

**The Crunch Lunch Manual:**

**A case study of the  
Davis Joint Unified School District  
Farmers Market Salad Bar Pilot Program**

**and**

**A fiscal analysis model**

**by**

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<p>Davis Joint Unified School District Farmers Market Salad Bar Program</p>
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# Davis Joint Unified School District Farmers Market Salad Bar Program

## Introduction

### PROGRAM OVERVIEW

The Farmers Market Salad Bar of the Davis Joint Unified School District (DJUSD) is a self-serve lunch meal that includes an array of local, in-season fruits and vegetables sourced from local farmers. It was established with the dual purpose of providing students with the choice of fresh, nutritious produce and expanding opportunities for local farmers to sell their goods directly to schools. Called "Crunch Lunch" in Davis, it is a daily alternative to the regular hot school lunch.<sup>1</sup> It complies with requirements of the USDA's National School Lunch program by offering several protein sources, bread, and milk along with fruits and vegetables.

The salad bar is one element of a holistic program that links school gardens to classrooms through food, agriculture and nutrition curricula, supports teacher training for garden-based and culinary lessons, and organizes student field trips to local farms. In addition to providing healthy lunches, the Farmers Market Salad Bar program creates opportunities for real-life lessons about local agriculture and the environment. The experiential learning during lunchtime and in the school garden is reinforced in the classroom through innovative food, nutrition and gardening curricula that adhere to state standards. In addition, lunchtime waste reduction systems, including vermi-composting and recycling, strengthen student understanding of the relationships between the earth and the food we eat.

### PHILOSOPHY

The Farmers Market Salad Bar program is based on the premise that good nutrition and a healthy diet are related to positive academic and behavioral student performance in the classroom. A school program that integrates educational curriculum with garden activities, nutrition education, and healthy food choices in the school lunch program will contribute to improved health and overall student achievement.

A number of studies have shown the correlation between learning difficulties and diet.<sup>2</sup> For many children in the public schools, breakfast (if it is served) and lunch are the only nutritionally balanced meals they receive during the day. Although the National School Lunch program ensures a minimum standard of nutrition for meals served in schools, many children select à la carte items, which are currently not held to the same standards. During the last decade, school nutrition services departments have been under tremendous pressure to remain financially solvent. Labor costs and rising food costs have prompted food service directors to seek alternative methods of cutting

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<sup>1</sup> As of September 2002, the Davis "Crunch Lunch" model changed to an integrated salad bar/hot lunch meal. The separate salad bar was the initial model of the pilot project. (See page 11 for further information.)

<sup>2</sup> Cohen, Joel, *Overweight Kids: Why Should We Care?* California Research Bureau, December 2000.

costs. One of those ways is to contract with outside companies, such as pizza, taco, and soft drink companies, to sell food in the school. Oftentimes, these companies offer schools large sums of money for the opportunity to sell on campuses. Students respond to these products because of the intense advertising that surrounds them every day on television and in the culture at large.

As a recent alternative to this situation, some school districts have developed salad bar programs that offer students the option of eating fresh fruits and vegetables. The assumption is that this not only reinforces life-long healthy eating habits, but improves their overall school performance. Sometimes these salad bars are an integrated component of a comprehensive Farm-to-School program that includes produce purchased from local farmers, visits to local farms, school gardening, cooking lessons, and enhanced nutrition education.

Educators are beginning to recognize the power of environmental education as an integrating tool. A study published by the State Education and Environmental Roundtable found that schools using an educational framework called EIC (Environment as an Integrating Context) have higher performance on standardized tests in all subject areas, reduced discipline and classroom management problems, and increased enthusiasm for learning.<sup>3</sup> Farm to School programs offer environmental education as a part of their everyday lessons in the classroom, garden and cafeteria.

Farm-to-School programs support the philosophy of experiential learning. Educators know that children learn best when their learning in the classroom is reinforced by real life experiences. When classroom lessons are reflected in the world around them and integrated into their daily activities, students internalize the information presented to them. Farm-to-School programs provide many experiential opportunities for children to learn through activities that are integrated with and complement the classroom curriculum. As students are engaged in dialogues about food and farming, they learn about the importance of their food decisions and about the relationship of their choices to their own health and the health of the planet.

Daily activities in the school garden and nutrition information at the salad bar are linked to classroom lessons on the food pyramid and the natural cycles from seed to table and back to soil. At the same time, children build a sense of ownership and community by harvesting their own garden produce and seeing some of it in their school's salad bar. Through visits to local farms, students begin to understand how food is grown, where their food comes from and how agriculture relates to personal and environmental health.

In addition to the benefits to students and families, Farm-to-School programs provide new markets for local farmers by creating opportunities to sell their produce directly to school districts. By establishing systems for regular orders from local farmers, school districts are contributing to the viability of the small farmer and supporting regional agriculture. Combined with farm tours and visits from farmers to the classrooms, the program brings additional business to farmers through strengthened community awareness. Parents and students who frequent the farmers market will begin to make connections with the school's daily salad bar and will be more inclined to purchase

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<sup>3</sup> State Education and Environment Roundtable, *California Student Assessment Project: The Effects of Environment-based Education on Student Achievement*. March 2000.

from farmers who participate in the program.

Both schools and small farmers benefit from their participation in farm to school programs.<sup>4</sup> Schools provide students fresh, nutritious produce, while small farmers acquire new markets. Community and regional connections are strengthened in the process.

### **USING THIS MANUAL**

This handbook is part of an effort to support other districts interested in piloting a salad bar project. Ideally, we would like to see these programs institutionalized throughout school systems nationwide. However, recognizing that this is an incremental process, we hope that this manual will help others to take appropriate steps towards that goal.

With this in mind, the handbook focuses specifically on the salad bar component of the Davis Farm-to-School program. Although each district has unique characteristics and needs, many of the lessons learned in the Davis Farmers Market Salad Bar pilot project will apply throughout the region and beyond. Alternative programs and modifications to this model are offered at the end of the section on implementation, and much of the information in this manual is relevant to other farm-to-school projects that intersect with school food services operations.

This manual is organized as follows:

- The first section of the handbook is presented as a **Davis Farm to School case study** that includes generalized lessons and considerations for other districts.
- The second section is a **fiscal analysis model**. It addresses many financial issues and parameters necessary to evaluate the feasibility of the model.
- The third section is a **list of resources** for Farm-to-School efforts.
- Finally, **Appendices** are included and referenced throughout the text.

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<sup>4</sup> Schofer, Daniel et.al., 1999. Small Farmer Success Story, Bulletins 1-4 [*Marketing Fresh Produce to Local Schools: The North Florida Cooperative Experience; Cultivating Schools as Customers in a Local Market: the New North Florida Cooperative; Acquiring Capital and Establishing a Credit History: The North Florida Cooperative Experience; Success of the New North Florida Cooperative: A Progress Report on Producer Direct Sales to School Districts*] USDA, Washington, DC. [www.ams.usda.gov/tmd/publications.htm](http://www.ams.usda.gov/tmd/publications.htm)

# **DAVIS CASE STUDY**

## **Phase I: Planning, Fundraising & Organizing**

### **THE REGIONAL CONTEXT**

Davis lies near Sacramento in northern California's Yolo County, in the heartland of one of California's finest agricultural production areas. Surrounded by agricultural lands and nestled in the Putah and Cache Creek watersheds, the area is rich in natural resources. A highly productive cluster of sustainable and organic farms are located within Yolo County in the Capay Valley, a small agricultural valley about 45 minutes northwest of Davis. Farmers in this small valley provide abundant produce for Bay Area Farmers Markets and the Davis Farmers Market.

The Davis Farmers Market (DFM) is one of the most well known and successful farmers markets in California. The active participation by numerous community organizations, businesses, and individuals has established the DFM as a center of local community life and culture. The ambiance of this market attracts large numbers of local families and students, as well as visitors from California, the U.S., and abroad. The market serves as a community gathering place, tourist destination, and source for a wide range of direct-marketed fresh vegetables, fruits, flowers, prepared foods and crafts. As such, the DFM provides a unique forum that has fostered the development of many small businesses and has played an important role in the larger business community of Davis. Because it is so well established, it offered a ready-made structure for the farmers' market salad bar pilot project.

The city of Davis itself is a university community known for its strong commitment to progressive and innovative ideas, as well as a dynamic, involved citizenship. Davis has a highly educated population—over 60 percent of adults hold college degrees. The University of California at Davis (UCD) plays a prominent role in the city. In addition to contributing a diverse population of students, faculty and staff from around the world, UCD also hosts a wide range of educational and research programs, university organizations, and outreach programs. Many of these programs are related to agriculture, for example, the UC Sustainable Agriculture Research and Education Program (SAREP) and the UC Experimental Farm and Children's Garden. The wealth of resources within the city of Davis and the university community has been important in the development of the Davis Farmers Market and of progressive programs such as the Farmers Market Salad Bar project.

The Davis Joint Unified School District (DJUSD) serves the city of Davis and is comprised of approximately 8,900 students in eight elementary schools, two junior high schools, and one high school. The City of Davis has grown rapidly in the past several years, and the school facilities are straining to keep pace. This also applies to the Nutrition Services Department of the District, which is coping with outdated and undersized kitchen facilities and equipment. A new elementary school, new high school, and refurbished central kitchen are all in the planning and construction phases at the time of writing.

DJUSD's Student Nutrition Services Department operates out of one central kitchen, located at a high school where most of the lunch food is prepared, and delivered to the

school sites daily. No school breakfast program is currently in place. Davis has a relatively low proportion of low-income families, and therefore the percentage of students eligible for free and reduced meals under the National School Lunch Program is small (approximately 13% free and 3% reduced). An average of 1600 students daily (16% of the school population) utilize the National School Lunch Program.

### **PROGRAM INCEPTION AND ORGANIZATIONAL DEVELOPMENT**

The Davis Farmers Market Salad Bar project had its origins in 1999 in the conversations of a group of parents and concerned community members, several of whom had been active in establishing school gardens in the elementary schools. Inspired by the models in the Santa Monica-Malibu School District and the Berkeley School District, they recognized the opportunity to link Davis' existing vibrant school garden program to nutrition and health by opening a fresh produce salad bar for students' lunch.

Out of these conversations, a Davis Farm-to-School committee formed. It was comprised of parents and representatives from various farmer and community organizations. The committee met to discuss the possibility of starting a school salad bar program in the Davis Joint Unified School District similar to the one already in place in the Santa Monica-Malibu Unified School District.

In early conversations, the group solidified a philosophy of "seed to table," which incorporated planting, growing, tending, harvesting, cooking, serving, composting and recycling as essential elements of a comprehensive garden and salad bar program. Sourcing salad bar produce from local farmers was a priority, and the possibility of visits to local farms and conversations with local farmers were also important components of the program. At the same time, the group wanted to focus on helping teachers weave these activities into the educational curriculum.

The Davis group soon named itself the "Davis Farm-to-School Connection" and developed a vision statement:

*To educate and nourish students through a farm and garden-based experience that embraces the connections between agriculture, environment, nutrition, health and community. To celebrate the cycles and seasons of life by growing, preparing and eating fresh food. To integrate these principles into the curriculum and lunchroom.*

*To link students' active involvement in their school's garden with the opportunity to eat from a "farmers' market salad bar" as part of the school lunch program. Integrating the school garden where possible, the salad bar contains seasonal ingredients purchased from local farms that practice environmentally sound agriculture. This is reinforced by visits to local farms and farmers' markets. Waste from the salad bar and garden is recycled through on-site composting and Davis Waste Removal's recycling program.*

The Davis Farm-to-School Connection drew on members from a wide range of community organizations. These included the Davis Farmers Market (DFM), the University of California Children's Garden, UC Sustainable Agriculture and Research in

Education Program (UC SAREP), the California Department of Education (CDE), the California Integrated Waste Management Board (CIWMB), and the Community Alliance with Family Farmers (CAFF). In addition, several parents, school garden coordinators, PTA representatives and other community members were active participants. Although some Farm-to-School members attended as part of their paid work, many volunteered their time, ideas and energy.

Early on, the Davis Farm-to-School Connection group—now a loosely formed steering committee—recognized the need for a nonprofit organization to “house” the project. Finances for the project were being generated from outside funding sources. Some of the funds would be funneled through the school district, while other funds remained within the organization of the Farm-to-School Connection. This group needed the structure and the tax-exempt status of a nonprofit in order to legitimize further requests for funds and to lend a legal vehicle for distribution of funds. Fortunately for the Davis group, there was a 501 (c)3 nonprofit organization—The Davis Educational Foundation (DEF)—that had lain fallow for about a year and which needed an infusion of vision and energy. With an established ten-year history of working for students within the school district and a philosophy dedicated to improving student health and learning, personal responsibility and community awareness, this was a perfect fit for the Davis Farm-to-School Connection. DEF became the legal entity for the Davis Farm-to-School Connection project.

Coming under the auspices of the already established nonprofit organization afforded certain benefits that could be an advantage to any group external to a school district starting a salad bar type program, specifically it

- avoided the need to incorporate;
- avoided the need to make new by-laws, because they were already in place;
- allowed the formation of an official steering committee and an advisory board, which brought in members of the community;
- offered a means of requesting grant funds;
- offered a structure for setting up volunteer support;
- afforded a recognizable identity within the community separate from the school district.

During this period, the group understood the need to divide up the many complex duties of the project. Thus a committee structure was established with a member of the core group heading each committee and several members serving on more than one committee. The primary areas that required the attention of separate committees were school gardens (coupled with curriculum issues), salad bar, recycling, finances, public relations and policy.

For over a year prior to the launch of the first salad bar, a core group of Farm-to-School members met, researched existing models, articulated a concept of the program, wrote grant proposals, and built relationships with school district administrators, the DJUSD Board of Education, and staff and parents. It was primarily the work of these volunteers that built enough support within the Davis school community to initiate this project and accomplish the ongoing fundraising required to support it during its pilot period.

