

Lunchtime!
Next Steps for Farm to School Programs in Oregon

By

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Lunchtime! Next Steps for Oregon Farm to School Programs

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Abstract

Farm to school programs connect schools with local farmers, ranchers and fishermen to bring fresh, locally produced products into school cafeterias. These programs have the potential to support sustainable agriculture, keep money in the local economy, and provide students with healthy, nutritious food. Despite these benefits, developing farm to school programs requires overcoming sizeable barriers including price, procurement, distribution, delivery, and lack of adequate kitchen facilities. The purpose of this project was to investigate current food purchasing practices in Oregon schools including an assessment of cafeteria facilities, popular meals, and desired food products in order to provide the information needed to expand and institutionalize farm to school programs throughout the state.

Table of Contents

CHAPTER 1.THE PROBLEM.....	- 5 -
Background of the problem	- 5 -
A brief history of school meals	- 5 -
Local Food Movement	- 7 -
Farm to School Programs.....	- 8 -
Farm to School in Oregon.....	- 8 -
This Research.....	- 9 -
CHAPTER 2. LITERATURE REVIEW.....	- 10 -
CHAPTER 3. METHODOLOGY	- 13 -
CHAPTER 4. RESULTS.....	- 16 -
Characteristics of responding schools	- 16 -
Major Vendors.....	- 17 -
Are Schools Purchasing Local Food?.....	- 18 -
The Cafeteria.....	- 19 -
Logistics.....	- 24 -
Marketing to Schools.....	- 27 -
Summary.....	- 29 -
CHAPTER 5. ANALYSIS AND RECOMMENDATIONS	- 31 -
Problem: Distribution	- 31 -
Problem: Access to Information.....	- 32 -
Problem: Food Preparation	- 33 -
Problem: The educational component.....	- 33 -
Problem: Funding.....	- 34 -
Problem: Program Evaluation.....	- 35 -
Problem: Coordination.....	- 35 -
Conclusion.....	- 36 -
BIBLIOGRAPHY.....	- 38 -

chapter 1.the problem background.

Farm to school programs connect schools with local farmers, ranchers and fishermen to bring fresh, locally produced products into school cafeterias. These programs have the potential to support sustainable agriculture, keep money in the local economy, and provide students with healthy, nutritious food (Azuma & Fisher, 2001; Vallianatos, Gottlieb, & Haase, 2004). According to the National Farm to School Network, nearly 2,000 farm to school programs are currently operating in 38 states and over 8,300 schools.

Despite these successes, developing farm to school programs requires overcoming sizeable barriers including price, procurement, distribution, delivery, and lack of adequate kitchen facilities (Pierson & Hammer, 2003). The purpose of this research is to help overcome these barriers by gathering information that schools, producers, and food advocates can use to support and strengthen farm to school programs in Oregon.

This chapter discusses the relevant background behind farm to school programs. First, it explores the history of school meals and school food policy with an emphasis on how this history influences current efforts to reform school food. Second, it introduces the idea of a local food movement and describes how the effort to reform agriculture supports farm to school programs. Third, it provides some of the unique aspects of farm to school in Oregon. Lastly, it discusses how this research serves to address barriers to farm to school programs in Oregon.

school meals. a brief history

Exploring the history of school meals has three important implications for farm to school programs:

1. It provides context on the multiple interests that shaped and continue to shape school food.
2. It demonstrates that for better or worse, changing school food takes time.
3. Many of the barriers that affect farm to school today are a direct result of historical choices and priorities. Understanding this history will help present day farm to school advocates address those same barriers.

food for national security.

In both World War I and II, the Army was forced to reject almost one-third of recruits called up for duty because they were either undernourished or suffered from nutrition-related ailments. Experts tied the cause of these ailments directly to poor childhood nutrition. The driving force to create a school meals program was not primarily concern for well-fed schoolchildren, but the need to produce healthy, fit soldiers.

a key compromise.

Prior to WWII, the hardships of the Great Depression exacerbated hunger and malnutrition throughout the U.S. and increased the need for the federal government to provide food relief. As the economy declined, farmers, in addition to unemployed industrial workers, began requiring federal assistance. In a partnership that shaped school meals for decades to come, politicians brokered a deal that increased agricultural crop prices and provided food for hungry schoolchildren at the same time (Kane and Hayden-Smith).

To support farmers and keep crop prices high, the federal government began a program to purchase surplus foods. The government then directed these surpluses into school meals and other food relief programs. While this seemed like a win-win situation, it was more of a benefit for farmers than for schools. This partnership, however, was the key to creating permanent federal support for school meals (Levine 2008).

To gain the support of the conservative Southern Democrats who controlled congress, school food advocates ceded control of school meals to the USDA, who would ensure continued support for agricultural interests. In exchange for this, schools, by law, would provide free and reduced price lunches to qualifying students (Levine 2008; Kosar 2008).

the National School Lunch Act and Child Nutrition Act.

With a compromise between agriculture and schools in place, President Truman signed the National School Lunch Act in 1946 creating a program to provide low-cost, free, and reduced price lunches to students throughout the nation through a combination of agricultural commodities and direct subsidies to schools. While the National School Lunch Program (NSLP) has met continued criticism and calls for reform, it continues to feed millions of children each day (USDA 2007b).

Building off the success of the National School Lunch Program, President Johnson signed the Child Nutrition Act in 1966 to help schools purchase cafeteria equipment and related “non-food” items. Furthermore, this act established the School Breakfast Program and extended the Special Milk Program, two additional means of feeding the nation’s children (USDA 2007c).

challenges to school meals.

Facing budget cuts to the NSLP in the 1980s, schools began looking for ways to cut costs, resulting in a critical shift in school meals. To cut costs, many schools would no longer run their own meal programs and hire trained staff to prepare meals. Instead, they would contract out management of school meals to private companies who streamlined the process with ready made, heat and serve meals (Levine 2008).

Apart from the trend towards contract-operated food services mentioned above, school food is a social program that is incredibly difficult to change. In the 1980s, the Reagan Administration sought to cut \$1 billion from the program. To carry this out, the USDA tried to count pickle relish and ketchup as the vegetable portion of the five required school lunch items (meat, milk, bread, and two servings of fruits or vegetables). This move encountered swift opposition and the administration quickly put the money back in the program. In the 1990s, Newt Gingrich also tried to cut funding for school food.

Even at a time of huge political triumph, Republicans backed down under accusations from Democrats that they were stealing food from children (Hasking 2005).

school food today.

Today, the National School Lunch Program and the Special Breakfast Program operate in over 101,000 public schools, non-profit private schools, and residential childcare institutions. Together, the programs provide low-cost or free meals to over 30 million children a day at a cost of just over \$10 billion dollars annually (Hasking 2005; USDA 2007b; USDA 2007c; USDA 2007a).

Although school meals have undergone substantial reform since they began, dissatisfaction with the program continues. In part, this stems from the difficulty of applying outdated federal nutrition standards to current school meal menus. When they began, the goal of school meals was to feed underweight children, and federal nutrition standards reflected this goal. Today though, childhood obesity is on the rise and the school meals program is struggling to adapt.

Rising concern over obesity and other diet-related health matters has led to a renewed interest in reforming school meals. Much of this has focused on providing fresher, less processed foods in school meals. A strategy to accomplish this is to create Farm to School programs that connect schools with local producers to bring fresh, whole foods into schools meals as an alternative to the more heavily processed, pre-made meals. While serving healthy meals is a core component of these programs, Farm to School also works to support local agriculture.

the local food movement

By many measures, agriculture is in decline throughout the United States. The percentage of farmers 55 and older is rising and fewer young people are pursuing agricultural careers. We lose two acres of agricultural land to development every minute of every day. According to the American Farmland Trust, between 1997 and 2002 our nation lost over 16 million acres of farmland. Between 1992 and 1997, the United States lost 6 million acres of agricultural land to development, a loss that occurred at a rate 51 percent higher than during the previous ten-year period (Vallianatos, Gottlieb, and Haase 2004, 420). These trends have serious consequences for local communities, the economy, our national food system, and the environment.

Increasing consolidation in agriculture has resulted in fewer farmers, larger farms, and more resource intensive farming, causing concern for the overall sustainability of the agriculture system. In response to this is a rising interest in locally produced food. Localization is becoming a central condition of sustainable food systems (Kloppenborg, Hendrickson, and W. 1996), and a growing movement supports local food as a means to "address the interrelated concerns with environmental sustainability, agricultural sustainability, food quality and safety, and economic health." (Starr et al., 2003)

farm to school programs

Given the current level of consolidation in agriculture, experts cite a need to increase marketing opportunities for small and medium sized farms to succeed. Direct sales to local consumers, restaurants, and institutions such as schools and colleges are growing strategies for increasing marketing opportunities for local farmers. Schools represent a stable and sizeable market for local producers (Friedmann 2007).

