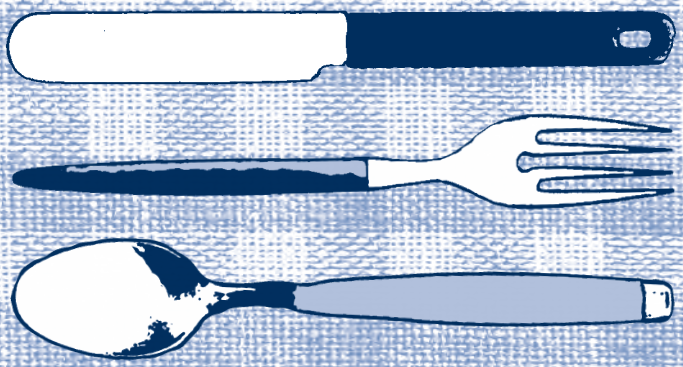
LUNCH MATTERS:

HOW TO FEED OUR CHILDREN BETTER



The Story of the Berkeley School Lunch Initiative

October 2008

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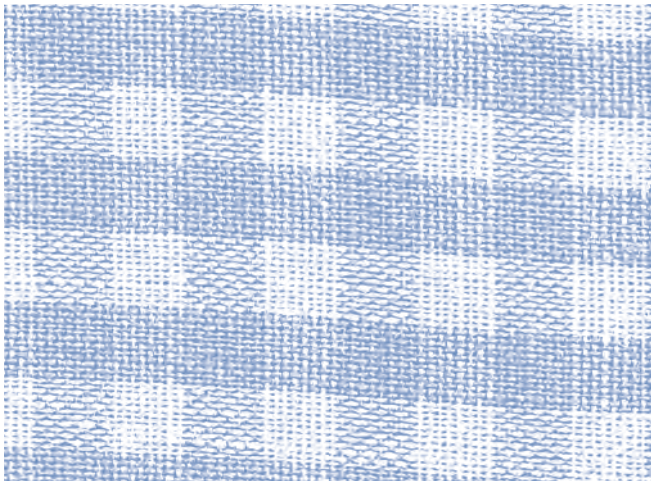

The Story of the Berkeley School Lunch Initiative

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CHEZ PANISSE FOUNDATION

Cultivating a New Generation

CONTENTS

For more than 15 years, I have worked in education reform—at a national think tank, within an urban school district, in a rural village, and at a state department of education—and in all these years, I have never met a food service director. I believe there is a reason why. In education reform circles, food is part of the business operations rather than integral to instruction. Reformers focus on the real work in schools: improving reading, writing, and mathematical instruction.

Teaching children about food does not have to be in conflict with teaching children to meet high standards. What better way to teach a child about proportionality than through a recipe? Why not teach children about ancient civilizations as you harvest grains like wheat and amaranth from the garden? The possibilities for real, engaging hands-on learning and problem solving are myriad in kitchen and garden classrooms.

It is also possible for schools to play an important role in helping to shape children's eating habits—they *must* play a role if we are to reverse the frightening trends we are seeing in terms of childhood obesity and diabetes among our youngest children. We face a new reality, and the old framework for schools is no longer sufficient. We must begin to think in terms of *eating*, reading, writing, and arithmetic.

This is a story of what we did in Berkeley to make school food better, and how we did it. Our vision was not just to upgrade the food but to lure children back into cafeterias with truly delicious, seasonal, and sustainable fresh food. We wanted to change the way they learned about food and weave food into the academic curriculum. Our goals were ambitious. We made tremendous progress in the first three years and have learned so much about what it takes to transform a public school system's food program.

I hope that this document has enough detail to help food service directors make some immediate changes to their lunch programs and encourages parents and other stakeholders to wonder whether or not they have pushed hard enough.

Carina Wong
Executive Director
Chez Panisse Foundation

INTRODUCTION

In the past three decades, the prevalence of obesity among children aged 6 to 19 in America has tripled. It is now the most commonly diagnosed childhood medical condition, and is a risk factor for many other diseases, including type 2 diabetes.

The Centers for Disease Control has stated that because of type 2 diabetes, the current generation is in danger of being the first in U.S. history to die younger than its parents did.

These health and social trends are clearly reflected in the public school lunchroom, where children are served prepackaged and reheated processed foods. These processed foods are literally making our children sick—filled with chemicals, unnecessary sugars like corn syrup, and other preservatives.