## **FUNDRAISING**

In the spring of 2000, about six months after the group had first met, Davis Farm-to-School Connection joined a nationwide collaboration to apply for a grant from the USDA Initiative for Future Agriculture and Food Systems (IFAFS) program. In mid-summer, they received funding to pilot the Farmers Market Salad bar program in three elementary schools. The district received \$46,235 for two years to implement the salad bar pilot project. Under the same grant agreement, other funding was provided to UC SAREP to evaluate the project, to CAFF to arrange farm tours for students, and to the CDE to explore ways to expand the salad bar program county wide and throughout northern California. The focus of the USDA grant was to support small farmers and provide them with new marketing opportunities while bringing fresh, seasonal produce to school lunchrooms. The specific goal in Davis was to establish a salad bar program in three elementary schools.

The Farm-to-School vision incorporated additional elements that were also funded by grants. A grant from the CDE's Nutrition Services Division (\$50,000) funded development of links between classrooms, school gardens and food service. The intention was to provide resources and teacher support to develop and enhance site-specific tools for teaching nutrition education. It was also intended to ensure that teachers were trained in ways to link curriculum to the school garden and salad bar. Farm-to-School Connection also received funding from UC SAREP for program support and community outreach.

Vermi-composting, waste diversion and recycling were also important parts of the whole program. These were funded at \$30,000 for one year by the CIWMB. Together these sources of support provided startup funds to initiate a comprehensive waste reduction pilot program in the fall of 2000.

Although early fundraising efforts were considerable, they were not enough for implementing the salad bar. Within three months of program implementation (described in following sections), the true costs of the pilot program became more apparent, and additional fundraising has been ongoing. To meet these needs, the Farm-to-School Connection has put considerable time and effort into forging relationships with private foundations and applying to them for support. Two major sources of support have been the Center for Ecoliteracy and Alice Waters' Chez Panisse Foundation, both located in Berkeley, California. At the end of the second year, a proposal was submitted to Kellogg Foundation and funding was secured for the third year of implementation.

The PTAs and school Site Councils of the three pilot schools were also approached for contributions, and some donations were made at the end of the first year.

The steering committee also began targeted fundraising in the Davis area through special events at the Farmers Market, individual mailings and requests. In addition, involvement and financial support were solicited from various community organizations during the first year. These included local businesses, the Chamber of Commerce, Rotarians, Kiwanis, Soroptimists and Women League of Voters, as well as the organizations that contributed to the steering committee. Many members of these organizations had links to the schools (through their own children), the Davis business community, the university and to the surrounding agricultural community. These wide-

ranging groups formed a diversified base of support that strengthened the total effort of the project.

### **BUILDING SUPPORT FOR THE PROGRAM**

The Farm-to-School Connection spent the first year building interest and support with local farmers, community members and within the administration of DJUSD and with the Board of Education. Various steering committee members held meetings with each of the following stakeholders during this time:

- Davis Farmers Market
- DJUSD Superintendent
- Student Nutrition Services Director
- Business Services Director
- Board of Education members
- Assistant Superintendent for Human Resources
- Representatives from CSEA, the classified workers union representing food service employees

All of these stakeholders continue to contribute directly to the DJUSD salad bar program.

During the first year, efforts to build support included networking with other salad bar programs that had already been established and had seen some successes. In the fall of 2000, key members of the steering committee visited two similar farmers market salad bar models operating in California, one in Santa Monica and one in Berkeley. At those visits, they observed the program in action and talked with important personnel, such as salad bar coordinators, food service workers, parent volunteers and others.

These visits were instrumental in giving Davis a first-hand look at how a salad bar worked. Conversations revolved around crucial issues such as the logistics of purchasing fresh produce from the farmers markets; payment arrangements for the farmers; means of transporting the produce to the school district; storage issues; federal regulations regarding portions to be served to the children; regulations concerning protocols of food preparation; labor issues involving food service workers; health and hygiene issues; children's food preferences; seasonality of produce and how that affected the offerings, and much more. All of this information was instrumental in informing Davis about how to proceed with the actual implementation of the program.

### **CONNECTING WITH LOCAL FARMERS**

Contacting local farmers and soliciting their interest is a crucial first step that must run in parallel with efforts in the community and within the school system. Without their willing participation, the goals of the program will not be fulfilled. The degree of success in establishing this essential connection depends on several factors. If there is an active farmers market in the area and if there is ready access to the farmers who sell there, it will be easier to establish a purchasing arrangement. If the farmers market manager is committed to the project and cooperative, it will be easier to facilitate the connections between farm-to-school personnel and the farmers. If the farm-to-school or salad bar coordinator has had experience working directly with farmers, on farms, or with direct marketing, the likelihood of success is much greater. In addition, the extent to which regional farmers are networked with each other is

important, because small farmers who make a living from direct marketing often rely on neighbor farmers to fill in produce if they are short during a particular week.

Davis is blessed with one of California's premier farmers markets, established in 1976 featuring about 60 regional farmers on any given day (year round 150 farmers cycling through), and patronized by about 7000-8000 community and regional visitors each week. The Davis Farmers Market Manager, Randii MacNear, has been very active and committed to the farm-to-school program from its inception. Indeed, she was one of the early instigators of it. For that reason, we had no difficulty in Davis establishing a connection with local farmers through the farmers market. If this arrangement is not available in other communities, organizers can connect with farmers through other agencies such as the Farm Bureau, Cooperative Extension Small Farm Advisors, the county Agriculture Commissioner, organic farming associations or the State Department of Agriculture.

When Renata Brillinger, the salad bar coordinator was hired, she made contacts with farmers primarily through MacNear. MacNear was instrumental in facilitating this portion of the program, introducing Brillinger to many farmers at the market on several occasions throughout the year. She also communicated with them often to encourage them to promote and work with the program. She provided Brillinger with a contact list of all the farmers market vendors, including names, addresses, phone numbers, and more importantly, the produce the farmers sold and seasonal availability. In addition, Brillinger sent a letter to the farmers on the market vendor mailing list, describing the program and asking for an expression of interest and details about their products. This produced about a 10 percent response.

This arrangement may not be appropriate in every school district. Even in Davis, after a few months, the situation changed. At various times during the year, Brillinger was unable to get the school's needs met by the core group of farmers she had established contact with early on. Sometimes this was because their produce became unavailable or they didn't show up on a particular market day, or they might have missed a delivery. Brillinger realized that she needed more than one potential source, so she began to look outside the farmers market. She made one contact through the neighboring Sacramento Natural Foods Coop, and this farmer supplied her with fruit for a short while. Also, she made contacts with other local farmers through contacts at the market and at the Davis Food Coop. In the end, her most reliable farmer came this way. His business was mostly wholesale accounts of fruit. Since he was used to larger accounts, he had already prepared a clear invoicing system, had established a regular delivery schedule, and was easy to communicate with.

Whatever a district's specific arrangement, it is necessary for someone to be in the position of keeping up regular communication with farmers and acting as link between the district and the farmers. With the current model in Davis (the maintenance phase), the district has hired a "forager" who fulfills this function. The forager is funded by grant money. In an ideal scenario, this person would be funded by the district.

## **ENLISTING SUPPORT OF THE SCHOOL BOARD<sup>5</sup>**

In November 2000, the Farm-to-School Connection made a formal presentation to the DJUSD Board of Education to introduce them to the concept of the Farmers Market Salad Bar, give them background information, explain the available funding resources, and emphasize the community support for the project. This presentation was considered a crucial first step in garnering widespread administrative support and laid the groundwork for subsequent negotiations with district administrators. In preparing for it, the committee proceeded slowly and deliberately in order to present a holistic vision of the program. Committee members prepared a small plate of appealing fresh fruits from the Farmers Market for each of the school board member. They also relied on visual slides to show children enjoying the salad bar at other schools where it had been successfully instituted.

Even though the Board of Education was not directly involved in day-to-day decision-making, approaching them was an important first step in garnering support for the program. It was particularly important to explain that external grant funds were paying for the pilot program and to assure them that the program would not cost the district extra money. It was also important to explain the nationwide context of the pilot program, and to present them with a clear, well-organized and comprehensive plan for implementation. These elements, in addition to the wide public support, convinced the school board of the value of backing the project.

## **WORKING WITHIN THE SCHOOL DISTRICT**

Efforts to build and maintain administrative support within the school district were somewhat more difficult than building enthusiasm in the community at large. School districts are the hub of many complex forces exerting pressure in several directions at once. They are accountable to the state legislature, the state department of education, the public at large, parents in the community, teachers and students. Most importantly, the district must remain financially solvent. Typically, the food services division is run as a separate business within the district, so it is vitally important that they remain in the black.

Often, new programs create more pressure and more work, and are an added cost to the district. In the beginning, Farm-to-School steering committee members in Davis were not fully aware of the extent of these pressures and how they would impact the efforts of the program. After more than two years of experience, committee members have learned (and re-learned) that it is extremely important to proceed slowly and work with the district, negotiating compromises at every step of the way. Attempts to proceed too quickly or by-pass district personnel only result in the project being delayed or completely blocked.

Most important in the Davis district was to establish good communication channels with the Nutrition Services Director and the Chief Business Officer (or his/her

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<sup>5</sup> For more information on enlisting school board support see Victoria Berends, "Influencing Policymakers to Enact School-Based Policies that Support Healthy Eating." Contact information: Victoria Berends, Marketing Manager, CA Project LEAN. P.O. Box 942732, MS-675, Sacramento, CA, 94234-7320. Phone: (916) 445.3500. Email: [vberends@dhs.ca.gov](mailto:vberends@dhs.ca.gov) or for Project LEAN: [www.CaProjectLean.org](http://www.CaProjectLean.org).

representative). Ideally, the person in the Nutrition Services Director position will remain for the life of the pilot project, to lend it consistency and a point of support within the district.

Originally, community representatives and the Nutrition Services Director had communicated directly and cooperated easily. In Davis, however, subsequent to the submission of the initial grant proposals, the Nutrition Services Director left her position and a part-time interim consultant was employed for the school year 2000/01, the same year that the first two salad bars were scheduled to open. Due to the interim nature of this person's appointment, the original timeline was delayed considerably. Contingencies such as these often arise, and it is important for steering committee members to be aware of changes at the district level.

It was not until a permanent full time Nutrition Services Director was hired six months after the first school salad bar was launched that appropriate procedures and communication channels were established and the second and third site launches could be planned. This experience underscored the essential need for leadership within the school district administration to ensure the success of the pilot program (refer to the "Lessons" section beginning page 11 for further discussion on this point).

A good working relationship with the district's business office is also very important. The primary concern of the Chief Business Officer is with the fiscal bottom line. It is his or her job to ensure that the Nutrition Services Department at least break even if not bring in some profit. New programs such as the salad bar can be perceived as an expense drain, requiring external grant monies to be brought in to cover possible additional costs. These issues can become quite complex and the way external monies are to be allocated must be agreed upon beforehand by all parties.

External grant monies usually come with stipulations about how the money can be spent and how it must be reported. Some districts have staff who are familiar with the ways grant monies must be handled, while other districts do not. Since many Farm-to-School programs are grant driven, at least in the start-up years, it is essential that relevant school district personnel be made aware of the requirements of the grant. Even if the district has a grant specialist on staff, he or she may not be familiar with the workings of the particular grant that funds their salad bar project. Selected members of the steering committee must establish regular lines of communication over funding issues and reporting duties. If this is not attended to in the beginning, difficulties can arise later.

### **PREPARING FOR THE FIRST LAUNCH**

There are many possible salad bar models that can be established in a school district. Some districts choose to bring in one or two local commodities, such as apples or oranges. Others opt to put on a salad bar only one day per week and eliminate the choice of hot meal on that day. Still others offer the salad bar as a component of the existing hot meal. Davis chose the most challenging route of establishing a five-day-a-week salad bar as a complete USDA-approved school lunch meal, an alternative to the hot lunch offering.

During the fall of 2000, three schools were chosen to become the first three pilot sites. The initial goal was to open a salad bar at two schools during the 2000/2001 school

year and open the third the following year. These three schools were chosen because they each had strengths in several areas:

- thriving school garden programs
- support from the principals and teachers
- involvement in a grant-funded lunch waste reduction pilot program
- strong parent volunteerism

## **Personnel**

In October of 2000, Farm-to-School Connection, in collaboration with DJUSD, hired a Salad Bar Coordinator as a half-time consultant to DJUSD. The job description of the Salad Bar Coordinator included the responsibility for developing the protocols and systems for enabling the operation of the Farmers Market Salad Bar in the three pilot schools. A crucial part of this task was to establish relationships with local farmers and maintain the systems for delivery, preparation, and recompense to the farmers. It also included promotional activities and communication with DJUSD administrators, school staff, parents and students. By early March, at the opening of the first school's salad bar, it became apparent that the Coordinator position required a full time employee, and the position was adjusted accordingly and paid for by DEF's account, which was comprised of previously raised grant money.

During the first several months of planning and implementation, the status of the Salad Bar Coordinator changed from a temporary consultant to a regular district employee. This was because the food service workers union contested the employment status of the Salad Bar Coordinator and the other food service staff that had been hired under temporary stipend positions. The union disagreed with the "temporary, consultant" status (external to the existing personnel structure) of the salad bar employees, and maintained that existing job descriptions adequately encompassed each of these positions.

As a result of negotiations, agreement was reached to adjust these positions. The Salad Bar Coordinator position became a district Kitchen Manager employee at a half-time level. The staff members who performed food preparation and lunchroom supervision duties were also hired as permanent part-time employees.

As the status of the project coordinator changed, certain aspects of the original role also changed. For example, in the original position, the Salad Bar Coordinator integrated activities related to nutrition education and recycling into her salad bar activities. After the re-negotiation, the position was more narrowly defined and several aspects of linking the salad bar to educational curriculum were out of the purview of the Kitchen Manager's duties.

DEF forged a partial solution to this dilemma by directly employing a half-time staff person to act as a liaison to the school district, to negotiate matters relating to the program, establish lines of communication between teachers and other members of the Farm-to-School Connection team, coordinate fundraising and perform publicity and outreach duties. This person's title is Farm-to-School Connection Project Director.

## **School Site Teams**

Prior to launching the salad bar, school-specific Salad Bar Teams were formed as advisory groups to the project. These teams consisted of the school principal or delegate, the Kitchen Manager, the Lunchroom Supervisors, a custodian, and parents. Ideally, student representatives, teachers, and lunchtime yard duty staff also form a part of this group. In Davis, each school had a different combination of these constituencies represented. The group met once or twice before the official launch to review considerations specific to the site, and to refine logistics. Within a month after the launch, another meeting was held to assess the progress and conduct troubleshooting. The group continued to actively provide marketing assistance and ideas for nutrition education related to the salad bar. The potential exists for this group to evolve into a student nutrition advisory council (often referred to as "SNAC") that works in conjunction with Student Nutrition Services to enhance the goals of improving student nutrition.