Additionally, with concern growing over childhood obesity and what our nation's children eat, schools especially are in need of fresh, nutritious food (Azuma & Fisher, 2001). Farm to school programs have the potential to provide students with healthy, nutritious food while supporting sustainable agriculture and keeping money in the local economy at the same time (Azuma & Fisher, 2001; Vallianatos, Gottlieb, & Haase, 2004).

Apart from these general benefits, there are additional reasons to support connections between local producers and schools specifically. School meals are frequently the biggest source of calories for many students, making it critical that these calories come from healthy, nutritious foods. Additionally, all students are growing and in need of good nutrition during this critical time of development. Furthermore, good nutrition is associated with better performance in schools and better behavior (Brillinger, Ohmart, and Feenstra 2003). Lastly, successful farm to school programs provide examples and strategies that will help integrate local foods into other institutional settings.

Despite these benefits, developing farm to school programs requires overcoming sizeable barriers including price, procurement, distribution, delivery, and lack of adequate kitchen facilities (Pierson & Hammer, 2003).

farm to school in oregon

Presently, the National Farm to School Network estimates that six school districts and 53 schools in Oregon have farm to school programs. While Oregon in many ways leads the nation in progressive policies that support farm to school programs, school food service providers in Oregon also face unique challenges. Unlike the majority of states in the nation, Oregon does not provide any money to schools for food services, nor does school food service receive money from the school district itself. Rather, school food service is required to be self-supporting and cover its operating expenses with subsidies from the federal government and revenue from meal sales. Given the amount of subsidies schools receive and the low profit margins they generate on full price meals, it is difficult for food services to remain in the black. The effect is that price becomes the main factor in all school food service decisions.

Oregon has, however, taken several steps to support schools in their effort to purchase and serve more fresh, local food. The Oregon Department of Agriculture recently hired a full-time farm to school coordinator whose job is to ensure that Oregon producers have the tools they need to serve schools. Additionally, the state recently passed legislation to support a corollary farm to school coordinator position within the Department of Education who can help navigate the constraints of school meal requirements. Lastly, legislation is currently on the table to provide funding for schools to incorporate Oregon agricultural products into their meals, and to provide grants for

school gardens and other food-based learning opportunities. This recent legislation combined with a growing interest in Farm to School programs makes the timing of this project extremely relevant.

this research

Academic research and industry reports have thoroughly described the barriers to farm to school programs and made recommendations to address them. Research indicates that school food service directors have significant interest in purchasing local foods (Sanger and Leslie 2004; Izumi et al. 2006; Ratcliffe and Smith 2007), but numerous barriers prevent them from doing so including affordability, regulatory and procurement issues, contract restrictions, delivery requirement issues, product availability, health regulations and food safety (Pierson and Hammer 2003; Adair et al. 2005). The objective of this research is to gather information on current school food purchasing practices, cafeteria facilities, popular meals, and desired food products. The Oregon Department of Agriculture will use this information to guide its work in supporting farm to school programs throughout the state.

This chapter provided a background to farm to school programs. The remainder of this project report is organized as follows:

- *Literature Review* - Provides a context for this project within the greater body of research surrounding local food and farm to school
- *Methodology* - Describes the research approach for gathering, collecting, and analyzing information
- *Results* - Describes the basic findings from the research
- *Discussion and Conclusion* - takes the findings a step further, provides more analysis and discusses next steps

chapter 2. literature review

The idea of creating connections between local farms and schools stems from larger concerns over both the U.S. agriculture system and childhood nutrition. This chapter explores how farm to school programs emerged from these two concerns, the barriers that prevent farm to school programs from being more widespread, and how the research described in this report contributes to the development of farm to school programs in Oregon.

Farm to School programs exist within a larger local food movement aimed at restructuring how we practice agriculture. The current system of agriculture, from production, processing, and packaging, to distribution, preparation, consumption, and disposal is unsustainable (Heller and Keoleian 2003). On average, the food we eat travels 1300 miles from the farm to the plate and requires 10 calories of energy input for every 1 calorie of food energy produced (Starrs 2007; Nabhan 2002).

Currently, growth in markets for organic products, products marketed as "natural", and products that are grown or produced "locally" has outpaced the growth in agricultural markets in general (Allen 2006). This rapid growth is driven by consumers who are seeking out healthier food that is more environmentally, economically, and socially responsible. However, as the organic and natural food market has grown and become more mainstream, the agriculture industry has diluted organic standards to the point that they no longer carry the same values the founders intended (Pollan 2006).

In response to this, localization is becoming a central condition of sustainable food systems (Kloppenburg, Hendrickson, and W. 1996) and a growing movement supports local food systems as a means to "address the interrelated concerns with environmental sustainability, agricultural sustainability, food quality and safety, and economic health" (Starr et al., 2003). Local food systems and local producers, however, face significant challenges from mainstream industrial agriculture.

Increased consolidation in agriculture, both in the United States and throughout the globe, has reduced opportunities for small and medium-sized farms. Through horizontal integration, fewer farmers have ownership over more farm acres. Increasing vertical integration means more food is grown on contract, limiting market opportunities and farmer's choices over what to grow (Stephenson and Lev 2004). Given this consolidation, experts cite a need to increase marketing opportunities for small and medium sized farms to succeed. Direct sales to local consumers, restaurants, and institutions such as schools and colleges are growing strategies for increasing marketing opportunities.

While direct sales to individuals through farmer's markets and community supported agriculture (CSA) have grown substantially in the last decade, they are not sufficient to ensure the livelihood of a local food system (Hinrichs 2003). This has led to an interest in creating direct market relationships with local institutions. By scaling up to the institutional level, farmers receive a larger, more stable contract and institutions get fresh food while supporting local farms and local economies. Most research on local

food systems however, has focused on small-scale direct marketing and a need exists for more research on higher volume markets and larger scale production (Allen 2006). Support for local agriculture is a key component of farm to school programs; providing students with fresh, healthy foods is another.

With concern rising over childhood obesity and what our nation's children eat, schools especially are in need of fresh, nutritious food (Azuma & Fisher, 2001). According to the Obesity Society, one in five children in the U.S. is obese, a number that has doubled in the last 30 years . Obesity is associated with numerous negative psychological and physical health problems, and obese children are statistically more likely to become obese adults. Nationwide, obesity rivals smoking as the leading cause of preventable disease (Vallianatos, Gottlieb, and Haase 2004).

While a variety of factors contribute to childhood obesity, food choice and eating patterns are among the leading causes. A diet that includes more fruits and vegetables is a critical strategy to address the rising obesity epidemic (Vallianatos, Gottlieb, and Haase 2004), and farm to school programs have been linked with increased consumption of fruits and vegetables (Joshi and Beery 2007). Bringing local food into our schools not only has the potential to support sustainable agriculture and local farmers, but to provide students with the food they need for a healthy diet (Tropp and Olowolayemo 2000; Vallianatos, Gottlieb, and Haase 2004).

Along with increased access to fresh, healthy foods, the research identifies four main benefits of farm to school programs (Bellows, Dufour, and Bachman 2003; Strohbehn and Gregoire 2003; Sanger and Leslie 2004; Vallianatos, Gottlieb, and Haase 2004):

1. Improved nutrition
2. Increased awareness of local farming and food systems
3. Additional marketing opportunities for local farms
4. Increased investment in the local economy

Because of these benefits, schools across the nation are interested in purchasing local products and incorporating fresh foods into school meals. A 2002 Washington State Department of Agriculture survey found that 78% of K-12 schools would purchase local foods if price and quality were competitive (Sanger and Leslie 2004). A 2004 survey of Michigan food service directors also revealed significant interest in purchasing local food if price, quality, and ease of delivery were comparable (Izumi et al. 2006). In both cases, schools were more interested in purchasing local products if they had assistance in locating local producers and coordinating purchasing and delivery logistics.

A 2007 survey of school food service providers in Oregon reinforced findings that schools are interested in purchasing local foods if they are competitive in terms of price and quality (Ratcliffe and Smith 2007). This survey proceeded to identify caveats to this interest, including the availability of local food sources and the ability to purchase local foods from a school's existing contractors.

Although research indicates that schools are interested in purchasing local foods, numerous barriers prevent them from doing so, including affordability, regulatory and procurement issues, lack of staff to prepare fresh food, contract restrictions, delivery requirements, product availability, health regulations and food safety (Tropp & Olowolayemo, 2000; Pierson & Hammer, 2003).

