer relationships, and other day-to-day

issues require a good deal of time even for a skilled coordinator. These tasks are harder to delegate, especially in the first few months, so be ready to invest hours and mental energy during startup.

Businesses do not need to dedicate 100 percent of their enterprise to a Worksite Food Box program in order to realize the benefits of this model. For example, a farmer could incorporate a day of Work Site deliveries into his or her enterprise to diversify sources of income, which also could include traditional CSA, farmer's markets or off-farm employment. IFH sees the Worksite Food Box program as scalable, and hopes that other local food businesses around the country will use this toolkit to launch their own Worksite Food Box programs. Building a network of these Food Box programs would help improve the current model and create learning opportunities for everyone involved.

IOWA FOOD HUB SERIES: TOPICS TO BE COVERED IN FUTURE TOOLKITS

- Wholesaling to Institutional Buyers
- Farm to School
- Economics of Trucking and Infrastructure
- Evaluating Reinvestment Options
- Transitioning from Startup Mode to Ongoing Operations
- Increasing Cash Flow through Effectively Managing Receivables and Payables

FURTHER RESOURCES

- **Leopold Center for Sustainable Agriculture:** www.leopold.iastate.edu
- **Iowa Food Hub:** www.iowafoodhub.com or search for Iowa Food Hub on Facebook
- **Northeast Iowa Food and Fitness Initiative:** www.iowafoodandfitness.org
- **National Good Food Network:** <http://ngfn.org> (resources and webinars on aggregation)
- **USDA-AMS website on Food Hubs:** <http://www.ams.usda.gov/AMSv1.0/FoodHubs>

¹ U.S. Census of Agriculture. 2007.

www.agcensus.usda.gov/Publications/2007/Full_Report/Volume_1,_Chapter_1_State_Level/Iowa/st19_1_064_064.pdf

² Pirog, R. et al. Iowa Local Food and Farm Plan. 2011. Report to the Iowa Legislature from the Leopold Center for Sustainable Agriculture. Leopold Center for Sustainable Agriculture.

³ Lyons, S. and Iyer, G. 2014. Iowa CSA Farms: 2014 Statewide List of Iowa CSA Farms and Organizers. Iowa State University Extension and Leopold Center for Sustainable Agriculture. ISUEO Fact Sheet PM-1693.

⁴ Day-Farnsworth, L., McCown, B., Miller, M., & Pfeiffer, A. 2009. Scaling up: Meeting the demand for local food. Madison, Wisconsin: UW-Extension Ag Innovation Center & UW-Madison Center for Integrated Agricultural Systems. <http://www.cias.wisc.edu/scaling-up-meeting-the-demand-for-local-food/>

⁵ Barham, J., Tropp, D., Enterline, K., Farbman, J., Fisk, J., Kiraly, S. 2001. Regional Food Hub Resource Guide. Washington, D.C.: USDA Agricultural Marketing Service. <http://www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELPRDC5097957>

⁶ Fischer, M., Hamm, M., Pirog, R., Fisk, J., Farbman, J. Kiraly, S. 2013. Findings of the National Food Hub Survey. Michigan State University Center for Regional Food Systems and The Wallace Center at Winrock International. <http://foodsystems.msu.edu/resources/2013-food-hub-survey>

⁷ Bregendahl, C. and Enderton, A. 2012. Economic Impacts of Iowa's Regional Food Systems Working Group. Leopold Center for Sustainable Agriculture. <http://www.leopold.iastate.edu/pubs-and-papers/2013-11-2012-economic-impacts-rfswg-iowa>

⁸ *Ibid* 11.

⁹ McGrattan, E.R. and Prescott, E.C. 2005. Expensed and Sweat Equity in the Macroeconomy. Federal Reserve Bank of Minneapolis. Research Department Working Paper 636. Revised November 2005.

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[www.cdfifund.gov/what we do/resources/Understanding%20Grocery%20Industry_for%20fund_102411.pdf](http://www.cdfifund.gov/what_we_do/resources/Understanding%20Grocery%20Industry_for%20fund_102411.pdf)
- ¹¹ Matteson, G., Gerencer, C. Pirro, E. 2013. Pathways to Food Hub Success: Financial Benchmarks Metrics and Measurements for Regional Food Hubs. National Good Food Network Webinar, August 13, 2013. Retrieved from <http://www.ngfn.org/resources/ngfn-cluster-calls/financial-benchmarks-for-food-hubs>
- ¹² Calculated using www.onlineloancalculator.org.
- ¹³ Kinsey, J., and Sinauer, B. 1996. Food Marketing in an Electronic Age: Implications for Agricultural Producers. Retail Food Industry Center, Dept. of Applied Economics, University of Minnesota. Working Paper 96-02.
- ¹⁴ For IFH, the percentage of revenue going towards costs other than staff and COGS is currently closer to 10 percent because part of the fixed costs is being spread across multiple sales activities. However, Year 1 records indicate 12 percent is reasonable for an operation focusing mainly on Food Boxes. Also, costs are likely to go up and down as delivery routes are added or storage space is increased.

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www.leopold.iastate.edu
www.extension.iastate.edu/topic/local-foods
www.iowafoodhub.com

The Leopold Center for Sustainable Agriculture seeks to identify and reduce adverse socioeconomic and environmental impacts of farming practices, develop profitable farming systems that conserve natural resources, and create educational programs with ISU Extension and Outreach. It was founded by the 1987 Iowa Groundwater Protection Act. The Center is located at 209 Curtiss Hall, Iowa State University, Ames, IA 50011-1050; (515) 294-3711.

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