## **Planning, Fundraising & Organizing: Lessons from Phase I**

### **1. Conduct a readiness assessment.**

During the initial planning stage, it is important to do a thorough assessment of the readiness of the administration and school community for a salad bar program. As a result of our experiences in Davis, we have developed a template checklist of the considerations - a School District Readiness Assessment (see Appendix A). This checklist may not cover every contingency for every school district, but does provide an overall picture of the elements that need to be seriously considered early on in the process, and re-evaluated as circumstances change.

### **2. Make connections with local farmers.**

Start with the local farmers market if there is one in the community. Enlist the support of the farmers market manager. If there is no farmers market, try natural food stores or any place that organic produce is sold. Conduct web searches for farmers in your local area (web sites list family farms nationwide). Make regular contacts with the farmers in order to establish a relationship of trust with them. Visit their farms. Create a list of produce and seasonal availability as well as quantities available. Keep a record of farmers' normal schedule and try to arrange deliveries so that they do not have to go much out of their way. Set up a payment system that reimburses farmers quickly.

### **3. Take into account constraints on the Student Nutrition Services Department.**

In most school districts, Student Nutrition Services is a department within the Business Services Department, which is also responsible for administering maintenance and operations and new facilities construction. Although each school district has unique characteristics, resources and challenges, some characteristics are common to most Student Nutrition Services Departments:

- Financial resources are restrictive. Nutrition Services operate with "enterprise funds," which means that expenses must be covered by the revenue generated

by meal sales. The district's general fund revenue does not contribute to food services daily operation. In Davis in the school year 2001/02, for example, the revenue per student meal averaged \$2.14. The only other sources of income are adult meal sales and à la carte sales of snacks and lunches at the junior high and high schools. This creates pressure to minimize both labor and food costs.

- Pressure to reduce food and labor costs results in districts serving pre-packaged food items that require little staff time. Contracts with fast food providers and food service companies are another route districts often take to lower labor costs.
- Food service staff are typically underpaid and underemployed (to keep the district's payment for health benefits minimal). This can lead to high turnover and chronic shortages of regular and substitute workers.
- Food service workers are members of a union, which has its own restrictions and regulations. The Nutrition Services Department must cooperate with the union and take their concerns into account in its staff management. Unions negotiate job descriptions, and these pre-existing job descriptions can sometimes hamper innovative programs that require new systems and more flexibility.
- There are significant federal and state compliance requirements associated with the National School Lunch Program. For example, staff must ensure student eligibility for free and reduced meals, maintain nutritional standards, keep extensive records on meal participation and amounts of food consumed within each of the five basic food groups, and much more. This results in a significant administrative burden to the Student Nutrition Services Department.
- Food safety and hygiene issues have become paramount in recent years, contributing to the trend towards sterilized pre-packaged meals.
- School food services need to prepare a large number of meals within a 60-80 minute window of time. They then must be delivered throughout the district. This situation creates significant logistical challenges that are often responded to by serving portable food that can be quickly prepared and served.
- In recent years, there has been a trend towards centralized kitchens in an effort to make labor more efficient. This in combination with the pre-packaging trend has resulted in the removal of food preparation facilities at school sites.
- The "customer base" (i.e., students) can be very discriminating and easily bored. Also, particularly in urban areas, food services must consider diverse cultural food preferences when planning meals.

While the best of intentions may be motivating community members to advocate for alternatives to the existing meal program, differences may exist between the priorities of the community and those of the Student Nutrition Services and Business Services Departments. The most successful path to change will involve a thorough understanding of the general and specific context of each district. Ideally, common ground can be identified and shared objectives can be established so that

salad bar or other meal programs can be implemented in a cooperative and mutually satisfying manner.

**4. Work within the framework of the school district to the extent possible.**

Building supportive relationships within the district is important to the long-term viability of the program, especially when a new program effects changes in structures and institutional systems. It is important that there is solid support for these changes from within the district. Working within the framework of the district can help prevent cost overruns.

**5. Assess the necessary fundraising needs.**

Finances and fundraising are one of the most challenging aspects of implementing a new program. It is important to determine from the outset, in conjunction with school district administrators, which costs will be borne by the district and which must be covered by fundraising. The primary expense categories include:

- Food service personnel salaries, benefits and payroll expenses
- Equipment
- Promotion and marketing costs
- Educational materials and activities
- Departmental overhead paid to the district’s General fund to cover maintenance, utilities, etc. (usually a fixed percentage of total expenses; in Davis, this was approximately 6%).

Financial resources for the activities of the community organizing committee should also be taken into account, such as the costs of fundraising, organizing and raising community awareness and support for the program.

**Phase II: Implementation**

Each school district is unique and therefore plans for implementation will vary. The information below details the major considerations for implementing the Farmers Market Salad Bars started in Davis. Details specific to Davis are provided only as a reference point, and are not necessarily applicable to other districts.

After a year of planning, fundraising and community networking and six months after the first Salad Bar Coordinator was hired, The Davis Farm-to-School Connection launched the first salad bar at Pioneer Elementary School in March of 2001. The months leading up to the launch required an intensive effort focused primarily on the logistics and practical considerations for commencing meal service. The implementation timeline in Davis looked like this:

Spring 2000	Community members begin discussing and researching
Spring/Summer 2000	Grantwriting, presentation to the Board of Education
October 2000	Received first two pilot grants
October 2000	Salad Bar Coordinator started planning
Oct–March 2000/01	Work out details of implementation with Student Nutrition Services Director and staff
March 2001	First pilot school salad bar opened

The logistics of arranging the launch of a salad bar are extensive and complex. The sections below cover the details of these logistics. The following is a checklist of the elements that must be addressed:

- p Purchasing equipment and supplies
- p Arranging for kitchen preparation space, storage and refrigeration
- p Establishing mechanisms for delivering food from central kitchen to school sites
- p Sourcing, ordering, and procuring food from Farmers Market and other vendors
- p Delivering fresh produce to central kitchen
- p Hiring and training staff for food preparation and lunchroom supervision
- p Establishing record keeping systems for food consumption, meal participation, inventory and invoicing
- p Marketing and promoting the new program within schools and in the community
- p Recruiting and training parent volunteers
- p Establishing school-based salad bar teams

### **EQUIPMENT AND SUPPLIES**

The equipment required for preparing, delivering and serving salad bar meals can be acquired either through restaurant supply stores or sometimes through large food distributors. In Davis, the physical salad bar and all items for storing and serving the fresh produce was purchased for each school site. This cost \$2,000 per school. Since DJUSD has a central kitchen, only one set of equipment for food preparation was purchased. The cost of the equipment will vary depending on the resources already available, the number of school sites, school population, and other factors. In Davis by the second year, an additional \$3500 total was required for other central kitchen preparation and serving equipment for all three schools.

#### **School Site Equipment:**

School sites require the physical **salad bar** itself, **serving containers and utensils** for the produce, proteins, breads and toppings, **ice packs** to keep food cool, **salad dressing dispensers**, and **scales** for weighing food. A sample equipment list is provided in Appendix B.

- **Salad bars** are available in various lengths and heights. At the Davis elementary schools, the five foot length child-height bars are used. In addition to the actual bar, tray rails and sneeze guards were purchased. During the initial launch phase at each school, two bars were placed end-to-end and lines formed down both sides, thereby serving large numbers of students in a short time (i.e., 200-300 students per lunch period). Once the popularity leveled off and students became familiar with the meal service, this was reduced to one bar that students accessed by walking along both sides. The second salad bar was then sent to the next site for its launch.
- There are many choices to make in terms of specialized **serving containers** that set into the bar itself. After some trial and error, the containers used in

Davis were six inches deep and of various dimensions in height and width to accommodate foods consumed in different volumes. A diagram of a typical configuration is shown in Appendix C.

- **Serving utensils** vary, and some utensils are better suited to certain foods. Purchasing a diversity of spoons, ladles and tongs is recommended for maximum flexibility.
- In order to keep food cool during the lunch hour, **reusable ice mats** were purchased to lay in the bottom of the salad bar, then washed off and refrozen each day.

### **Central Kitchen requirements:**

Extra refrigeration space is required for salad bars because of the volume of fresh produce. At the central kitchen in Davis, each school site's salad bar required a minimum of approximately 70 cubic feet of refrigeration space. In addition, for three schools, a minimum freezer capacity of approximately 20 cubic feet and dry storage space of 25 cubic feet was needed. Ideally, more of each type of storage space would be available to facilitate stock rotation and to carry more back stock. However, districts have limited resources available to the entire Student Nutrition Services operations. Since the salad bar may be competing for space with the regular food services, it is often unrealistic to hope for more space.

Another consideration is that the temperature of food service refrigerators is often colder than optimal for most fruit and vegetables. For that reason, it is ideal to store many of these items (e.g., apples, tomatoes, citrus) in a cold room held at 50 to 60° F. As with most districts, this facility is not currently available in Davis.

State health codes require that a minimum of two deep sinks for washing produce be available, ideally three. In addition, work stations for three to five salad bar prep employees at one time are needed (for three school sites), depending on how much their shifts overlap. Each station comprises approximately four feet of counter space for chopping and cleaning.

## **LABOR<sup>6</sup>**

### ***Kitchen Manager***

To coordinate and oversee a daily salad bar program, one half-time Kitchen Manager (previously "Salad Bar Coordinator") was employed (see Appendix D for job description). This person's duties include food procurement, menu development, supervision of Lunchroom Supervisors and Kitchen Assistants, and record keeping. The

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<sup>6</sup> Note: This section describes the start-up pilot phase of the Davis Program. In this phase, labor was organized according to the positions described. As the program moved into a maintenance phase, labor functions have been consolidated and salad bar procedures, particularly preparation procedures, have become more efficient.

Kitchen Manager spent approximately one hour at the central kitchen each day, and visited each site at least once each week during lunch service. During launch periods, the Kitchen Manager was present every day for several weeks at the new site to oversee a smooth introduction and troubleshoot as needed. In addition, the Kitchen Manager visited the Farmers Market once each week to pick up produce and maintain relationships with the farmers, and also ordered produce by phone and email, and tracked the product inventory on a daily basis.

In Davis, it was initially expected that this half-time position would manage three to five school sites before more hours were required. However, based on our experience to date, we have learned that a more realistic allotment is 75% FTE for three to five sites, perhaps requiring more time during school launches.

**Lunchroom Supervisor**

For the Davis model, each school site required a Lunchroom Supervisor to set up the salad bar at the school site, supervise the children as they came through the lines, clean up and restock the bar, and keep records of amounts consumed. To facilitate this process, volunteer parents are used each day, and are essential during the introductory days of the program because of the high participation and children’s unfamiliarity with the serving procedure. The set up requires approximately 20 minutes, the clean up requires 40 minutes, and lunch supervision varies depending on the school lunch schedule. Lunchroom Supervisors were hired at 2.5 hours per day; however, it was common for Lunchroom Supervisors to use overtime to accomplish the necessary paperwork required by the National School Lunch Program — 3 hours would be a more realistic daily shift.

**Central Kitchen Assistant**

In addition to the Salad Bar Coordinator, a kitchen assistant position was necessary at the central kitchen for the food preparation and cleaning serving containers. This person was hired at 4 hours per day for the first salad bar. In the beginning, food preparation took the entire 4 hours. However, as workers became more accustomed to prep techniques for fresh produce, they became more efficient. The addition of two more schools required adding only 3.5 hours per school for food preparation.

**Summary of Paid Positions**

<b>Position Title</b>	<b>Role &amp; duties</b>	<b>Number needed</b>	<b>Amount of time needed</b>
<b>Salad Bar Coordinator</b> <i>(later classified as "Kitchen Manager")</i>	Oversees entire program; food procurement; menu development; supervision of staff; record keeping	One per district	75% (for three schools)
<b>Lunchroom Supervisor</b>	Supervises the flow of children through the lunch line; sets up salad bar; weighs food pre-and post-salad bar each day; keeps records for USDA; cleans up after salad bar	One per school	2.5—3 hours/day/school <i>(workers report frequently requiring 15-30 minutes overtime)</i>
<b>Kitchen Assistants</b>	Prepares food for salad bar; packs for transport; cleans kitchen space; washes serving dishes	One per school	3.5 hours/day/school <i>(based on three schools—more time needed occasionally)</i>

## **STAFF TRAINING**

Many food service personnel are not familiar with techniques for preparing fresh produce on a large scale. Some of the foods may be unfamiliar or even foreign. Preparatory training, in addition to on-the-job instruction as foods come into season, will almost certainly be necessary. This must include proper hygiene, washing, handling, cutting, and storage requirements for fruits and vegetables. The Lunchroom Supervisors must know the names of the produce in order to educate the students. If possible, they should also be aware of the origin of the foods, both in terms of its native origin and where it is grown locally.

In Davis, the original Salad Bar Coordinator came into the job with experience and familiarity with the food and how it is grown, and she passed this along to other staff. Local farmers were helpful in providing information to the Coordinator as needed. As a team, various serving methods were tried to determine student popularity, and these procedures were passed along on the job to new staff. Eventually, as the program becomes institutionalized, more formal procedures manuals and staff training would need to be implemented.

## **DELIVERY TO SCHOOL SITES**

In Davis, the meals were delivered each day from the central kitchen to the school sites in the DJUSD food service truck. To maintain freshness, this truck should ideally be refrigerated, but this was not available in Davis. The salad bar food was packed directly into serving containers, and then into large insulated carts on wheels for ease of transportation into and out of the truck. These carts were already available and not in use by the district, and suited the purpose well. Restocking the salad bar occurred directly out of this cart during lunch time. At the end of each meal, the leftover food was repacked in the cart for pickup, along with the dirty serving containers and utensils which got washed at the central kitchen and sent back the next day. Only the salad dressings, crackers, leftover bread, and toppings such as croutons, raisins, and sunflower seeds remained at the school site.

Loading this additional cart on and off the delivery truck requires extra time (in Davis, approximately 10-15 minutes each day) which must be allotted in the schedule of the delivery driver.