Researchers have thoroughly documented these barriers and made recommendations for both schools and farmers on how to proceed. These recommendations include holding face-to-face meetings between schools and farmers and helping local farmers form co-ops to share the cost of processing and transportations (Tropp and Olowolayemo 2000; Bellows, Dufour, and Bachman 2003). The results of this research, and the hard work of many farm to school advocates, are successful farm to school programs throughout the United States. According to the national Farm to School Network, almost 2,000 programs exist in 38 states.

Even with these successes, barriers still exist that prevent farm to school programs from expanding. Many existing programs are short-term pilot projects, harvest of the month programs, or experimental salad bars that only incorporate a small amount of local food (Flock et al. 2003; Sanger and Leslie 2004; French and Wechsler 2004; Brillinger, Ohmart, and Feenstra 2003). Furthermore, local food purchases by schools have usually involved strong commitment from someone at the school and/or an external source of funding to help with the coordination, ordering, delivery, and payment process (Strohbehn and Gregoire 2003).

The objective of this research is to provide the detailed information needed to expand and institutionalize farm to school programs and help schools incorporate greater amounts of local products into their meals. Specifically, this research will investigate current school food purchasing practices, cafeteria facilities, popular meals, and desired food products. The Oregon Department of Agriculture will use this information to guide its work in supporting and expanding farm to school programs throughout the state.

chapter 3. methodology

description of approach

To gather information on the current practices of school food service providers, the Oregon Department of Agriculture (ODA) administered an online survey to all schools and schools districts in Oregon that participate in the National School Lunch Program. The intent of the survey was to obtain specific information from a large number of schools/school districts that would support ODA's work in developing and supporting farm to school programs. Although interviews and mail surveys could gather similar information, they are both more time consuming and more expensive than an online survey.

survey development

I developed the survey with the assistance of ODA's Farm to School Coordinator who provided guidance on what information would be most useful in moving their work forward. Additionally, because a Federal-State Marketing Improvement Program (FSMIP) grant provided a majority of funding for this research, portions of the survey focused on gathering information specific to ideas ODA laid out in the grant proposal, namely product development. The initial draft of the survey combined input from both the coordinator and the FSMIP grant proposal.

After creating the initial draft, two non-profits in Oregon experienced with farm to school programs, Ecotrust and the Willamette Farm and Food Coalition, provided further direction on useful information to gather and the phrasing of specific questions. Furthermore, Ecotrust, in coordination with the Oregon Department of Education, recently completed a similar survey of school food services and was able to offer advice on how best to build off their findings.

After incorporating feedback from ODA, Ecotrust, and the Willamette Farm and Food Coalition, I tested the survey with several food service directors. These professionals helped phrase questions and provide industry appropriate answer ranges.

The final version of the online survey focused on five main topics:

1. *Major vendors* - Who are schools purchasing the majority of their food from?
2. *Purchasing local* - Are schools currently purchasing local food? If so, do they feature this local food in their cafeterias or classrooms?
3. *Cafeteria characteristics* - What meals are schools serving? How are they preparing and serving these meals? What are the most popular meals?
4. *School food logistics* - How often do schools plan their menu? How do they make most of their purchases? How often do they receive deliveries? What is their current food storage capacity?
5. *Marketing to schools* - What is the best way to contact schools? What is most important for schools in considering a new product?

selection of subjects

Subjects for the survey included all school food service providers in Oregon that participate in the National School Lunch Program. The Oregon Department of Agriculture provided a list of these food service providers that included recent updates from Ecotrust. In all, the list included 286 subjects that represent food service directors, managers, chefs, nutrition directors, and others who play the lead role for in purchasing food for their school/school district. These 286 subjects represent 171 school districts, 42 alternative, charter, or religious schools, and 73 juvenile detention centers and other youth programs. From the original list of 286, six people opted out and 11 email addresses were invalid. The final survey list contained 269 subjects.

instrumentation

I administered the survey using the web-based program Survey Monkey. Through Survey Monkey, the administrator can send subjects personalized survey links and track who responds. With this, I was able to direct follow-up requests only to those subjects who had not yet responded.

procedure

In administering the survey, I followed Don Dillman's Total Design Method of multiple contacts to maximize response rate (Dillman 1978). Because of limited time and resources, I was not able to provide any direct incentives for completing the survey.

The survey was open for approximately five weeks, during which time subjects received up to three contacts asking for their participation. I held the survey open for over a month to accommodate variations in school schedules and when food service operations would be shut down for spring break vacations. Table 3.1 shows the survey implementation timeline.

Table 3.1

Date	Action
February 28, 2008	Initial e-mail, sent to full list of 269 recipients
March 11, 2008	First reminder, sent to 209 recipients
April 1, 2008	Final reminder, sent to 179 recipients

The initial contact email included a link to the online survey and explained the purpose of the survey, why the subject's input was important, and how ODA intended to use the information. After this initial email, non-respondents received two reminder emails encouraging their participation in the survey.

data collection and processing

From Table 3.1, the initial survey invitation went out to 269 food service directors. When the survey closed on April 8, 2008, 113 subjects had responded. As respondents completed the online survey, Survey Monkey automatically recorded and tallied their answers. For further data processing and analysis, I downloaded responses from Survey Monkey into SPSS and MS Excel.

methodology limitations

Any survey has its limitations. The types of questions the researcher asks, the characteristics of who responds to the survey, and how those respondents interpret the questions all influence the validity of the results. While surveys are a good tool for gathering specific information, they can often miss the story behind the numbers. In interpreting the results of this survey, there are three main weaknesses to consider:

1. Schools and school districts that do not participate in the National School Lunch Program are not included in the list of subjects. This means that smaller, private schools may not have had the opportunity to respond to the survey.
2. The survey asked multiple questions about local food but did not provide a definition of the term "local". Respondents could have interpreted "local" to mean a specific mile distance from their school, the county or state boundary, or the Pacific Northwest region as a whole.
3. The Farm to School effort in Oregon has received an increasing amount of attention recently and it is possible that school food service providers are experiencing some fatigue in discussing the subject. Additionally, the Oregon Department of Education completed a similar survey of school food service providers less than one year ago. This fatigue may affect both the quality of response as well as the response rate.

chapter 4. results

The USDA Federal State Marketing Improvement Program (FSMIP) awards grants to State Departments of Agriculture to support the research and development of new marketing opportunities for agricultural products. Earlier this year, the Oregon Department of Agriculture (ODA) received a FSMIP grant to conduct research aimed at further developing farm to school programs in Oregon. Part of this research involved gathering information from schools about current purchasing practices, existing storage and kitchen facilities, and desired menu items. To accomplish this, the ODA sent a web survey to all school food service providers in Oregon who participate in the National School Lunch Program. The purpose of this chapter is to summarize the findings from the survey.

This chapter is organized as follows:

- *Characteristics of survey respondents* - What types of schools and school districts completed the survey?
- *Major vendors* - Who are schools purchasing the majority of their food from?
- *Purchasing local* - Are schools currently purchasing local food? If so, do they feature this local food in their cafeterias or classrooms?
- *Cafeteria characteristics* - What meals are schools serving? How are they preparing and serving these meals? What are the most popular meals?
- *School food logistics* - How often do schools plan their menu? How do they make most of their purchases? How often do they receive deliveries? What is their current food storage capacity?
- *Selling to schools* - What is the best way to contact schools? What is most important for schools in considering a new product?

characteristics of responding schools

In April 2008, the Oregon Department of Agriculture sent out 269 web surveys to school food service providers in Oregon. Of these, 113 completed the survey for a 42% return rate. Survey respondents represent schools and school districts that serve almost a half million meals to over 300,000 Oregon students daily. Tables 4.1 and 4.2 show the relative size of responding schools and school districts according to the number of meal sites and the number of enrolled students they have. The majority of respondents were small schools/school districts with fewer than 500 students and three or fewer meal sites. Approximately 15% of respondents represent large schools/school districts with 5,000 or more students and 10 or more meal sites.

Table 4.1 Meal Sites

Number of Meal Sites	Survey Respondents	
	Number	Percent
3 or less	63	55.8%
4 to 9	22	19.5%
10 to 19	13	11.5%
20 or more	9	8.0%
No Response	6	5.3%

Table 4.2 Enrolled Students

Number of Enrolled Students	Survey Respondents	
	Number	Percent
150 or less	25	22.1%
151 to 500	24	21.2%
501 to 1,000	13	11.5%
1,001 to 5,000	23	20.4%
5,000 to 10,000	11	9.7%
More than 10,000	7	6.2%
No Response	10	8.8%

Survey respondents represent food service providers for every grade from Kindergarten through High School, and about one-quarter of respondents provide food for Pre-Kindergarten classes.

major vendors

Distribution and delivery are significant barriers to incorporating local food into schools. Streamlining of the distribution system has allowed schools to offer free and reduced price lunches while still keeping operating costs low. This system, however, tends to favor private companies that keep costs down by purchasing food in large volumes from a small set of industrial producers. This food is often not as fresh or healthy as less processed local foods. Proponents of farm to school hope to increase the amount of fresh foods in school cafeterias by integrating local products into the larger distribution system. To do this, it is important to know which vendors schools are purchasing most of their food from and which vendors are able and willing to source local food.

Table 4.3 Major Vendors

Vendor	# of Purchasers	% of Schools	Able to get local food?
Sysco	54	47.8%	Yes
Food Services of America	38	33.6%	Yes
Franz Family Bakery	15	13.3%	No/Don't Know
McDonald Wholesale	14	12.4%	Yes
Duck Delivery Produce	13	11.5%	Yes
Umpqua Dairy	12	10.6%	Yes
No Response	10	8.8%	--

Note: Number of purchasers does not add up to 113 (total number of survey respondents) because respondents could list up to five major vendors.

From Table 4.3, Sysco and Food Services of America were the most popular vendors among survey respondents. According to schools that currently purchase some local products, all but one of the top six vendors has the ability to provide local food. However, over 37% of survey respondents did not know if their current vendors are able to source local food (Table 4.4). This shows an opportunity to use the purchasing power of schools/school districts to increase fresh food in the cafeteria. If more schools start asking for local food, vendors will find a way to meet this demand.

Table 4.4

Are your current vendors able provide local food?	Number	Percent
Yes	33	29.2%
No	27	23.9%
Don't Know	42	37.2%
No Response	11	9.7%

are schools purchasing local food?

Previous studies have shown that schools are very interested in purchasing locally grown foods when price, quality, and availability are comparable (Izumi et al. 2006; Ratcliffe and Smith 2007; Adair et al. 2005). Table 4.5 shows, though, that only one-third of schools are currently purchasing any products from local producers; most have not or do not know if they have purchased local products. This is a critical issue in farm to school: Interest in local food is high, but this interest does not necessarily translate into practice.

Table 4.5 Local Food Purchases

Have you purchased foods from a local farmer/producer in the last year?	Number	Percent
Yes	37	32.7%
No	58	51.3%
Don't Know	11	9.7%
No Response	7	6.2%

promoting local foods.

Research suggests that for Farm to School programs to be successful, schools need to promote local foods in the cafeteria as well as in the classroom (Joshi and Beery 2007; Flock et al. 2003; Bellows, Dufour, and Bachman 2003). Of the schools that purchased local food last year, over half promoted those foods in the cafeteria while only 11% promoted local food in the classroom (Table 4.6). One reason for this may be that food service is disconnected from the rest of the school, and food service directors do not have much influence over the classroom. Given this situation, an opportunity may exist to support local foods in schools by adding a classroom educational component to compliment local foods in the cafeteria.

Table 4.6 Promoting Local Foods

Do you promote foods from local farmers/producers in your cafeteria?	Number	Percent
Yes	21	56.8%
No	14	37.8%
Don't Know	1	2.7%
No Response	1	2.7%

Do you promote foods from local farmers/producers in your classrooms?	Number	Percent
Yes	4	10.8%
No	20	54.1%
Don't Know	12	32.4%
No Response	1	2.7%

Note: This question dealt only with the respondents who indicated in the survey that they made local purchases (n=37).

the cafeteria

In order to understand how best to incorporate local foods into the existing school meals structure, ODA and other farm to school advocates need to know certain details about school cafeterias including:

- What types of meals schools are serving?
- How are schools serving these meals?
- What are cafeteria food preparation facilities like?

The following section addresses these and other questions.

what meals are schools serving?

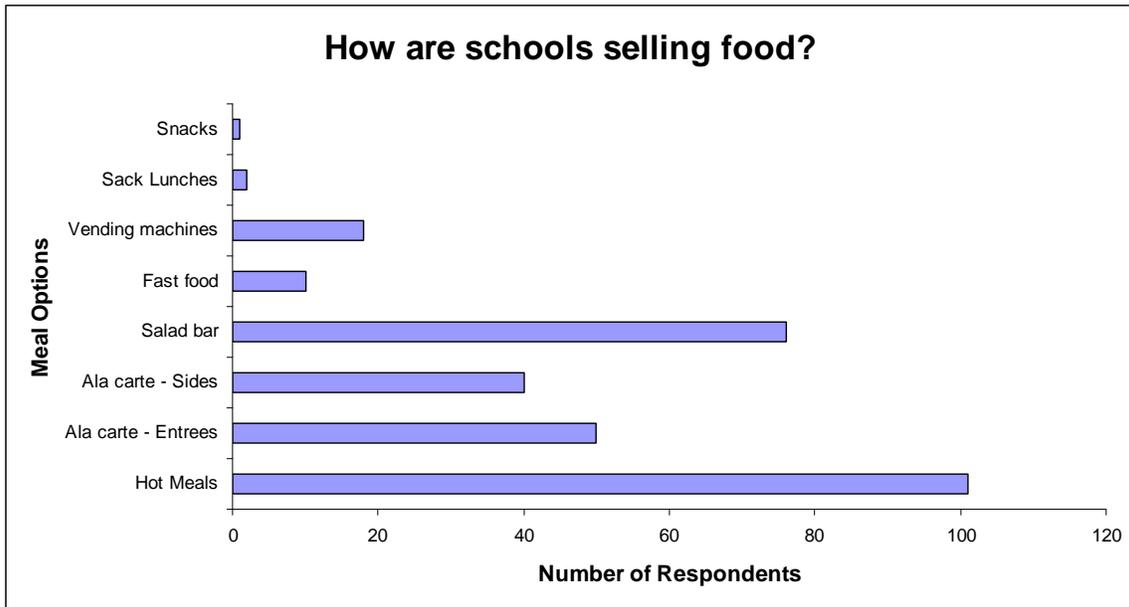
Almost all responding schools and school districts serve both breakfast and lunch. Not surprisingly, lunch is the most common meal, followed by breakfast, snack, and lastly, supper. Other meals schools serve include bagged lunches, after-school program snacks, and summer meals. Combined, responding schools serve almost a half-million meals each school day (Table 4.7).

Table 4.7 Number of Meals Served

Meal Type	# Served Daily
Breakfast	113,896
Lunch	328,672
Snack	13,463
Supper	8,355
Total	464,386

While Table 4.7 shows the general type of meals schools are serving, Figure 4.1 shows the specific meal options available in school cafeterias. Since schools need different types of products for different meals, this is useful information for local producers interested in marketing their products to schools.

Figure 4.1 Meal Options



Hot meals and salad bars were the most popular meal options among responding schools. Just under half of all respondents serve ala carte entrees, and about 35% serve ala carte sides. Vending machines and fast food make up only a small percentage of the meal options schools provide.

Within this range of meal options, Table 4.8 shows the most popular lunch items served in Oregon schools. Knowing these items allows ODA to direct research into how to integrate local foods into these meals.

Table 4.8 Most Popular Lunch Entrees

Entrée	Number of Responses
Pizza	78
Chicken Nuggets	48
Hamburgers	28
Tacos	22
Nachos	18

In addition to current meals, ODA is also interested in developing prepared food items that schools are interested in offering but are not presently available. Table 4.9 summarizes the items schools would be interested in purchasing.