## **FOOD PROCUREMENT AND DELIVERY**

In Davis, the Farmers Market Manager helped enormously with initial introductions between the Salad Bar Coordinator and local farmers selling at the Market. Over time, the Coordinator developed additional contacts and relationships with other local wholesale farmers. For the first year, an emphasis was put on purchasing organic produce whenever possible—approximately 80% was organic. This level decreased to 41% during the second year because the volume of organic produce required for three schools was not regularly available.

During the early stages of the project, the Kitchen Manager placed weekly orders by phone and then picked up the produce in a personal vehicle at the Wednesday and/or

Saturday markets. As the volumes and items became more predictable, and as relationships evolved with specific farmers, orders could be placed once a week, and in some cases minimum orders were achieved and farmers were able to deliver directly to the central kitchen. It is expected that with the addition of more schools, almost all deliveries will be made to the central kitchen by the farmers, thereby eliminating the need for a pickup by the Kitchen Manager. Exceptions may continue to exist for specialty items purchased in small volumes. (See Appendix E for Guideline for Daily Food Quantities Ordered; see Appendix F for each school's Weekly Produce Demand List; see Appendix G for sample menus.)

In conventional school district procurement procedures, one or two calls are placed to the central produce distributors. By contrast, this salad bar model requires communication with several farmers on a regular basis. Time must be allotted within the job of the Kitchen Manager to make these calls, especially in the initial pilot phase while systems are being created and relationships are being built. It is expected that if the program expands, personnel will be able to establish contracts in advance and set weekly delivery volumes so that both farmers and Student Nutrition Services staff can have reliable expectations.<sup>7</sup>

Some of the issues that arose in Davis related to food procurement from small farmers were:

- **Reliability** — shortages in orders occurred with some frequency, the result of variables in small farm operations such as labor shortages, poor weather that influenced availability, and other circumstances that small farmers are less able to accommodate than large farmers and distributors.
- **Packaging** — many of the small farmers did not use the same standardized packaging or units used by distributors, creating challenges in storage, price comparisons, and sometimes the quality of produce if not packed well.
- **Infrequent, irregular, or inconvenient delivery schedules** — Many farmers were not able to deliver directly to the school, creating a need to pick up the food at the market. For farmers able to deliver to the central kitchen, challenges remained in finding delivery times that worked for both the farmers' schedules and also for Student Nutrition Services, which typically receives deliveries early in the morning when production is taking place.

Payment to farmers is arranged differently in different school districts. In Berkeley, for example, funds were dispersed through the Berkeley Ecology Center, which also officially sponsors the Berkeley Farmers Market. They vetted orders and paid the farmers directly at the market.

In Davis, in the earliest days, payment to farmers was handled through a collaborative arrangement between the Davis Farmers Market and CAFF. In subsequent weeks, the Kitchen Manager submitted farmer invoices to the DJUSD Student Nutrition Services Director who authorized payment as for any other account. A check was made payable

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<sup>7</sup> In the maintenance phase of this program, the district has decided to augment the ordering and delivery system by hiring a district "forager." This is a person whose responsibility it is to maintain contacts with regional farmers, keep records of their available produce, consult with the Kitchen Manager on the district's weekly menu needs and facilitate the ordering and delivery process. This is approximately a 20% position and is currently paid through outside grant money.

to the Davis Educational Foundation (the nonprofit organization representing the salad bar project) which then disbursed the payments to each farmer. This eliminated the need for the school district to handle several small accounts. Payment was made on net 30-day terms, an arrangement that was important to the local farmers.

## **RECORD KEEPING**

In order to be compliant with USDA's National School Lunch Program reporting requirements, school nutrition services departments must keep daily production records. These records indicate the volume of food served, the items, and the number of servings consumed for each item. To keep these records, the salad bar Lunchroom Supervisor must weigh each container of food before it is placed into the salad bar, and then weigh it again after the lunch period is over. The resulting figure indicates the volume in weight served. The USDA provides standardized figures for the number of servings per unit for many foods, and these figures are used to calculate the daily number of servings for the salad bar produce. The daily production record used to report these servings in Davis is included in Appendix H.

Although it is not required by the National School Lunch Program, a tally of the number of students choosing the salad bar (distinct from those choosing the hot meal) is recorded by counting the number of trays used. This allows for an internal evaluation of the popularity and viability of the meal alternative. These figures become particularly important in the evaluation of the success of the program, and are used in future grant proposals.

## **MARKETING AND PROMOTION**

The format of the salad bar is quite different from typical school lunch programs, and this program cannot be initiated without careful communication with the school population and Student Nutrition Services. In addition, the unique features of the Farmers Market Salad Bar, such as the local, seasonal produce and the use of sustainably grown produce, may not be immediately apparent to an observer. Promotion of the program is extremely important because the fiscal viability of the salad bar model is largely dependent upon the participation of students and adults. The labor costs to prepare a salad bar meal for 250 students is not significantly higher than it is for 150 students, yet the higher participation can make a significant difference in defraying costs. In addition, to achieve the educational farm-to-school and nutritional goals, promotion is essential, as is education of students, teachers and parents. All of these factors make it essential to conduct marketing activities prior to a launch as well as periodically on an ongoing basis.

A wide range of marketing activities is possible. What follows is a description of the activities that have been undertaken in Davis prior to a school site launch. Many other ideas have been generated in Davis to be used as the project develops. The accompanying educational elements are covered later (e.g., farm field trips, curricular linkages with school gardens and nutrition lessons, cooking in the classroom, etc.), all of which serve to raise awareness and appreciation of the salad bar meal option.

**Pre-Implementation Packet for School Principals:**

Good communication with the principal is essential to the success of the salad bar program, and a supportive principal can be a huge ally. At least one month prior to the intended launch of a salad bar at a Davis school site, the Kitchen Manager prepared and delivered an informational packet to the principal. In addition, the Student Nutrition Services Director and Kitchen Manager met with the principal to discuss the contents of the packet and address specific site considerations.

**PTA Presentations:**

Within a month of the launch, a presentation was made at a PTA meeting. The intention of the presentation was to familiarize parent leaders with the program and to enlist their support and enthusiasm for it. The 15-minute presentation outlined the components of the program, including the nutrition and garden educational benefits. The presentation stressed the importance of high participation for its success and encouraged parents to promote the salad bar to their children at home, and to purchase lunch themselves when visiting the school.

Adult meal sales have the potential to increase revenue since adults can be charged more for a self-serve salad bar meal. Promotion to teachers, other staff, and parents can boost sales significantly. In Davis during the school year 2001/02, over \$6,000 in adult sales was made with the salad bar. The PTA of one school in Davis made a gift of a free meal to each teacher when the salad bar opened.

**Parent Handout:**

The month prior to the launch, an informational handout was sent home to each family in conjunction with the monthly Student Nutrition Services menu, reminding them of the launch, the meal cost (same as the hot lunch) and the starting date. This handout was produced and paid for by the Student Nutrition Services Department. It was printed on the back of the monthly lunch menu and circulated as it is every month.

**Newsletter Articles:**

School newsletters included informative and interesting articles to promote the salad bar prior to its launch and on an ongoing basis, to promote its use and value. The articles focused on nutrition education for students and parents, updates on the salad bar, interviews with local farmers, and announcements of related events such as special Farmers Market programs. In Davis, these articles have been written by the Salad Bar Coordinator, student journalists, and members of DEF. Each school handles the production of its newsletter differently and specific arrangements were made at each site.

**Staff Meeting Presentations:**

Within two weeks of the salad bar launch, a 20-minute presentation was made at a staff meeting. In Davis, this included serving a salad bar meal, at the discretion of the principal. The presentation covered the following topics: description of the program, including the nutrition and garden education elements; changes in procedures for teachers, secretaries, yard duty (as required by site); cost of adult meal; sign up for salad bar classroom presentations to students.

### **Presentations to students:**

The week prior to the launch, 30-minute student presentations were conducted with the school student population. Presentations were made in groups of 60-80 students (i.e., two or three classrooms at a time) in the multi-purpose room where the lunch was served. The presentations covered: introduction to the salad bar; hygiene and appropriate behavior; minimal nutritional requirements (i.e., three of five food groups in sufficient amounts are needed).

These presentations were critical to the early success of the salad bar, for several reasons. First, they provided a promotional opportunity, and created excitement and anticipation among the students. Second, reviewing the procedures (in fact, doing a practice run with empty salad bars) increased student familiarity with the new meal format, which facilitated the introduction of the salad bar. This was especially important to move students through the meal line as quickly as possible—lines that were much longer due to the popularity of the meal. Third, the presentations afforded an educational opportunity to familiarize students with the concept of food groups, local agriculture, and the seasonality of foods.

### **VOLUNTEERS**

Parent volunteer help in the first one to three months was essential. The fact that the children were suddenly presented with a self-serve, non-packaged meal with several food choices presented immediate challenges in terms of tidiness, hygiene, adequate nutritional selections, and pacing of the meal line. The initial popularity of the meal resulting from its novelty led to increased overall school lunch participation. To expedite this, the presence of adults helped manage behavior, kept the salad bar well-stocked and tidy, and answered student questions and observations. As students became increasingly familiar with the meal format, many of the behavioral issues receded or disappeared altogether.

During the first week or two of the launch, typically two paid staff (including the Kitchen Manager and the Lunchroom Supervisor) plus one or two parent volunteers was sufficient to manage the lunch line. This additional volunteer adult presence was also particularly helpful in that it provided the Kitchen Manager flexibility to make procedural and logistical modifications to improve the meal service. Parent volunteers continue to be an important element of the day-to-day functioning of the salad bar, although in Davis the level of volunteerism has decreased as the salad bars have become established.

In Davis, we are considering the possibility of creating either paid or volunteer positions that would combine salad bar supervision duties with lunchtime recycling program supervision. One person each day would set up the recycling station in the lunch area, then be available with the salad bar for the first half of each lunch period. He or she would then move to the recycling station for the second half as students finish eating and start to clean up their lunch. This person would then return to the salad bar for the beginning of the next period. The same system could work by similarly employing yard duty staff to move between the two areas. This system is being tested informally at one of the Davis schools with good results.

## **Implementation: Lessons from Phase II**

### **1. Successful implementation depends on buy-in and active participation of the Student Nutrition Services Director.**

It is crucial that the Student Nutrition Services Director and members of a salad bar committee have a mutually respectful and collaborative relationship. Buy-in from the SNS Director is essential because of the many details specific to the industry of school food service. This factor cannot be overemphasized. Successful implementation involves working within the complex service provision requirements of the district. The district is under many federal, state and community regulations and guidelines for providing healthy and nutritious lunches to children without incurring undue costs. These regulations and guidelines also apply to the salad bar, and it is essential to develop a cooperative relationship with the Student Nutrition Services Director who is accountable for meeting industry standards.

### **2. Personal relationships with farmers are essential.**

In most regions, small farmers do not have centralized delivery systems, and produce orders must be placed with each individual. In some cases, communication, invoicing, packaging and delivery need to be negotiated. Farmers need to make adjustments fit with the limitations and needs of school food services and vice versa. The potential economic benefits to farmers can be used to encourage their involvement. A good personal relationship between farmers and the person who purchases on behalf of the school district (usually the Kitchen Manager) is very helpful, and it is also beneficial for this person to have a knowledge of farming and farmers' markets.

### **3. Salad Bar Teams build broad alliances within the school.**

School-based teams (parents, teachers and staff members) bring varied perspectives and potential solutions to the program and can result in smoother operations and greater school-wide awareness and support of the salad bar program. The Salad Bar Team at each school should also include the Director of Student Nutrition Services. If the Farm-to-School program is multi-faceted—salad bar, nutrition education, composting and recycling, and school garden—it is especially important to have representatives from each of these sectors on the school team.

### **4. A strong volunteer corps is important for the initial several months.**

The probable high lunch participation in combination with the learning curve of staff make the presence of volunteers invaluable. Ideally, two volunteers work each lunch hour and help with cleanup for the first month, possibly tapering off to one volunteer and eventually none.

### **5. Presentations to students facilitate a smooth salad bar launch.**

Introducing students in advance of a launch to the appropriate behaviors, hygiene and nutritional aspects of the salad bar positively affects the early days of the

launch. This is especially helpful because that is also when participation tends to be the highest. The presentations also serve as a promotional vehicle.

**6. Program promotion to parents increases student participation.**

In many families who pay full or reduced lunch prices (who are not eligible for free lunches), the parents are the decision-makers about their children's lunch purchasing. Parents need to be educated about the value of the salad bar meal so that they can both encourage their children to choose the salad bar and can respond to the interests of the children in selecting it themselves.

## **Phase III: Expansion & Institutionalization**

### **SUCCESSSES AND CHALLENGES TO EXPANSION**

Eighteen months after the implementation phase began in Davis, and over a year after the first school was launched, there were three sites operational on a daily basis. Some of the successes include:

- Students select an average of 3 to 3.5 servings of fruits and vegetables at each salad bar meal, in contrast to an average of less than 1 serving at the hot meal.
- Participation in the startup phase (i.e., the initial 3 months) for each of the three schools exceeded the Break Even Point. In other words, the number of meals sold more than covered the expenses of producing them (the Break Even Point is described further in the Fiscal Analysis Model section). Participation at the first school, whose salad bar has been open for over a year, dropped below the break even point within four months of operation. (Appendix I shows participation trends for all three schools.) It is not clear yet whether the drop in participation observed in the first school will be replicated in the other schools during the second year of implementation. Therefore, long term trends are difficult to determine at this point.
- During the last four months of the 2001/02 school year, with three schools operating salad bars, purchases from local farmers averaged \$675 per week. Anecdotally, several farmers report that this program holds the potential to make a significant financial difference in their operations.

The concurrent challenges to continuing the Farmers Market Salad Bar program fall into these categories:

- Labor costs and issues
- Ensuring a reliable and sufficient local produce supply
- Maintaining adequate participation

A summary of the current challenges and considerations for expanding beyond these three sites is presented below, as well as some ideas for responding to the challenges. As Davis looks ahead to expanding and institutionalizing the program, these challenges and their potential solutions shape the discussion and will influence the decisions of DJUSD administrators and the school community.