Table 4.9 Items Schools Want

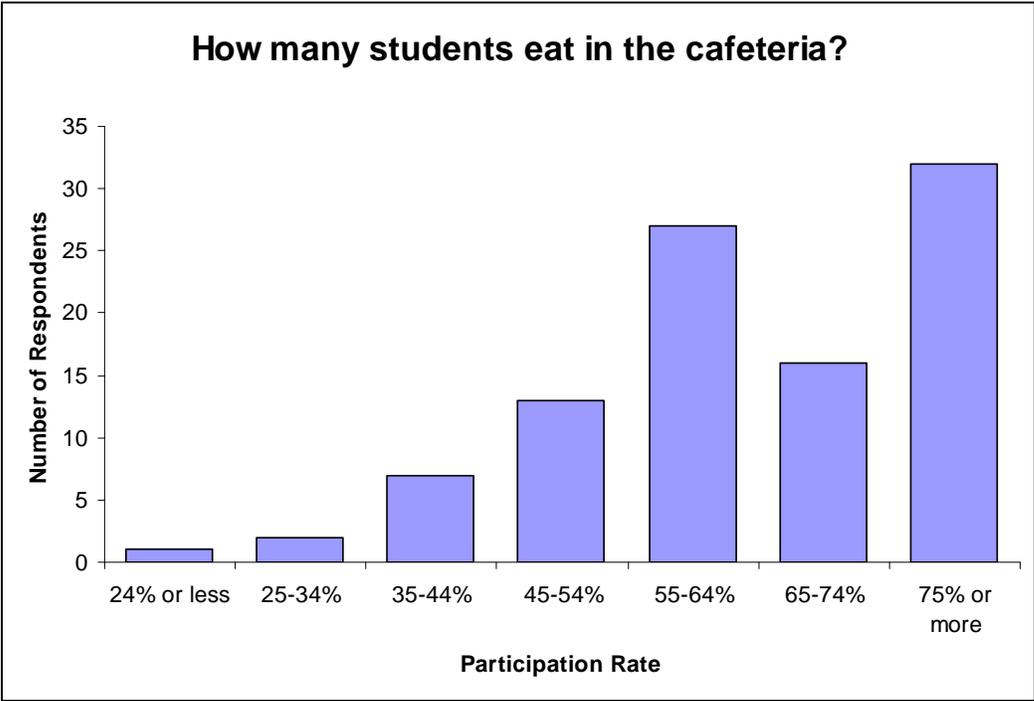
Product Type	Items
<u>Lunch Items</u>	<ul style="list-style-type: none"> • Lasagna • Casserole • Asian entrées • Mexican entrées
<u>Breakfast Items</u>	<ul style="list-style-type: none"> • Egg and cheese biscuits/bagels • Ham and cheese pockets • Whole grain breakfast item • Maple Pan-Egg Cake • Yogurt and fruit drink
<u>Fruits & Vegetables</u>	<ul style="list-style-type: none"> • Fresh, regional fruits and vegetables • More variety of fresh fruits • Pre-packaged, single serve fruit and vegetable items • Prepared salads • Strawberry cups • Fresh asparagus
<u>Chicken Products</u>	<ul style="list-style-type: none"> • Chicken strips • Whole meat chicken • Chicken nuggets
<u>Beef Products</u>	<ul style="list-style-type: none"> • Beef steak • Beef for stews • Beef for fajitas • Taco meat • Roast beef • Beef teriyaki dippers • Beef bites
<u>Other</u>	<ul style="list-style-type: none"> • Corn dogs/whole grain corn dogs • Fish • Wild rice
<u>General</u>	<ul style="list-style-type: none"> • Lower sodium • Lower in fat and trans fat • Less highly processed foods

participation in school meals.

Student participation in the school meals program is crucial for school food service to remain operational. In general, school food service receives no outside funding and is required to be self-sufficient in operations. This is an extreme challenge. Schools provide free and reduced price meals, for which they receive some small compensation through the National School Lunch Program. They have to attract full-paying students to make ends meet, but are constrained in what meals they can provide by price, nutritional standards, and what students are likely to eat. Kids are typically conservative eaters and vending machines and fast food can easily woo students away from the cafeteria. Therefore, if schools want some flexibility in their system and the ability to purchase local foods, they need students to participate.

Research has shown that local foods can increase participation from students as well as from faculty and staff. Figure 4.2 provides a snapshot of school meals participation in Oregon. In general, participation seems high with two-thirds of respondents indicating a 55% or greater participation rate. Still, there appears to be room to increase participation, thereby increasing the financial viability of food services and decreasing somewhat the constraint price makes on purchasing decisions.

Figure 4.2 Cafeteria Participation



food preparation.

In addition to information on the types of meals schools are serving and how they are serving them, knowing schools ability to prepare fresh foods is critical to effectively market local products.

Table 4.10 shows that most schools use a combination of food preparation methods that includes preparing some foods from scratch in addition to heating and serving already prepared food. Very few schools do all scratch or all heat and serve. Since most schools have some capacity to prepare fresh foods it would be useful to follow-up with these schools to further quantify this capacity and determine what items they are making from scratch.

Table 4.10 Preparation Method

What type of food preparation methods do you use?	Number	Percent
Heat and serve, already prepared	7	6.2%
Some scratch, some already prepared	89	78.8%
All scratch	5	4.4%
No Response	12	10.6%

Tables 4.11 and 4.12 show that most schools purchase some USDA commodities that need further processing as well as fruits and vegetables that need to be cut, confirming that schools have some ability to prepare some foods from scratch. What is not clear is whether or not individual schools are using these raw products or if the school district coordinates further processing at another facility.

Table 4.11 USDA Commodities

What purchases do you make with your USDA commodity entitlement?	Number	Percent
Finished goods	34	30.1%
Raw products needing further processing	0	0.0%
BOTH	65	57.5%
NEITHER	3	2.7%
No Response	11	9.7%

Table 4.12 Fruits and Veggies

In what form do you purchase fresh fruits and vegetables?	Number	Percent
Whole form; needs to be cut	23	20%
Already cut; ready to use	7	6%
BOTH	71	63%
NETIHER	1	1%
No Response	11	10%

Researchers in farm to school programs have identified the lack of processing and preparation facilities in schools as a significant barrier (Pierson and Hammer 2003; Azuma and Fisher 2001). The take-away lesson from this section is that schools do have some capacity to process and prepare raw, whole ingredients. The next step is to quantify and further understand this capacity.

logistics

This section presents responses to questions dealing with the logistics of school food. It covers menu planning, purchasing, delivery and storage.

menu planning.

A key component to effectively market local products to schools is knowing how and when schools plan their menu. Figures 4.3 and 4.4 show that most schools and school districts responding to this survey use a cycle menu. Cycle menus allow schools to plan their meals for the school year in advance and purchase ingredients in bulk ahead of time. The most common length of a cycle menu was four weeks, but variation in the cycle length indicates that the timing of menu planning depends on the size of the school, the number of meal sites, and the number of students.

Figure 4.3

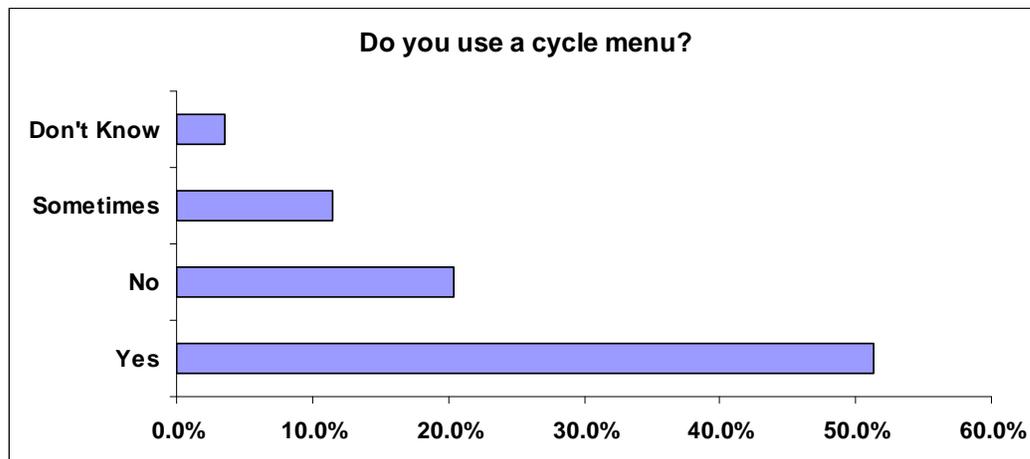
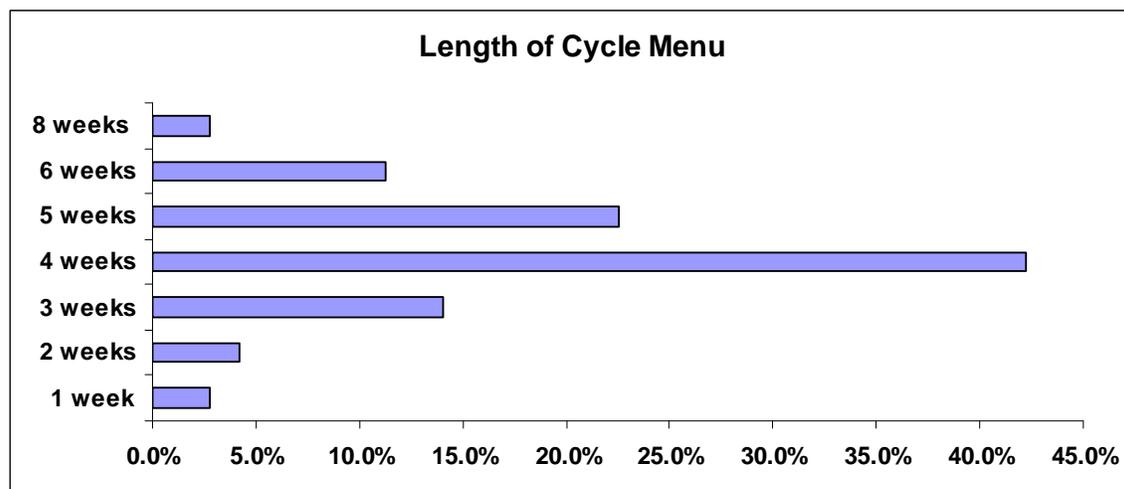