### **LABOR COSTS AND ISSUES**

Labor costs are typically the largest category of expenditures for Nutrition Services Departments, and the salad bar program is no exception. In Davis, salad bar meal preparation costs more per meal than the hot lunch since the food is not prepackaged. In addition, the need for an additional staff person at each school site to set up, supervise and clean up the salad bar adds to the labor costs.

One way to move towards institutionalizing the salad bar (and therefore reducing costs) is to invest in production equipment that reduces labor costs. Some possibilities include industrial lettuce washing and chopping equipment and fruit sectioning machines. It could also prove cost effective to purchase equipment that vacuum packs produce in volume, because this would increase the efficiency of kitchen labor. Purchasing meat, cheese, and eggs that are already cut or shredded also helps, although this can drive up the food costs, and a cost-benefit analysis must be done first.

In addition to the economic benefits of reducing and mechanizing the food preparation tasks, an added benefit is the reduction of food service staff injuries due to repetitive stresses and strains that can occur with chopping.

In some areas, it may be possible over the long term to encourage farmers to add value to their product by washing, cutting and bagging some of the produce prior to delivery. This will increase the cost of the food, but may be more economical if done on a large scale individually or cooperatively by the farmers. There is one very successful model of a farmer cooperative in Florida that supplies local school districts with washed and cut leafy greens (24,000 pounds in 1999), as well as cole slaw and some fruits.<sup>3</sup> This kind of effort requires initiative and organization on the part of local farmers. They may be encouraged to take this initiative if it can be shown that there are economic advantages in terms of increased marketing to school districts.

Another labor-related issue is turnover and transition of staff. When staff leave, remaining staff and managers often have to fill in and work overtime during the transition periods, thereby increasing labor costs.

Turnover can also create a break in continuity and expertise. In Davis, the original Salad Bar Coordinator brought with her a history of working in food and sustainable agriculture education. When she left the position, a new permanent replacement had not been hired, so she was unable to transfer her knowledge to the new coordinator. When a permanent replacement was hired, he came with a background in the food service business. Although more familiar with conventional food service distribution systems, this person had less understanding of and experience with local purchasing, working directly with farmers, promoting sustainable agriculture and nutrition education and fostering classroom curricular links. This resulted in additional time needed to educate him about the local farmers market, introduce him to local farmers, re-establish the systems for processing weekly orders and familiarize him with the program's objectives.

Changes in personnel ultimately add costs to the overall program, and they require continuing dialogue with the district to ensure that the goals of the program and the requirements of the grants funding the program are being adhered to. Other models discussed later in this manual have the potential to decrease labor costs because they use different distribution structures.

### **ENSURING A RELIABLE AND SUFFICIENT LOCAL PRODUCE SUPPLY**

When school Nutrition Services Departments deal with conventional produce distributors, they can almost be guaranteed that their food items will be delivered regularly, in standard units, and with very little advance notice required. Although

conventional produce prices are subject to some fluctuations due to weather, their industrial scale and widespread sourcing helps modulate these variations to a much larger degree than is the case with small farmers. Working with several local small farms, particularly initially, does not provide this same standardization and reliability, and this can be a disincentive for a district.

As early as possible in the project, clear systems need to be established between the district's produce buyer and the farmers for accommodating supply and demand. These systems need to be agreed upon by both parties, and must be both reliable yet flexible. Reliability and consistency of supply is crucial for the school district in order to offer students quality produce on a daily basis.

At the same time, some flexibility must be incorporated into the system to accommodate variations in weather or a particular farmer's ability to supply a particular product. The structure of a salad bar is inherently flexible to some extent since specific fruits or vegetables can be substituted for shortages of others without affecting a fixed menu. Also, a system can be set up for farmers to communicate shortages of supply, changes in delivery schedule, and other supply issues well ahead of time.

However, from the school district's perspective, their demand must be met one way or another. They have a strong incentive to meet this demand in a way that is cost-effective, efficient and compliant with state and federal regulations. Therefore, it is crucial for the farmer to establish a reliable delivery system. With two days' warning, districts can order from their conventional distributor to cover shortages. The produce buyer should develop multiple contacts for ingredients to cover inevitable shortages caused by unfavorable local weather conditions, crop failures, and other shortcomings that arise in the business operations of small farms.

Even though Davis has the benefits of a strong local Farmers Market and access to a variety of produce year-round, this does not guarantee a reliable supply of local produce to the schools. We have learned in Davis that one of the major challenges facing the program is finding a way to work out a reliable and consistent delivery system that satisfies both the demand side (for the district) and the supply side (for the farmer).

There are various potential responses to this issue of local supply, some of which have been tried in other regions, and others which are still ideas. One possibility is to form farmer cooperatives with a common distributor or produce broker, which would provide a single contact for the school district, and would hopefully improve the reliability and availability of local produce. This has been very successfully developed in North Florida, where farmers collectively provide thousands of pounds of greens (washed, chopped and bagged), berries, melons and grapes to school districts.

Another idea is to create a position of a district "forager" to source local products and arrange for sales with individual farmers. This has been done in Davis in the third year of the program (the maintenance phase). Currently grant funding supports this position; however, community groups, local businesses and local government could share the costs and benefits of such a position. In other areas, existing locally-based produce distributors may be willing to provide the linkage between the schools and farmers.

Some school districts that are committed to the Farmers Market Salad Bar model have found ways to incorporate the pickup of produce at the weekly market into the work schedules of existing delivery drivers and other staff. This is the case in Santa Monica Unified School District. Each of these solutions requires time to develop new systems and relationships, and various regions will develop their own solutions that depend in part on the opportunities and resources available there.

### **MAINTAINING ADEQUATE PARTICIPATION**

In order to expand district-wide, the cost of the salad bar (food, supplies and labor) must not exceed the income generated. In addition to attempting to reduce costs, participation must be maintained at a level to support the program. We anticipate that participation will decrease after the initial novelty of the salad bar wears off. In the first Davis school, this has been the case. In the other two schools, participation has remained very high, although in the fourth month of operation, there was a slight drop. It is too soon to know whether the first school is atypical or whether this is a trend that will be duplicated throughout the schools as time passes. We need to gather more data before we can determine whether this is a typical trend.

One challenge in maintaining enthusiasm for the salad bar among students is related to seasonal fluctuations in produce. Spring strawberries may bring high participation and long lines, but winter vegetables may prove to be less appealing to students. In addition to feeling less drawn to salads compared to hot foods during the winter, students may become more quickly bored with the selection, which rotates less frequently. A possible response is to add hot items to the salad bar during the winter, such as soup, stew, baked potatoes, taco or burrito bars, etc.

To maintain interest and participation, the Nutrition Services Department could consider an ongoing marketing/promotion/education strategy targeted at students, staff and parents. Ideally, this would be part of their ongoing work in operating the salad bar. Some of the unique and important aspects of the program, such as the use of local produce and organic/sustainably grown products, the relationship to local farmers and farms, and the connections with school gardens, need continual education and promotion. Some possible educational and promotional strategies include:

- establishing a Student Nutrition Advisory Committee
- creating links to school garden lessons and classroom nutrition lessons
- taste testing in-season fruits and vegetables
- organizing visits to the school by local farmers
- arranging student trips to local farms and the farmers market
- establishing a mini-farmers market at the school site
- harvesting from the school garden for the salad bar
- organizing visits by chefs offering cooking classes
- publishing back-to-school notices and articles in the school newsletter
- giving presentations
- posting on a school bulletin board to feature salad bar items
- posting a "fruit of the day" in the cafeteria
- showcasing the salad bar at school Open Houses and other events

## **LOOKING AHEAD IN DAVIS: INSTITUTIONALIZATION**

Ultimately, the success and sustainability of a salad bar program will depend on the school district fully incorporating it into its ongoing operation. This will take time—we estimate up to 10 years before the district can accommodate all the necessary system changes. Until then, outside groups, such as Davis Educational Foundation, will need to continue to support their district's efforts in any way possible, including ongoing fundraising, promotion, marketing, foraging, help with logistics, and evaluation.

In response to the challenges specific to the Davis project, several modifications have been put in place for the 2002/03 school year. Grant money has been raised to continue to support the purchase of production equipment and to support the district, primarily in the form of staff time. Additional plans are described below:

- (i) Rather than offering the salad bar as a complete meal distinct from the hot meal, the salad bar is incorporated into the hot meal line, giving all students access to fresh produce. They have a choice of entrée, either cold, salad bar entrée, or hot lunch entrée. This reduces the staff time needed to supervise two separate meal lines, and reduces the preparation time for the salad bar, which will include only fruits and vegetables and not the protein and bread items.
- (ii) Using this new model, plans include opening an additional four schools. As of March 2003, seven elementary schools have a salad bar program and by fall 2003, all eight elementary schools will have it.
- (iii) Cooperation between Nutrition Services and the district's Garden Coordinator include linkages between garden lessons and the Crunch Lunch's seasonally featured vegetables and fruits.
- (iv) The Nutrition Services Director is developing a year-long marketing plan for the salad bar in an attempt to maintain high participation. In addition, a volunteer from the community is preparing a business plan for the program to address the long-term fiscal considerations.
- (v) The addition of a new position of "broker" or "forager" has been instituted. This position is funded and managed by DEF to provide a linkage between the district's Kitchen Manager and local farmers, facilitating the sourcing of produce and communication between the two entities.

## **Modifying the Model: Alternatives to the Stand-Alone Salad Bar**

The model that has been used in Davis is the most intensive — daily year-round salad bar operation incorporating local fruits and vegetables, the majority of which are

organic. It is also the most costly because it requires almost complete processing of the ingredients by the kitchen staff, and because the cost of local, organic produce is higher than produce obtained by a broker. A school district may want to consider other models that are less intensive. Some mitigating factors might include:

- startup funding may not be available or may be quite limited
- community involvement or commitment may not be fully developed
- equipment, storage and/or kitchen space may be insufficient
- the anticipated participation level may not high enough to sustain this model.

If any of these is the case, other models can be considered which may meet many of the same nutritional and educational goals. Some of the models operating in some other districts around the country are briefly described below.

### **SCHOOL MEAL PROGRAMS**

***i. Establish a full Farmers Market salad bar one or two times per week.***

This model allows for a gradual phase-in of the program and a relatively low cost way of piloting it and determining the demand. The frequency can be increased if appropriate. On the days it is offered, the salad bar could either be available in addition to the hot meal, or instead of the hot meal.

***ii. Use local produce (e.g., lettuce, carrots, cole slaw, fresh fruit) in place of the existing hot lunch fruit and vegetable options.***

A much more modest endeavor, this model may look identical in some ways to the conventional meal, including the use of plastic containers and bagged carrots. It differs in that it prepares and uses local produce as a part of the hot lunch offering. As with the other models, it can provide the benefits of using fresher, healthier produce; supporting local agriculture; modeling the behavior of eating "in season" which teaches students about their environment and food sources; and, providing educational opportunities through linked lessons in the classroom, school garden, and on local farms.

***iii. Initiate a salad bar using some produce obtained from a broker.***

Many schools around the country offer a lunchtime salad bar that integrates locally sourced and seasonal produce with produce obtained from a broker. This model has the advantage of providing healthy choices to students even in seasons or in regions where fresh produce may not be available. Indeed, in some regions in the U.S., this is the only possibility, as year round locally sourced produce is difficult to come by. Combining fresh and seasonal produce with conventionally sourced produce can also lower food and labor costs because conventional produce can be purchased through the USDA commodity program ready to serve. For example, it might save on costs to purchase the labor-intensive and highly consumed foods such as lettuce from a wholesale distributor, particularly during the off season.

The drawbacks to this model are that the food may be less fresh and lower quality with a shorter shelf life, which can lead to more waste. Also, many people working in school cafeterias have remarked that students know when the produce is not

fresh and they lose interest very quickly; therefore participation sometimes drops with this model.

**iv. *As an adjunct to any of the above, it is possible to serve a featured in-season fruit or vegetable and coordinate it with lessons in the classroom or garden.***

A very good approach for new projects is to start with one item—apples are quite popular—just to test out the system. A featured “fruit or vegetable of the week” on the lunch menu can be linked with nutrition, science, art, and garden lessons. Teachers can be supplied with suggested short lesson plans and activities that complement an item that students have access to on the lunch line. An excellent resource for cooking in the classroom using seasonal produce is “Kids Cook,” listed in the Resources section.

**v. *Focus on breakfast or snack programs of the Nutrition Services Department.***

Perhaps a less complicated place to start shifting purchasing practices, districts with breakfast and snack programs may consider introducing local produce into these elements of the food service program before tackling the more challenging lunch program.

### **OTHER FARM-TO-SCHOOL PROGRAMS**

In addition to focusing on the National School Lunch Program, there are other ways to improve student nutrition and teach about local food systems. Some ideas include:

- Work with teachers and local farmers to establish farm field trips
- Arrange farmer visits to classrooms
- Establish a regular school-based Farmers Market with local farmers, gardeners, community gardens, parents, garden clubs, etc.
- Purchase a Community Supported Agriculture (CSA) subscription for a classroom, which ensures the weekly delivery of local produce for use in cooking lessons and other activities
- Work with Nutrition Services to incorporate school garden produce into the school meal.

### **DEVELOP A FOOD POLICY**

The use of a school district food policy to guide administrative choices and program operations can be very helpful in furthering the institutionalization of Farm-to-School goals. Food policy statements can include broad-ranging goals related to hunger, nutrition, and meal costs, as well as guidelines for food procurement sources, nutritional standards, curricular linkages related to food, waste reduction, support for sustainable agricultural practices, nutrition education for staff, and ongoing programmatic elements and advisory structures.

Food policies can either precede the implementation of programs such as the Farmers Market Salad Bar, or can evolve as part of that effort. Food policy development

benefits from the input of a range of stakeholders, including district administrators, teachers, students, parents, and farmers, and must receive the support of the district's Board of Education.

In conjunction with the development of a district-wide food policy, local Farm-to-School groups often establish Student Nutrition Advisory Councils (SNACs) which help develop policies and continue to work on implementation of the food policy once it is established.

One of the leaders in California in the area of school food policy is the Berkeley Unified School District, which adopted a comprehensive district-wide policy in 1999, and is working on its implementation. Contact information for this effort is included in the Resources section, as are other resources for school food policy development.