Figure 4.4

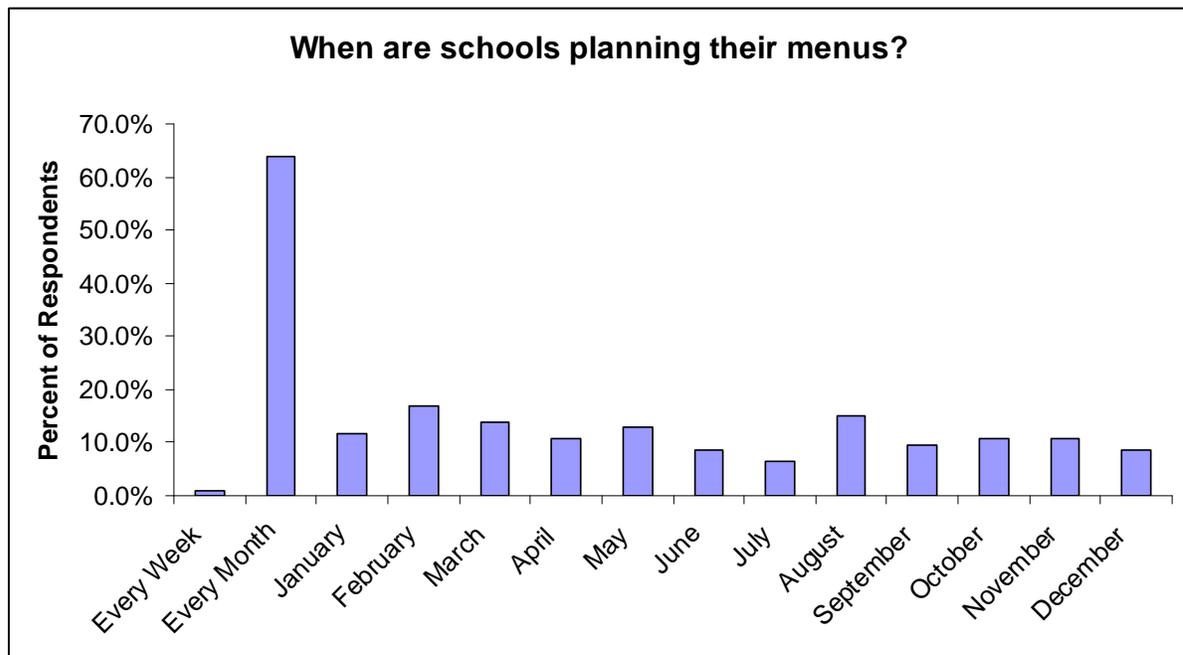


Note: This question only refers to those respondents who indicated they use, or sometimes use, a cycle menu (n=71)

When asked about menu planning, most respondents indicated that they plan meals on a monthly basis (Figure 4.5). Since most schools use a month long cycle menu, this makes sense. For schools that do not plan every month, planning appears to be spread relatively evenly throughout the year, with February and August being slightly more popular months for menu planning.

The method of menu planning schools use depends on school size. In order to use a cycle menu and get the benefits of purchasing many items in bulk, schools need adequate storage space, something smaller schools may lack.

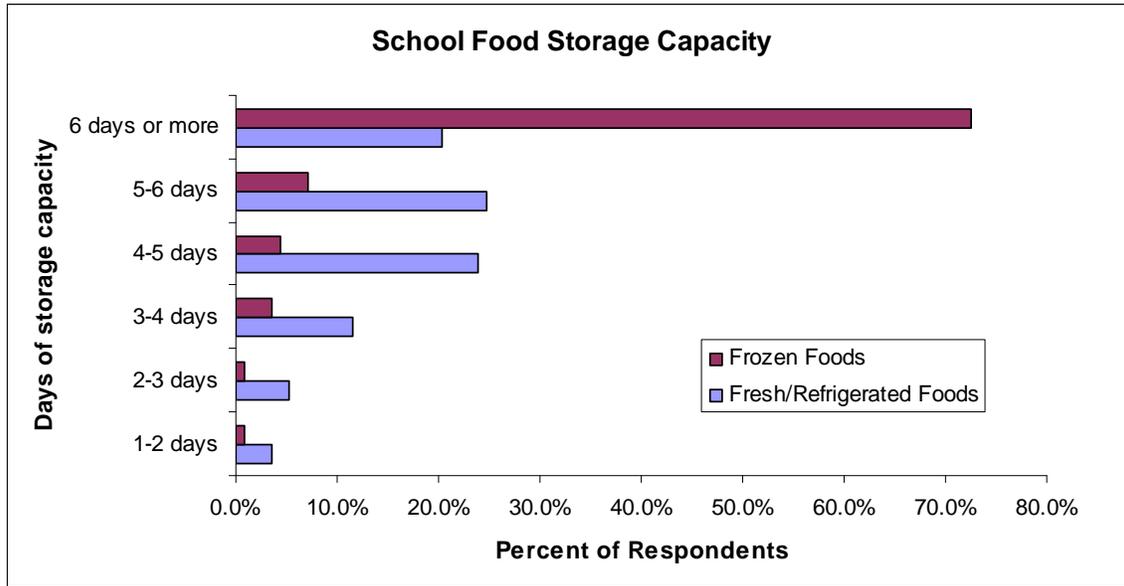
Figure 4.5 Menu Planning



storage.

Since peak farming season is for the most part out of tune with the school year, storage space is a critical factor in supporting farm to school programs. As seen in Figure 4.6, the storage capacity of fresh and refrigerated foods varies significantly. In general, schools have more space to store frozen foods than for fresh and refrigerated foods.

Figure 4.6 Storage Capacity



purchasing method.

In order to increase local food purchases, it is necessary to understand how school food service providers are making most of their current purchases. The results in Table 4.13 indicate that schools make most of their purchases over the Internet and by phone. This bodes well for the development of an online local foods database that would connect schools and producers.

Table 4.13 Purchasing Method

How do you make most of your purchases?	Number	Percent
Internet	44	38.9%
E-Mail	3	2.7%
Phone	29	25.7%
Fax	4	3.5%
Mail	1	0.9%
In Person	6	5.3%
Pick up at store	7	6.2%
Other	5	4.4%
No Response	14	12.4%

delivery.

Coordinating deliveries is also a large barrier for local producers who may lack the ability to deliver products with the frequency and regularity that schools need. Survey questions dealt with delivery frequency and time in order to provide information that will help link schools and local producers.

Table 4.14 Delivery Frequency

Food Items	More than once				
	Daily	a week	Weekly	Monthly	Pick-up
Dry groceries	2.7%	18.6%	53.1%	3.5%	7.1%
Produce	2.7%	28.3%	45.1%	0.0%	8.0%
Bread	0.9%	22.1%	50.4%	2.7%	7.1%
Milk	1.8%	57.5%	23.9%	0.9%	1.8%
Meat	0.9%	19.5%	43.4%	11.5%	6.2%
Other refrigerated or frozen items	1.8%	15.9%	43.4%	7.1%	7.1%

Except for milk and fresh produce that come more than once a week, schools and school districts receive most of their deliveries on a weekly basis. Delivery frequency depends greatly on school size: Large schools/school districts receive daily deliveries, while smaller districts receive items monthly or may even pick up items themselves.

In terms of delivery time, schools prefer to receive deliveries before 9 am, although some schools indicated that deliveries after 1pm were acceptable as well. The lunch period between 11am and 1pm is the busiest part of the day for food services and not a good time for deliveries.