## **CONCLUSION**

Launching a farm-to-school salad bar program is a large and complex undertaking. The work involved must not be underestimated. At the same time, the vision must remain uppermost, for the rewards are great when children eagerly line up for fresh fruit and vegetables and return for more day after day. When a "Crunch Lunch" becomes a part of the children's daily experience and school identity, the long term payoff is not only an increase in fresh food eaten, but a change in attitude about food and agriculture that they will carry with them into middle and high school, and, it is hoped, into adulthood.

## **FISCAL ANALYSIS MODEL**

One of the central factors informing the long-term viability of the salad bar program is its fiscal sustainability. Viability must be evaluated for both farmers and school nutrition services. In this section, we briefly discuss viability for farmers and primarily focus on viability of the salad bar from the point of view of school nutrition services. For farmers, the program is still so new that fiscal information is sketchy. Schools, on the other hand, keep close records of expenditures. A tool for determining salad bar fiscal sustainability is a profit/loss analysis, described below. Another useful tool is calculation of the "break even point." This represents the minimum number of meals required to cover expenses. This calculation is also provided below.

### **Farmer Viability**

During 2001/2002, overall participation in the school lunch program at the three Davis participating schools increased substantially. Adult participation also skyrocketed, increasing between three- and six-fold compared to before the salad bars opened. The dramatic increase in student and adult participation in the school lunch program increased the total revenue to local farmers from approximately \$4,000 for year one to almost \$15,000 for year two.

Average weekly produce purchases from local farmers increased from \$173 when one school was operating to \$674 when three schools were open. (With three schools, an additional weekly average of \$285 was purchased from produce distributors to make up for what was unavailable locally.)

An original goal of the program was to create a viable alternative direct marketing opportunity for small local farmers. However, the program has not yet proved to make a significant difference. Farmers stated that the extra income derived from the farm-to-school program was almost too insignificant to calculate. The largest percentage of total farm income coming from salad bar sales to the school district was 1.5 percent. This was reported from the smallest farm operation in the group (a four acre farm); most farmers reported one percent or less coming from this source. The larger the operation, the smaller the percentage represented by the farm-to-school sales. Revenue from the program ranged from \$275 per year to \$2,500 per year.

Nevertheless, farmers believe the program holds potential for sales direct to school districts separate from the salad bar purchases. For example, the Ventura school district once ran short of fruit and purchased from the farmer directly to make up the difference. Even though he sold to the district at about 55 percent of the price he could have gotten from his usual Bay Area market outlets, he made nearly \$600 for the one sale. If sales of this magnitude were to continue, the income for farmers could be significant.

To date, in the Davis program, inputs and costs for farmers have been low not demanding much extra time, expense or energy. This is mainly because the delivery system is convenient for farmers. However, if the entire program grows and demand from the district rises, it is not clear that this would remain as convenient. Some of the farmers selling to Davis schools have been willing to deliver to the central kitchen in Davis, since the trip to the kitchen is not out of their way. Other farmers located

further afield require a minimum order before including Davis in their regular round of deliveries. The point at which it would not be cost effective for a farmer to deliver to the school has not yet been established, and in any case, would vary from farmer to farmer. One farmer stated that for her operation, she would need a minimum order of \$150 in order to make a special delivery to a school's central kitchen. However, this represents one of the larger farming operations (co-owned by four families) and would not necessarily apply to single proprietor farms. Full evaluations of fiscal viability for farmers still need to be done.

## **Overview of School Nutrition Services Finances**

This section describes financial terms and budget categories commonly used by Student Nutrition Services Departments, with specific examples from Davis to provide context. Understanding the financial elements of a school food service operation provides a realistic basis for implementing new programs.

### **ENTERPRISE FUND**

School district Student Nutrition Services Departments operate like for-profit businesses, using "enterprise funds." This means that they must generate their revenue by producing goods and services. In contrast, most district operations are paid out of the district's general funds, which come from state funds based on attendance rates of the overall enrollment. Loans can be made to nutrition services from the general fund under certain circumstances at the discretion of the Board of Education. This most commonly occurs for capital improvements. These loans must be paid back to the general fund.

In many districts, Nutrition Services Departments operate with very little or no profit margin, and therefore have difficulty raising capital for new projects or taking financial risks. In developing innovative programs such as a Farmers Market Salad Bar, this reality must be taken into consideration.

### **CAPITAL EXPENDITURES**

Capital expenditures are expenditures for establishing, replacing or improving facilities. Capital expenditures are necessary to implement the salad bar program because specialized serving equipment is needed. Generally, capital expenses are considered one-time costs. Nevertheless, new requirements sometimes arise (such as an additional delivery truck), particularly if the program is expanding to new schools. In addition, it will be necessary to repair and replace broken, lost and old equipment over time.

Few districts can afford large capital expenditures. However, it is relatively easy to fund these items through local service organizations, community members, private foundations, and sometimes government grants. And, as mentioned above, it is sometimes possible to get a loan from the district's general fund, which must be paid back.

In Davis, we purchased salad bars, sneeze guards, serving utensils, salad dressing dispensers, and containers for serving and transportation. Rolling carts for delivery from the central preparation site to the school sites were already available. A bus cart was purchased for each school to restock during the lunch period. Some preparation equipment, such as a large salad spinner and a food processor was also needed. We also needed to purchase shelving for the large walk-in cooler. Knives, cutting boards, colanders, and other equipment may be available or may need to be purchased. The equipment cost in Davis for startup was approximately \$2,000 per school, plus an additional \$3,500 for central kitchen equipment (all three schools total). Some of the funds for this came from grants and some was donated by community organizations.

As the program expands, other capital expenditures may be required. For example, in order to open more than three schools in Davis, another cooler may be needed to accommodate the additional produce. It is also possible that a second delivery vehicle may need to be purchased or leased, and a driver hired, to deliver the salad meals. The present delivery schedule in Davis is very tight and it is already difficult for the driver to include both drop off and pick up of the salad bar equipment each day.

## **OPERATION EXPENSES**

### **Variable Costs:**

Variable costs are those that are directly proportional to the number of meals sold. All food costs, including produce, breads, protein, and milk, plus supplies such as eating utensils and recyclable trays that hold the salads are included in this expense category. Food and supplies lost to waste are also included.

### **Fixed Costs:**

Fixed costs remain constant regardless of the number of meals sold. The main fixed costs of the salad bar include food service staff (Kitchen Manager, Lunchroom Supervisors, and Kitchen Assistants); transportation (driver salary, truck maintenance, and mileage); and administrative supplies.

### **Indirect Costs:**

Included in the cost of running a Student Nutrition Services Department is a fixed-rate indirect cost that the Department must pay each year directly into the district's general fund. The rate of this indirect cost is adjusted each year at the direction of the Board of Education. It is intended to cover costs absorbed by the district, such as the Department's share of utilities, facilities maintenance, payroll services, etc. In Davis, it was approximately 6% for the 2001/2002 school year.

## **SOURCES OF OPERATION REVENUE**

### **1. Student Meal Income**

#### **National School Lunch Program Reimbursements:**

The National School Lunch Program reimbursements provide the majority of funding for most Student Nutrition Services Departments. The National School Lunch Act was signed into law in 1946 in order to improve the health of the nation's children and to ensure a market for American farmers. The Act provided permanent funding for all children. Each year, the USDA, which administers the National School Lunch Program

at the federal level, establishes the levels of meal reimbursements and tiers them depending on economic need. Most states also provide funding in addition to the federal funds, though the amount varies from state to state. The disbursement of funds and responsibility for fiscal oversight is delegated to each state's Department of Education Nutrition Division.

Families are invited to apply for assistance in the form of free or reduced cost school meals, and eligibility is determined by household income and family size. In districts such as Davis, where the number of students eligible for free and reduced meals is less than 60%, the reimbursement rates for the school year 2001/02 in California are provided in Table 1 below. Districts with student eligibility higher than 60% receive slightly larger reimbursement rates.

**Student Charges:**

The prices for full paying and reduced fee lunches are established annually by each district's Board of Education. In the 2001/2002 school year in Davis, the price set for full paying lunches was \$1.90. Students eligible for reduced fee meals in Davis paid \$0.40 per lunch (which is the maximum allowable by law).

Increasing the price of the lunch, particularly for the full paying students, is one way to generate additional revenue. However, the concern is that this sometimes results in decreased participation, which brings the total revenue down.

**Local Subsidy:**

In some districts, local subsidies are available in addition to the federal and state contributions, on a per meal basis. This is not currently the case in Davis.

**Table 1: Summary of Income Sources for Student Meals in Davis**

Type of lunch	Reimbursed to school by USDA (per meal)	Reimbursed to school by State of CA (per meal)	Total amount received in reimbursements (per meal)	Amount paid by students in Davis	Total revenue per meal
Free	\$2.09	\$0.1317	\$2.22	0	\$2.22
Reduced fee	\$1.69	\$0.1317	\$1.82	\$0.40	\$2.22
Full paying	\$0.20	none	\$0.20	\$1.90	\$2.10

**2. À La Carte Food Sales**

Nutrition Services Departments often sell food in addition to the National School Lunches. À la carte sales can help subsidize the school lunch program because prices are not restricted. Federal and state regulations specify what items can be sold à la carte, but do not control prices.

At the elementary school level, milk is often the only item sold à la carte. By contrast, at the middle school and high school levels, the à la carte sales play a larger role and can provide more revenue. For schools with open campuses where students can leave

to purchase food off-site, the competition from neighboring fast food restaurants and convenience stores is significant. This can apply additional pressures to the school to offer “fast foods” to attract student customers.

### **3. Adult Meal Sales**

The fees from adult meals are a source of income for Student Nutrition Services, and the rates are established by each Board of Education. Typically, adult meal prices are higher than the full price for a student. In Davis during the school year 2001/2002, the cost was \$2.25 for the hot lunch and \$3.50 for the salad bar.

### **4. Commodity Foods**

The commodity foods program is operated by the USDA, which supplies surplus agricultural products at very low prices to school districts to subsidize their food costs. Each year, Nutrition Services directors order the commodities they want for the entire year, to be delivered directly to the district or to first be processed into prepackaged entrées and then delivered. Each school district in the country was entitled to a maximum value of \$0.15 per meal in commodity foodstuffs for the school year 2001/02. The cost of this food to the district is minimal — the cost of shipping, and any processing as desired by the district. Although not a source of cash income, well-managed use of the commodities program can significantly decrease food costs. Budgets often show the commodity value on the income side.

### **5. Grant Income**

It is not uncommon for school districts to apply for grant funding for many educational programs, usually from federal, state and local government agencies. In the case of the Davis salad bar project, funding for the first 18 months was received from the USDA and California Department of Education (as described above in Phase I), as well as from private foundations and local businesses, service clubs, organizations, and individuals (e.g., the Davis Farmers Market, Chez Panisse Foundation, Center for Ecoliteracy, Rotary, Kiwanis and Soroptimist Clubs, etc.).

### **6. Volunteer In-Kind Labor**

To launch the salad bar program, volunteer labor, primarily from parents, contributed to the labor costs during the first several weeks. In some cases, this volunteerism continued beyond the startup phase. This source of support, which decreases labor costs significantly, does not get expressed in the fiscal models described below, but it is an important aspect affecting the financial viability of the program during its pilot stage.

## **Profit/Loss Analysis**

A profit/loss analysis produces a financial picture of the operating income and expenses for a given year and calculates whether a profit or a loss is incurred. Student Nutrition Services Departments routinely produce this report for their entire operation, and it can also be produced for a single program such as the salad bar.

Although various districts may have modifications on the contents of a profit/loss statement, the most common categories are included below in the sample table from Davis.

**Table 2: Sample Profit/Loss Analysis for Davis Salad Bar Program**

	<b>Year One (2000/2001)</b>	<b>Year Two (2001/2002)</b>
<b>REVENUE</b>		
Student salad bar sales	\$20,423	\$103,112
Adult salad bar sales	\$436	\$6,965
Grant funds applied to salaries	\$22,075	\$37,014
Grant funds applied to equipment (including truck lease)	\$2,000	\$7,100
Grant funds applied to training, outreach, & administrative supplies	0	\$5,300
<b>TOTAL REVENUE</b>	<b>\$44,934</b>	<b>\$159,491</b>
<b>EXPENSES</b>		
Food and supplies	\$8,765	\$46,936
Salaries + benefits @ 30% (DJUSD Kitchen Manager, Lunchroom Supervisors, Kitchen Preparation & Clean-up)	\$10,166	\$59,540
Consultant to DJUSD		\$2,400
Prorated labor (for meal check-in @ .05/meal)		\$2,700
Salad bar equipment	\$2,000	\$4,900
Supplies, travel	\$1,142	\$3,167
Truck lease		\$2,287
Administrative supplies (costed @ .03/meal)	\$313	\$1,435
Indirect costs, (not including equipment @ 6%)	\$1,223	\$7,108
<b>TOTAL EXPENSES</b>	<b>\$23,609</b>	<b>\$130,473</b>
<b>PROFIT (LOSS)</b>	<b>\$21,325</b>	<b>\$29,018</b>

Table 2 shows a profit during both Years One and Two, the result of the grant funds covering the extra expenses and the income resulting from high participation rates.

It should be noted that this analysis does not take the entire school food budget into account. In this model, the salad bar was separate from the hot lunch entrée, and calculations for the salad bar could be separated out from the rest of the school food budget. However, the entire school food budget needs to be analyzed to determine a profit and loss statement for the whole school food system. In other words, all revenue and expenses (e.g., ala carte sales, labor) will need to be considered when making the decision about how to incorporate a salad bar program. It is only in the

context of the entire school food budget that the viability of one component such as a salad bar can be considered.

### **Calculating the Break Even Point**

The Break Even Point (BEP) is a figure which indicates **the minimum number of school lunches that must be sold per day to cover costs**. It can be calculated for the entire district, or for individual school sites, for specific programs such as the salad bar program, or even for phases of a program, for example, the start-up phase of a salad bar program. In this way, the district can track the financial trends related to the salad bar.

This analysis uses the following formula:

$$\text{BEP (meals/day)} = \frac{\text{Fixed Costs (\$/day)}^1}{\text{Average Revenue (\$/meal)}^2 - \text{Variable Costs (\$/meal)}^3}$$

<sup>1</sup> Labor costs, transportation, administrative supplies

<sup>2</sup> Based on calculations of free, reduced, full paying lunch revenue

<sup>3</sup> Food & disposable supplies such as trays and utensils

Calculating the BEP for the salad bar project is valuable because it provides a measurable goal against which to monitor fiscal performance. If the number of salad bar lunches sold is consistently lower than the BEP (the minimum number needed to be sold to cover costs), the project will need to find ways to increase revenue either by increasing participation, increasing the meal price for full paying students/adults, or decreasing costs.