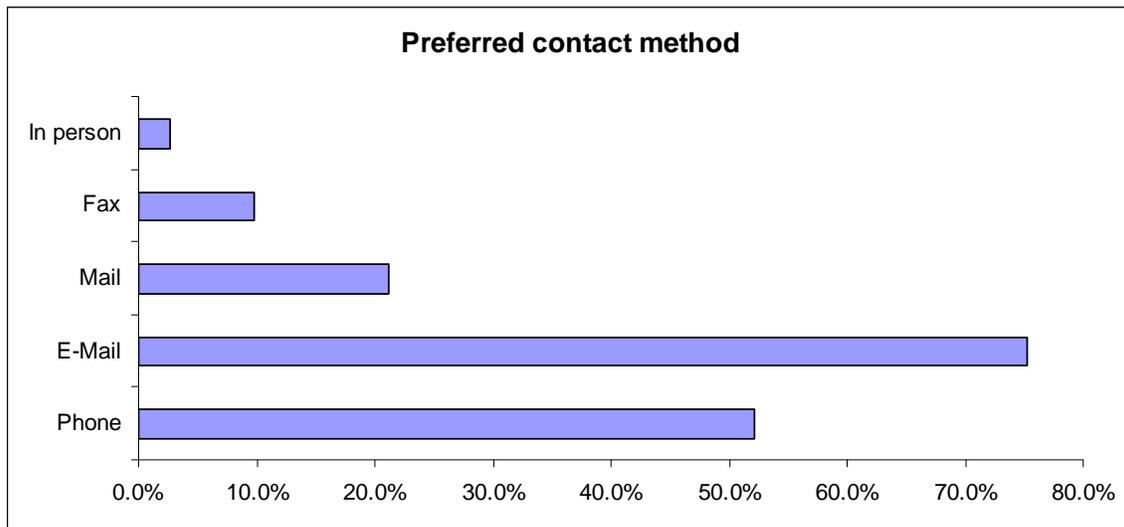
marketing to schools

This section addresses questions related to marketing, including how to best contact schools, what information schools want in considering new products, and how likely schools would be to use an online database to coordinate purchasing local products.

contacting schools.

For the vast majority of survey respondents E-mail was the preferred method of contact followed by phone calls. Comments in the survey indicated that many schools prefer an initial e-mail to establish contact, after which they prefer the phone.

Figure 4.7 Contact Method



Note: Numbers do not add to 100% because respondents could select multiple methods of contact.

In contacting food service providers by phone, a majority prefers to be called between 1 and 3pm. Although preferred call times varied, no food service providers want to be contacted between the busy lunch hours of 11am to 1pm.

new products.

The most important information for schools in considering new products to purchase is cost. After cost, schools want to actually see the product and have information about product availability. Schools were less interested in product information sheets and CN labels. These findings reinforce the importance of price as the driving force behind purchasing decisions.

online database.

Local food advocates throughout the region are interested in developing an online database to link local producers with schools and other institutional markets. The Farmer-Chef Connection and the Guide to Local and Seasonal Products are examples of this work. To push development of an online database forward, ODA posed several questions in the survey to assess school interest in various database functions. Table 4.15 shows the results of these questions.

Table 4.15 How likely would you be to use the following online database functions?

Database Functions	Not Likely	Somewhat Likely	Likely	Very Likely	Not Sure
Searching for specific products	5.3%	11.5%	31.0%	34.5%	2.7%
Searching for local producers	3.5%	14.2%	25.7%	38.1%	3.5%
Purchasing local products	3.5%	11.5%	22.1%	41.6%	6.2%
Coordinating deliveries	8.0%	8.8%	23.0%	36.3%	6.2%
Billing and payment	15.0%	4.4%	24.8%	26.5%	11.5%

Most respondents indicated that they would be likely or very likely to use all five of the database functions listed in the survey. The most popular functions were searching for specific products and purchasing local products. The least popular function for the database was billing and payment.

summary

This section summarizes the key findings from the survey. These findings highlight many of the main issues farm to school programs face in moving forward and provide a basis for future recommendations discussed in the next chapter.

CHARACTERISTICS OF RESPONDING SCHOOLS

- Approximately half of all survey respondents represent small schools and school districts that have three or fewer meal sites and serve 500 students or less.
- About 15% of all survey respondents represent large schools and school districts with 10 or more meal sites and serve 5,000 or more students.

Small schools and school districts face different challenges in purchasing local products compared to larger schools and school districts. Knowing the unique strengths and weaknesses associated with school size will help shape future work and further recommendations.

MAJOR VENDORS

- Sysco and Food Services of America were the most popular vendors.
- According to the respondents, five of the six top vendors are able to provide local products. When asked however, 37% of respondents did not know whether their major vendors could provide local products.

These results highlight distribution as a major barrier within farm to school programs. While the ideal option is for schools to make purchases directly, many local producers and schools lack the capacity to do this. Survey questions addressed the option of integrating local products into the existing distribution chain as a means of helping local farmers sell to schools. A third option is to create a “local” distribution chain by providing local farmers, processors, and distributors the resources they need to make their products marketable to schools.

PURCHASING LOCAL

- 33% of respondents purchased local products in the last year, 51% did not.
- Of those that made local purchases, 57% featured these products in their cafeteria, only 11% tied local purchases to classroom education.

Farm to school programs have additional goals beyond creating new marketing outlets for local producers. Teaching students about where their food comes from and how it is grown is a fundamental goal. That so few schools have a classroom component that complements their local purchases highlights an important educational need.

CAFETERIA CHARACTERISTICS

- About 67% of responding schools have salad bars.
- 44% of schools served ala carte entrees, 35% serve ala carte sides.

Unlike main entrée items, ala carte items are not required to follow any nutritional standards. Additionally, ala carte items compete directly with main entrée items that schools receive federal support to provide.

- Pizza was the most popular lunch item followed by chicken nuggets.
- Participation in school meals was generally high, with two-thirds of responding schools indicating that 55% or more of their students eat school meals.

Participation is crucial for the financial viability of school food services. Knowing the characteristics of schools and school cafeterias with high participation rates may help other schools boost participation in their meals program.

- 80% of responding schools prepare some food from scratch. Over 80% purchase fruits and vegetables that require some preparation and chopping, and 58% purchase raw commodity products from the USDA that need further processing.

LOGISTICS

- 63% of schools use or sometimes use a cycle menu. Most often, this is 4-5 week cycle.

In general, cycle menus allow for bulk purchases that save money but require more storage space. With a cycle menu, schools know what they will be serving in the future allowing producers to look ahead and determine where their products could fit.

- Storage capacity for refrigerated foods varies greatly, but 72% of schools are able to store a week or more of frozen foods.
- Menu planning for responding schools typically happens every month.
- Most schools receive food items on a weekly basis.

MARKETING TO SCHOOLS

- 75% of schools prefer contact via e-mail. 52% also indicated that the phone was a preferred method of contact.
- In considering new products, price, availability, and actually seeing the products were the most important factors for schools. CN labels and product information sheets were less important, although this may depend on the school size and the type of menu planning they use.
- A majority of respondents were likely or very likely to use all five potential functions of an online database. Searching for and purchasing local products were the most popular functions, and billing and payment was the least popular

This chapter summarized the results and key findings of the survey. The next chapter will discuss the implications of these results and present recommendations on next steps for both practice and research to support farm to school programs in Oregon.

chapter 5. analysis & recommendations

This section combines research and literature findings with survey results to make recommendations on strengthening farm to school programs in Oregon. It focuses on problems farm to school programs face in moving forward. Each problem includes a recommendation for next steps and a short discussion of the situation. Specifically, this section addresses the following issues:

- Distribution and delivery
- Access to information
- School’s food preparation capacity
- The educational component
- Funding
- Program evaluation
- Coordination between farm to school advocates, schools, and farmers

Problem:

Distribution and delivery	<ul style="list-style-type: none">• Pursue options for direct sales via an online database.• Support development of local farmer cooperatives.
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Distribution remains one of the primary barriers to farm to school programs. The problem involves identifying the best way to get food from the farm to the school in a timely and efficient manner that meets the needs of both parties.

recommendation.

Pursue options for direct sales from producers to schools including a statewide online database to facilitate connections between farms and schools, as well as state support for the creation of farmer cooperatives.

discussion.

There are two basic models for distribution and delivery in farm to school programs: direct from the producers, or through an intermediary. Farm to school programs have a dual goal to not only bring fresh, local food into the classroom, but to foster a connection between schools and farmers and between students and the source of their food. Given these goals, direct sales is the best option.

However, small schools and small farms in particular face barriers in creating direct sale relationships. Small schools often lack the resources to coordinate purchases from multiple vendors while small farmers may lack the distribution and processing capacity schools need. One possibility to address this is to use the existing distribution capacity of

major food vendors such as Sysco and Food Services of America to source local food and distribute it to schools. The question that remains is whether the existing distribution chain can create openings for smaller farms to participate in school sales for a minimal price mark up.

The problem with this strategy is that having a for-profit intermediary between local producers and schools may increase the price of local food that already tends to be more expensive. Furthermore, it eliminates the direct relationship that is a main component of farm to school programs. An alternative to using major vendors is for local producers to form cooperatives and pool resources to get the distribution capacity that is not possible on an individual level. For example, a group of farmers in Iowa joined forces to form the GROWN Locally Cooperative with the mission of providing fresh, naturally grown foods to institutions (Huber and Parker 2002).

The GROWN Locally cooperative created an online system to tally farmers' products and streamline the purchasing and delivery process. Additionally, the cooperative offers shared processing, washing, and packaging facilities and is developing a freezing and canning facility to extend the shelf life and seasonal availability of their products. In moving farm to school programs forward, ODA should play a major role in helping Oregon farmers form similar co-ops.

Problem:

<p>Access to information</p>	<ul style="list-style-type: none"> • Continue efforts to create a statewide database of farms and schools.
-------------------------------------	---

Schools and farmers in Oregon are interested in creating farm to school programs, but lack the information needed to create these relationships and ensure their long-term success.

recommendation.

Continue efforts to create a statewide online database of farms and schools that allows users to search for and purchase local products

discussion.

Survey results show that schools conduct a majority of their business online. In order to be successful, the database needs to streamline the process of creating links between farms and schools of appropriate scales. For schools with limited time, the database should be quick and easy to use. For farmers, access to an online database provides access to new markets at minimal cost.

Problem

School's food preparation capacity	<ul style="list-style-type: none">• Work with culinary schools to employ recent graduates in school food service in exchange for educational awards or forgiveness of federal education loans.• Work with the agricultural sector to create minimally-processed local food products that require less preparation.
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Research indicates that many schools lack the facilities and trained staff needed to prepare foods from scratch. However, the survey found that most schools have some capacity to prepare fresh foods, indicating that a lack of trained staff, rather than a lack of kitchen facilities, is the bigger barrier to preparing fresh foods.

recommendation.

Two options to address limited staff are:

1. Work with culinary schools to employ recent graduates in schools in exchange for educational awards or forgiveness of federal education loans
2. Work with the agricultural sector to create minimally-processed local food products that require less preparation

discussion.

School food services run on a very tight budget. Labor is a significant cost for many schools and has led to the demand for meals that require little to no preparation. A survey in Washington State found that 80% of schools have the necessary equipment to process and store fresh fruits and vegetables, but that labor costs limit their ability to prepare and serve fresh food (Sanger and Leslie 2004). Additionally, a 2007 ODE survey found that 91% of schools in Oregon have some portion of their food prepared on-site. Along with the recommendations above, additional research should quantify schools' ability to prepare foods from scratch.

Problem

The educational component	<ul style="list-style-type: none">• Pursue strategies to promote local foods in both the classroom and cafeteria.• Work with the Oregon Department of Education (ODE) farm-to-school coordinator to create educational materials and nutrition curriculum.
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From the survey, most schools that purchase local products are not featuring this in the classroom. In general, a disconnect exists between the cafeteria and the classroom.

recommendation.

Pursue strategies to promote local foods in both the classroom and cafeteria. Work with the Oregon Department of Education (ODE) farm-to-school coordinator to create educational materials.

discussion.

School meals are in direct competition with other foods that have significant advertising campaigns. Research indicates that promoting local foods through classroom education and field trips is an important factor in getting students to try new foods and eat more fruits and vegetables (Brillinger, Ohmart, and Feenstra 2003; Azuma and Fisher 2001). For example, experiential education for farm to school programs might involve visits to local farms where students would meet with farmers to learn how their food is grown and how it gets from the farm to their table. Other experiential education possibilities could include having students grow and prepare some of their own food. In the classroom, teachers can support farm to school efforts through lessons that focus on nutrition and healthy eating. Additionally, teachers can use food and agriculture as a means to explore science, literature, and other core subjects.

Problem

<p>Funding</p>	<ul style="list-style-type: none">• Support legislation to allocate money to schools to purchase Oregon grown products, and hire and train kitchen staff.
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Schools lack the financial ability to purchase local foods and hire the staff needed to prepare them.

recommendation.

Pursue legislation that would allocate money to schools to purchase Oregon grown products and support the hiring and training of kitchen staff.

discussion.

Price remains the fundamental barrier to farm to school programs. While schools and farmers need other forms of support to create successful relationships, providing school food services with funds should be a primary goal for Oregon farm to school advocates and future legislation.

Problem

Program evaluation	<ul style="list-style-type: none">• Create and adopt a formal program to evaluate farm to school efforts
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Currently, no system exists to evaluate the success of farm to school programs in Oregon recommendation.

Create a program to evaluate farm to school efforts in order to identify and share strategies and build off successes.

discussion.

In order to understand whether farm to school programs are achieving their goals, there needs to be a system to evaluate the programs' impacts. This evaluation program should focus on the effects of farm to school programs for students, schools, farmers, and the local economy. Below are examples of specific questions for evaluating the success of farm to school programs relative to each group.

Students:

- HEALTH: Are students eating more fruits and vegetables? Are they eating fewer high fat and high sugar foods? Are obesity rates changing?
- BEHAVIOR: Is student school performance improving? Is there any change in negative student behavior?

Schools:

- How has incorporating local products changed participation in school meals?
- Is the educational component working for teachers?

Farmers/Economy:

- Are schools providing new markets as intended?
- Are school sales helping local farmers staying financial viable?
- Are farm to school programs keeping more dollars in the local economy?

Problem

Coordination	<ul style="list-style-type: none">• Create strategies for the farm to school coordinators at the Oregon Department of Agriculture(ODA) and the Oregon Department of Education(ODE) to work together on education and outreach.
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As farm to school programs continue to grow, a need for coordination arises to document and share strategies, challenges, mistakes, and successes.

recommendation.

Farm to school coordinators at the Oregon Department of Agriculture(ODA) and the Oregon Department of Education(ODE) should work together to conduct education and outreach. These coordinators serve as the key informational hubs in Oregon’s farm to school efforts.

discussion.

Coordination is critical for the long-term success of farm to school programs. With limited time and money, schools have a limited capacity to develop farm to school programs. The farm to school coordinators at the both ODA and ODE play a crucial role in helping schools overcome the substantial barriers to creating and sustaining farm to school programs. Specifically, these coordinators have two primary roles:

1. Since the coordinators will be in contact with farm to school programs throughout the state, one of their roles should be to share successful strategies and help schools avoid common pitfalls.
2. Because of their position within larger state agencies, the coordinators serve as the link to a greater body of resources those agencies can provide.

Table 5.1 Summary of Recommendations

<u>Problem</u>	<u>Recommendation</u>
Distribution and delivery	<ul style="list-style-type: none">• Pursue options for direct sales via an online database.• Support development of local farmer cooperatives.
Access to information	<ul style="list-style-type: none">• Continue efforts to create a statewide database of farms and schools.
School’s food preparation capacity	<ul style="list-style-type: none">• Work with culinary schools to employ recent graduates in school food service in exchange for educational awards or forgiveness of federal education loans.• Work with the agricultural sector to create minimally-processed local food products that require less preparation.
The educational component	<ul style="list-style-type: none">• Pursue strategies to promote local foods in both the classroom and cafeteria.• Work with the Oregon Department of Education (ODE) farm-to-school coordinator to create educational materials and nutrition curriculum.

<u>Problem</u>	<u>Recommendation</u>
Funding	<ul style="list-style-type: none"> • Support legislation to allocate money to schools to purchase Oregon grown products, and hire and train kitchen staff.
Program evaluation	<ul style="list-style-type: none"> • Create and adopt a formal program to evaluate farm to school efforts
Coordination	<ul style="list-style-type: none"> • Create strategies for the farm to school coordinators at the Oregon Department of Agriculture(ODA) and the Oregon Department of Education(ODE) to work together on education and outreach.

Conclusion

Farm to school programs sit within a larger movement to restructure what we eat and how we practice agriculture. Efforts to reform school food will always struggle with the often-conflicting interests of education, nutrition, and agriculture. In addition to financial support for farm to school programs, we need federal and state policies that support the production of fresh, whole foods. Current farm subsidies focus almost exclusively on meat and dairy products to the exclusion of all fruits and vegetables save apples.

We face nothing less than a national eating disorder, in which the goal of bringing farm fresh foods into schools is but a part of the solution. Students will need more than the availability of fresh foods to combat rising obesity and a dangerous disconnection from the land. In addition to increased marketing opportunities, small and medium sized farms will need greater social and political support to remain viable in the wake of industrial agriculture and increasing development pressures.

As planners and public professionals concerned with the systems that make up our communities, we play a fundamental role in shaping the future of our national food system.

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