The most effective way to lower the BEP is to decrease the labor costs. Labor costs are an indicator of efficiency, and if more meals can be prepared with less labor, a lower BEP results. Alternatively, a district could decide to accept a program that is not breaking even, and could subsidize the financial loss through other revenue sources such as the sales of à la carte meals or adult meals, or ongoing fundraising and community contributions.

In Davis, BEPs were calculated for each of the three phases of the salad bar implementation — startup, introductory and maintenance phases. The labor costs decreased over these three phases, as systems were established and procedures became smoother, and this lowered the BEP accordingly.

What follows is a sample BEP calculation from Davis.

#### **FIXED COST CALCULATION**

The fixed costs (which stay the same regardless of the number of meals served) include:

- labor (salaries, payroll expenses and benefits for the Salad Bar Kitchen Manager, kitchen assistants, and lunchroom supervisors),
- transportation (driver salary, truck maintenance, mileage)
- indirect costs (a fixed percentage of these costs).

Labor is included in fixed costs for the purposes of this analysis, although in the event of significantly low meals sales, labor can be decreased somewhat.

Table 3 provides an example of specific data for the labor calculations and administrative costs used in Davis; an additional 6% of the total was added to cover indirect costs.

**Table 3: Fixed Cost Calculation**

<b>Expense Category</b>	<b>Calculation Method</b>	<b>Total Daily Cost</b>
Kitchen Manager	1.3 hours/day at a salary of \$20.08/hour, including benefits	\$26.10
Kitchen Assistant/Lunch Supervisor	7 hours/day at a salary of \$14.64/hour, including benefits	\$102.48
Administrative Supplies	Average based on pro-rated expense for the district	\$2.66
Transport	Driver time plus mileage to schools	\$12.70
<b>TOTAL FIXED COSTS</b>		<b>\$143.94</b>

Note: Salary levels used throughout these calculations are extremely conservative and assume the highest level on the pay scale plus 30% in benefits and payroll costs.

**VARIABLE COST CALCULATION**

Variable costs are those that change depending on the number of meals prepared. Most often, this includes only food and supplies (such as trays, utensils, containers), plus their associated indirect cost percentage. In Davis, food and supplies costs were calculated at 85¢ per meal. This was determined by monitoring the costs of all food and supplies used for the salad bar over a three-month period and calculating an average based on the total meals served during that time.

**AVERAGE DAILY REVENUE CALCULATION**

Average daily revenue per meal can be calculated by figuring the revenue generated by each type of meal sale and weighting these figures according to the percentages of students receiving them (free/reduced/full fee lunches) in the school or district. Using district averages for Davis as an example:

**Table 4: Average Daily Revenue per Meal**

Meal	Revenue per meal (federal, state, cash income)	Percent of students in the district receiving this type of meal	Weighted amount received for this meal type (Col 1 x Col 2)
Free	\$2.22	26%	.58
Reduced	\$2.22	7%	.16
Full fee	\$2.10	67%	1.41
<b>(Weighted) average daily revenue/meal =</b>			<b>\$2.15</b>

Using the sample data above, the BEP (number of meals needed to be served in order to break even) for the Davis Salad Bar Project was calculated as follows:

$$\begin{aligned} \text{BEP (meals/day)} &= \frac{\text{Fixed Costs (\$/day)}}{\text{Average Revenue (\$/meal) — Variable Costs (\$/meal)}} \\ &= \frac{\$143.94/\text{day}}{\$2.15/\text{meal} — \$0.85/\text{meal}} = 111 \text{ meals/day} \end{aligned}$$

This sample calculation shows that a minimum of 111 meals needed to be served each day in order to cover fixed and variable expenses.

### **Conclusion**

The profit/loss and break even point calculations are only two of the tools food service managers and others might use to analyze the fiscal feasibility of a farm-to-school program. They provide information for making decisions about where to redirect resources or where additional resources may be necessary. In the Davis example, as for many others, the additional labor needed for the salad bars is a key factor in increasing expenses.

We also found, however, that additional income could be generated in several ways. The primary way is through promoting the program and thereby increasing student and adult participation. Raising funds from outside sources (grants, donations, etc.) is the other major source of income. Over time, our goal is to increase and maintain sales and high participation rates such that they will cover the increase in labor. Fundraising for the program can then be reduced to a minimal level which can be easily maintained.

Farm-to-school projects like the one in Davis has provided many positive benefits for school children in the Davis Joint Unified School District:

- More opportunities to choose farm-fresh fruits and vegetables in school lunches;
- Opportunities to learn about and taste new, local, fresh foods;
- Increased understanding about how eating fresh, local foods contribute to health, good nutrition and local agriculture;
- Increased understanding about how and where food grows;
- Opportunities to produce food in school gardens;
- Opportunities to recycle waste and integrate it with garden compost.

For local farmers, it has:

- Assisted them in initiating or expanding institutional sales;
- Provided an opportunity to educate school children and community members about local farming.

Putting a project like this in place has not been easy. The complexities of managing new food distribution and serving systems while maintaining financial solvency has been a challenge. However, we continue to believe that the benefits outweigh the

difficulties and we will continue to seek creative strategies to further develop and expand the program where it is supported.

## **Resources for Farm-to-School and Food Policy**

CA Project LEAN: Victoria Berends, "Influencing Policymakers to Enact School-Based Policies that Support Healthy Eating." Contact information: Victoria Berends, Marketing Manager, CA Project LEAN. P.O. Box 942732, MS-675, Sacramento, CA, 94234-7320. Phone: (916) 445.3500. Email: [vberends@dhs.ca.gov](mailto:vberends@dhs.ca.gov) or for Project LEAN: [www.CaProjectLean.org](http://www.CaProjectLean.org)

Community Food Security Coalition • [www.foodsecurity.org](http://www.foodsecurity.org)  
School food "starter kit"  
Consultation on grantwriting  
Various publications  
— "Healthy Farms, Healthy Kids"  
— "Getting Food on the Table: An Action Guide to Local Food Policy"

Community Alliance with Family Farmers • [www.caff.org](http://www.caff.org) • (530) 756-8518  
Info on farm tours, community supported agriculture.

Toronto Food Policy Council • [www.city.toronto.on.ca/health/tfpc/index.html](http://www.city.toronto.on.ca/health/tfpc/index.html)  
The innovators and forerunners in community food policy development.

Sustainable Agriculture Research and Education Program • [www.sarep.ucdavis.edu](http://www.sarep.ucdavis.edu)  
Small grants program for projects supporting sustainable agriculture and food systems.  
In Fall of 2002, will publish a case study and handbook on the Davis Joint Unified School District Farmers Market Salad Bar Program.

Occidental Arts and Ecology Center • [www.oaec.org](http://www.oaec.org)  
Renata Brillinger, Food Systems Program Director • (707) 874-1557 x 222  
Tina Poles, School Garden Director • (707) 874-1557 x 202  
*Food Matters in Sonoma County* can be contacted through OAEC.

Berkeley Food Systems Project [www.foodsystems.org](http://www.foodsystems.org) or [www.ecoliteracy.org](http://www.ecoliteracy.org)  
Started the Berkeley Salad Bar project.

Marin Environmental Education Committee • [ismith@malt.org](mailto:ismith@malt.org) • (415) 663-1338  
Launched the Marin Food System's Project, including the Lagunitas salad bar.

Davis Educational Foundation • [shredmama@aol.com](mailto:shredmama@aol.com)  
Started the Davis Farmers Market Salad Bar project.

Santa Monica Unified School District  
[www.eupi.oxy.edu/projects/cfj/resources/index/html](http://www.eupi.oxy.edu/projects/cfj/resources/index/html)  
Started a local salad bar project, now district-wide.

Berkeley Food Policy Council • [www.berkeleyfood.org](http://www.berkeleyfood.org)  
Developed the City of Berkeley Food Policy Council.

State Education & Environment Roundtable • [www.seer.org](http://www.seer.org)  
Published a study in March 2000 demonstrating improved test scores in students exposed to environmental education.

## **Appendices**

**Appendix A: Readiness Assessment**

**Appendix B: Equipment List**

**Appendix C: Suggested Layout for Salad Bar**

**Appendix D: Job Description for Farm-to-School Project Coordinator**

**Appendix E: Guideline for Daily Food Quantities Ordered**

**Appendix F: Weekly Produce Demand Lists from Three Schools**

**Appendix G: Sample Menus**

**Appendix H: DJUSD Salad Bar Production Record**

**Appendix I: School Lunch Participation Data**

## **Farm-to-School/School District Readiness Assessment Checklist**

The following are considerations in the determination of suitability for a school district's readiness for a Farm-to-School food service-based program. This short checklist is intended for use by individuals or groups (parents, teachers, community members, farmers, and others) interested in initiating a farm-to-school program in their school district, and who are in the early stages of researching the potential and are beginning to build interest and support.

### **History and Context of the Food Services Department**

Understanding the past programs and trends in the District can prevent the repetition of mistakes, and can build an understanding of the institutional challenges that administrators face. It is also important to understand the decision-making structure of the District.

- Does the district have a history of incorporating local food into its meal program?
- Does the district have any past experience with salad bar meals? If so, what happened?
- Have any other similar community efforts been initiated? If so, what happened?
- What are the challenges faced by the Food Services and Business Services Departments?
- What improvements or program modifications are being implemented or considered by the Food Services Director? What problems or shortcomings are these intended to address?
- Over what decisions does the Food Services Director have independent authority? What decisions require approval from other district administrators or the Board of Trustees?

### **School Community Context**

Farm-to-school affects all constituencies within the school community, and success will depend upon the active involvement and support of each of them.

- Is there philosophical, practical and demonstrated support for farm-to-school programs from Board of Trustees and the Superintendent?
- Is there practical support from parents, teachers, principals - a willingness to implement a new program?
- Are there school gardens, cooking classes, nutrition education? Are any of these incorporated into district policy?
- In general, for this program to work, there needs to be dialogue between involved members of the community and the district. What is the level of your district's receptivity to public input into educational and other district operations?
- Start-up or pilot programs such as these usually require outside grant funding, at least in the early stages. Are there other precedents for community/administration collaborations which involve grant writing and initiating new programs within the district?
- What are potential local collaborators and resources that can be brought to bear?

### **Financial**

One of the most significant factors in the operation of the Food Services Department is economic constraints. Districts will generally be less inclined to implement new programs if they have budget deficits, or if they are not in good standing with the National School Lunch Program, which administers student meal reimbursements and audits for compliance.

- What is the financial standing of the Food Services Department? Is it running a deficit or a surplus budget?
- What is the standing of the Department with the National School Lunch Program and its Coordinated Review Effort (a regular audit procedure administered by each state's Department of Education)?
- Revenue generated by free meals versus full-paying meals can vary, and affects the Food Service budget. What are the reimbursement patterns (free/reduced/full paying), and the meal rates?
- Most districts maintain a target percentage for food expenses and labor costs as a marker for fiscal performance, and these can be used to consider the financial viability of new farm-to-school programs. What is the district's target for labor and food costs?
- Are there other income sources for the Food Services Department (e.g., lunch sales to adult in the school, grants, etc.)?
- What are the grant funding and local fundraising opportunities available to the district and school community? Does the district have a grant writer/seeker on staff who could put his/her resources to a project like this?

## **Logistical**

The operations of Food Services varies in each district, and must be understood in order to work towards the integration of new systems. In contrast to other food service industries, school districts have the logistical challenges of preparing, delivering and serving many thousands of meals each day in disparate locations to a wide age range of children, and all within an approximate one-hour window.

- What food services are offered? (lunch, breakfast, snack, nutrition education, etc.)
- Is there a central kitchen or decentralized preparation?
- What is the status of kitchen facilities? Is there any equipment such as: several deep sinks for washing produce; sufficient refrigerator space; surfaces for chopping produce.
- How is food delivered to the sites? Are there sufficient resources? Will the new program create the need for more delivery capacity? If so, is it available?
- What is the lunch schedule at the school sites? Can the children's lunch schedule be altered to accommodate the long lines that probably will arise during the early days of a new meal program?
- Is there space at the schools to accommodate new equipment or food storage?

## **Labor**

Implementation of new or altered Food Service programs impacts labor, and research on the current status is essential.

- What is the status of relationships with the local food service union and union representatives?
- According to the Food Services Director, are the Food Service Department's day-to-day personnel resources adequate to meet the current demands of the Department? Is there adequate staffing in the Food Services office (secretarial work, a permanent Director, managers at various levels, accounting services, etc.) Are there enough kitchen staff preparing food? Are there enough staff at the district's school sites to monitor students, collect money, complete paperwork, etc.? Are there enough delivery personnel? Are there enough substitute workers for each of these positions?
- Is there a nutrition education specialist in any department in the district? If so, they can help make educational linkages between the meal offerings and the curriculum.
- If paid labor is not available for any of the above, are there adequate volunteers to fulfill these functions? Is there someone to coordinate the volunteers? Are there restrictions about volunteers working in the district's kitchens? Are there restrictions about volunteers helping in the school lunchrooms?

## **Equipment List**

The equipment in use for food preparation for three sites includes:

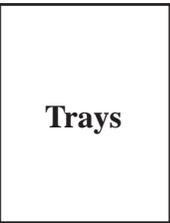
- Four cutting boards
- Knives
- Five gallon salad spinner
- Industrial food processor (e.g., Robotcoup) for shredding and chopping
- Apple corer for cutting apples, Asian pears, citrus, kiwis, etc.
- Industrial steamer (for boiled eggs, steamed vegetables, potatoes, beets, etc.)
- Metal bowls and colanders
- 25 pound scale for pre-weighing food for each meal

The serving equipment for one school site is:

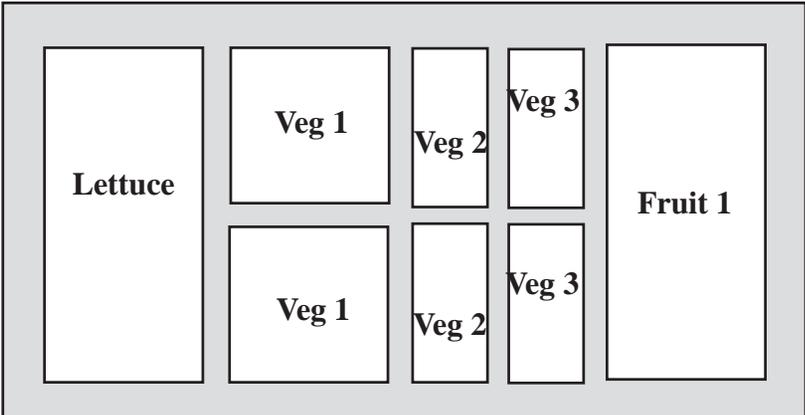
- One salad bar (or two to launch, then decrease to one over time)
- Two tray rails per bar
- Sneeze guard
- Small table to place trays at head of bar (a student desk size)
- Large 6 food table for condiments, toppings, dressings, bread offerings
- Bus cart for restocking
- 25 pound scale for weighing food after serving
- Serving containers (all 6 inches deep):
  - 4 full size
  - 16 third size
  - 6 half size
- Serving utensils (12 spoons, 4 ladles, 8 tongs)
- Four squeeze bottles for salad dressing
- One ice pack the length of the bar
- Plexiglass serving containers (with hinged lids) for croutons, bread and condiments
- Carpet sweeper, broom or vacuum for cleanup

**SUGGESTED LAYOUT FOR STARTUP PHASE OF SALAD BAR**

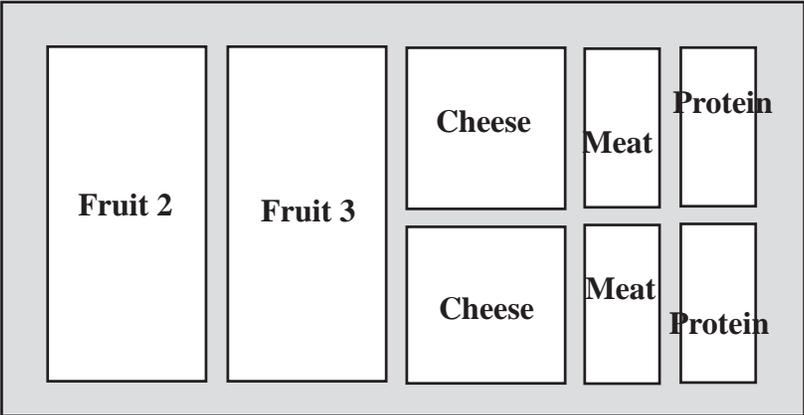
student line



**Bar One**



**Bar Two**



student line

**Condiment Table**  
 dressings  
 croutons  
 whole wheat rolls  
 breadsticks  
 crackers  
 One of:  
 raisins, sunflower seeds, prunes, dates, string cheese, chips, etc.

September 11, 2000

POSITION DESCRIPTION  
**Farm-to-School Project Coordinator**  
**Extension Associate I, Exempt**  
Posted: September 20, 2000

Supervisor: Jennifer Wilkins, Division of Nutritional Sciences

Location: Division of Nutritional Sciences, Cornell University, Ithaca, NY

I. Summary Statement of the Purpose and Responsibilities.

*In a position reporting to the Project Director, and working as a member of the Farm-to-School Project Team, this professional assists in the planning, delivery, and evaluation of at least four pilot "farm-to-school" projects in selected New York State public school districts. This professional will be responsible for planning a state-level workshop, coordinating and managing communications with a statewide team, and organizing and facilitating planning meetings throughout the two year life of the project.*

II. Specific Job Functions and Responsibilities.

***Develop relationships on behalf of the Project with a network of school food service directors, farmers, CAP agency representatives, nutrition educators, chefs, and representatives from NYS Department of Agriculture and Markets, NYS Task Force on Food, Farm and Nutrition and others. Identify "farm-to-school" project pilot sites. Serve as primary contact with representatives from each of the sites. Maintain a clearinghouse of cropping schedules, farm product availability, NYS and federal laws and regulations affecting the use of NYS agricultural products in public schools, colleges and universities. Develop resource materials to support extension programming on farm-to-school efforts. Establish a network of expert resources on and off campus to provide input into these materials.***

A. Program Development.

1. Assist in identifying pilot sites for farm-to-school projects, in coordination with Project Team, school food service directors, Cornell Cooperative Extension (CCE) educators, farmers, CAP agency representatives, nutrition educators, chefs, and representatives from NYS Department of Agriculture and Markets, NYS Task Force on Food, Farm and Nutrition and others.
2. Set up and maintain a communications network with Project Team, pilot site contacts, and other relevant community and state stakeholders.
3. Develop a systematic directory of farmers, crops, harvest schedules in a format accessible to food service directors.

4. Work with pilot school contacts to develop system to coordinate ordering, delivery, preparation and display at pilot schools.
5. Possibly assist in the preparation of grant proposals and other project funding efforts.
6. Serve as one of the primary contacts for persons seeking information regarding resources related to farm-to-school projects in New York.

B. Program Implementation.

1. Organize farm-to-school meetings.
2. Assist in developing presentations and supporting materials for educational events (conferences, workshops, and professional development experiences).
3. Develop educational materials on a variety of issues related to local agriculture, seasonal menu planning, recipe alteration.
4. Participate in educational events (conferences, workshops, public issues education event, etc.) as appropriate.
5. Develop reports and impact statements for extension programs and projects.

C. Program Evaluation.

1. With project leadership within the collaborating institutions, develop evaluation strategy, including indicators of successful farm-to-school endeavors for farm sector, institutional food service, youth health, and community.

D. Administrative Support.

1. Maintain inventories of research publications, websites, data bases and other sources of information on farm-to-school, farm-to-college.
2. Monitor purchases and accounts.
3. Supervise work-study students as necessary.

E. Professional Development.

1. Participate in orientation programs.
2. Attend selected conferences as needed in relation to program responsibilities.
3. Be involved in professional organizations as appropriate and as they relate to primary job responsibilities.

III. Supervision.

A. Received.

Supervised by Jennifer Wilkins, Division of Nutritional Sciences.

B. Provided.

Supervises work-study students as required.

IV. Administrative and Program Relationships.

A. Internal.

Work cooperatively with Cornell Cooperative Extension educators and relevant Cornell University faculty and staff to develop and support and farm-to-school programs.

B. External.

Develop and maintain effective working relationships with relevant community organizations throughout New York State, groups, university researchers, and policy-makers statewide and nationally.

V. Key Knowledge, Skills and Abilities Required Performing the Duties of this position.

A. Basic knowledge of and interest in local food systems. Knowledge of school meals programs and/or administrative dietetics desirable.

B. Strong verbal, written, and telephone communication skills.

C. Demonstrated ability to establish effective and productive working relationships with co-workers and individuals/groups with diverse interests and perspectives.

D. Demonstrated ability to work effectively in team settings, as both a leader and team member.

E. Demonstrated ability to work effectively without day to day supervision.

F. Excellent skills in the use of computer technology for word processing and electronic communication.

VI. Minimum Education.

A. Required.

MS degree in an agriculture, nutrition, communications, or related field. Extensive experience with group facilitation.

VII. Experience

A. Required

2 years of work experience in a position contributing to one or more of the following: nutrition, dietetics, rural sociology, food systems, community development.

VIII. Special Requirements

A. Must possess a current valid driver's license or have access to transportation adequate to meet the requirements of this position.

## **Guideline for Daily Food Quantities Ordered**

These quantities are based on limited experience in only one community, and are meant to serve as guidelines only. Ideally, each district would develop its own guidelines, as informed by the eating habits of its students.

<b>Food Item</b>	<b>Quantity per day (for 200 elementary students, one school)</b>
Apples	20 lbs.
Asian pears	25 lbs.
Beans - Garbanzo and/or Kidney	One #40 can
Beets	5 lbs.
Blood oranges	10 lbs.
Bread sticks or rolls	130
Broccoli	5 lbs.
Carrot slices	5 lbs.
Cauliflower	3 lbs.
Celery sticks	2 lbs.
Cheese	5 lbs.
Cherry tomatoes	8 pint baskets
Cottage cheese	4 quarts
Crackers/cookies	100
Cucumbers	5 lbs.
Eggs	7 dozen
Grapefruit	10 lbs.
Grapes	15 lbs.
Green beans (lightly steamed)	3 lbs.
Kiwis	20 lbs.
Lettuce	16 heads or 10-12 lbs.
Mandarins	12 lbs.
Oranges	25 lbs.
Peas (sugar peas in shells)	3 lbs.
Peppers	3 lbs.
Potato salad	8 lbs.
Radishes	2 lbs.
Spinach	2 lbs.
Strawberries	2.5 flats
Tuna	3 cans
Turkey (chopped)	10 lbs.
Watermelon	12 lbs.
Yogurt	8 quarts

## **Sample Menus**

### **Fall Menu**

Lettuce mix  
Cucumbers  
Peppers (mixed red and green)  
Broccoli  
Cherry tomatoes  
Apples (whole)  
Grapes  
Mandarins (whole)  
Tuna  
Cheese (shredded)  
Eggs (boiled and chopped)  
Breadsticks  
Crackers

### **Winter Menu**

Lettuce mix  
Spinach  
Carrots  
Beets (steamed, sliced)  
Celery  
Kiwis  
Oranges  
Asian pears  
Turkey bologna (chopped)  
String cheese  
Yogurt  
Granola  
Rolls  
Crackers

### **Spring Menu**

Lettuce mix  
Spinach  
Carrots  
Sugar peas  
Strawberries  
Apricots  
Oranges  
Turkey ham (chopped)  
Cheese (shredded)  
Beans (mixed kidney and garbanzo)  
Focaccia  
Crackers

**DJUSD STUDENT NUTRITION  
SERVICES  
Salad Bar Production  
Record**

School: Pioneer

Date:

Prepared

by:

Total student meals =

# Adults =

Item and Unit	Servings/ Unit	Start Amount	Ending Amount	Amount Served (lbs)	Number Servings
<b>MEAT/MEAT ALTERNATE</b>	<b>(1 SRVG = 2 oz)</b>				
Beans - Garbanzo (#10 can)	7.2/lb ; 47.7/can				
Beans - Kidney (#10 can)	6.2/lb ; 41.4/can				
Beans - Refried (#10 can)	7.2/lb ; 51.5/can				
Cheese, Am, Ched, Moz (pound)	8				
Cottage Cheese (pound)	8				
Eggs, fresh, whole (pound)	9				
String cheese (1 oz pkg.)	1				
Sunflower seeds (pound)	16				
Tuna, water pack (66.5 oz can)	8/lb ; 25.6/can				
Turkey ham , bologna (pound)	5.6				
Yogurt (pound)	2				
<b>TOTAL SRVG-2 OZ. M/MA</b>					
<b>GRAIN/BREAD</b>	<b>1 SRVG</b>				
Croutons (pound)	20				
Bread stick soft (1.25 oz)	1				
Corn chips (Ind. Pkg. 1 oz)	1				
Crackers (Ind. Pkg. 0.9 oz)	1				
Dinner rolls, wheat (1 oz)	1				
<b>TOTAL 1-SRVG G/B</b>					
<b>FRUIT/VEGETABLE</b>	<b>(1 SRVG =1/4 CUP)</b>				
Apples (pound)	8.4				
Apricots (pound)	11.9				
Asian pears (pound)	7.9				
Beets, fresh, cooked,	7.7				

sliced (lb)					
Broccoli (pound)	9.8				
Cabbage, shredded (pound)	26.4				
Carrots, fresh, sliced (pound)	10.3				
Cauliflower (pound)	12.2				
Celery (pound)	12.3				
Grapes, w/seeds (pound)	10.1				
Green beans, fresh, cooked (lb)	11.1				
Kiwis (pound)	6				
Lettuce (pound)	20.8				
Oranges (pound)	7.25				
Peppers	14.7				
Potato salad (pound)	8.9				
Radishes (pound)	15.3				
Raisins, Ind. Pkg. (1.3 oz)	1				
Spinach (pound)	30.7				
Tangerines (pound)	7.25				
Tomatoes, cherry (pound)	11.8				
<b>TOTAL SRVG 1/4-C F/V</b>					

<b>SCHOOL LUNCH PARTICIPATION DATA</b>							
<b>Table 5: Comparison Before &amp; After Salad Bar Introduction</b>							
Note: shaded columns are post-salad bar introduction							
	<b>Sept 2000</b>	<b>April 2001</b>	<b>May 2001</b>	<b>Sept 2001</b>	<b>Mar 2002</b>	<b>April 2002</b>	<b>May 2002</b>
<b>Average daily student participation in lunch meals (% of total student enrollment)</b>							
<b>Pioneer Elementary Total lunches (average)</b>	221 (28%)	298 (37%)	287 (36%)	262 (36%)	265 (36%)	263 (36%)	202 (28%)
<b># Salad bar / # Hot lunch</b>		191 / 107	172 / 115	107 / 155	93 / 172	99 / 164	105 / 97
<b>% Salad bar / % Hot lunch</b>		(64% / 36%)	(60% / 40%)	(41% / 59%)	(35% / 65%)	(38% / 62%)	(52% / 48%)
<b>César Chávez Elementary Total lunches (average)</b>	199 (32%)	178 (28%)	167 (27%)	152 (27%)	253 (45%)	234 (42%)	246 (44%)
<b># Salad bar / # Hot lunch</b>					223 / 30	206 / 28	197 / 49
<b>% Salad bar / % Hot lunch</b>					(88% / 12%)	(88% / 12%)	(80% / 20%)
<b>Birch Lane Elementary Total lunches (average)</b>	207 (31%)	193 (29%)	191 (29%)	192 (27%)	295 (41%)	288 (40%)	235 (33%)
<b># Salad bar / # Hot lunch</b>					195 / 100	176 / 112	167 / 68
<b>% Salad bar / % Hot lunch</b>					(66% / 34%)	(61% / 39%)	(71% / 29%)
<b>Monthly adult participation</b>							
Pioneer Elementary	1	41	42	100	55	41	56
César Chávez Elementary	78	64	71	24	209	124	193
Birch Lane Elementary	13	29	31	55	222	165	232