Even Berkeley, California—a city renowned for its year-round farmers' markets and access to local, fresh produce—has not avoided this health crisis and the low-quality school lunches that contribute to it. Before we began to change the lunch program, meals in the Berkeley public schools were typical of ones served across the nation. Fruit was packed in syrup, vegetables were canned or frozen, and hot food entrées, such as frozen chicken nuggets, corn dogs, grilled cheese sandwiches, and burritos, were served every week. While various efforts to change the situation have been made over the last two decades by parent groups, the schools, and the community, they have not been comprehensive in scope or application. The School Lunch Initiative was an attempt to fully take on this issue.

The School Lunch Initiative (SLI) was initiated in 2004 as a public/private partnership by the Berkeley Unified School District (BUSD), the Center for Ecoliteracy, and the Chez Panisse Foundation, with the primary purpose of changing the way children learn about food and what they eat for lunch in school every day. The assumption was that if you teach children where their food comes from and how to prepare it through hands-on experiences in kitchen and garden programs; weave concepts of sustainability, ecology, and systems thinking into the academic curriculum; and actually serve children really delicious seasonal food, they will think very differently about their food choices and the impact they have on their health and the health of the planet.

This paper describes the history and context in which the School Lunch Initiative was conceived, the changes we have made in the lunchroom, and the challenges we have faced in implementing these changes. More specifically, it covers the details of: the cost of a reinvented school lunch; issues related to procuring organic, local, and seasonal foods; and human resources and training issues involved in transitioning to a scratch-cooking model. Cost, procurement, and human resources are interrelated, but for ease of reading, we have divided them into separate chapters. At the end of each chapter, there is a summary of what we have learned, and some "food for thought" for educators, administrators, and community members looking to implement similar changes in their schools.

While this paper does not elaborate on garden and kitchen programs, or their integration into the academic curriculum, these programs are nevertheless critical components of any school lunch reform.

Early data from a three-year evaluation being conducted on our work by the Dr. Robert C. and Veronica Atkins Center for Weight and Health at UC Berkeley suggests that the more students are exposed to these programs, the more likely they are to eat fruits and vegetables both at school and at home.

We are encouraged by this finding and hope that school districts trying to reinvent their meal programs will also weave food and hands-on learning into the school day.

This is the first of a series of tools that the Chez Panisse Foundation hopes to provide for other districts and policy makers based on what we have learned. Changing school lunch must become a national priority—the health of the planet, our communities, and the next generation depends on it.

CHAPTER ONE

SCHOOL LUNCH REFORM IN BERKELEY

Context

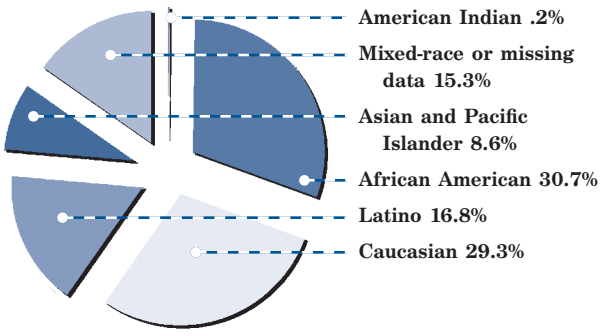
CITY OF BERKELEY

The city of Berkeley is home to 102,743 residents and is one of the vibrant communities that make up the San Francisco Bay Area. It houses the University of California, Berkeley, campus, on which the free-speech movement began in the mid-1960s. The city has a reputation for being politically progressive and for having year-round farmers' markets. The Berkeley community is 63.7 percent white, 18.7 percent Asian, 15.3 percent black or African American, 9.7 percent Hispanic or Latino, and 6.8 percent other ethnicities.[1]

BERKELEY UNIFIED SCHOOL DISTRICT

The Berkeley Unified School District's annual budget is approximately $110 million. BUSD comprises 16 schools in total—11 elementary schools, 3 middle schools, and 2 high schools. It is a small urban district that serves more than 9,000 students, 40 percent of whom are eligible for free and reduced-price lunch. Approximately 13 percent of students are identified as English Language Learners, and half of that percentile speaks Spanish at home. In terms of gender, BUSD shows a balanced student population of 49.5 percent female and 50.5 percent male. The racial composition includes about 30 percent African American, 29 percent Caucasian, 16 percent Latino, 8 percent Asian and Pacific Islander, and 15 percent mixed-race.

2007 BUSD Student Body [2]



In an effort to make each school represent the full spectrum of Berkeley families, BUSD utilizes a unique student assignment plan based on a composite diversity map, which takes into consideration parent education level, parent income level, and race and ethnicity, giving all schools in the district a diverse mix of students from different socioeconomic, cultural, and educational backgrounds. The 40 percent of students who are eligible for free and reduced-price lunch attend schools throughout the district.

NUTRITION SERVICES DEPARTMENT

The Nutrition Services Department currently provides about 8,000 student meals per day. This includes breakfast (which is now free to all students) and lunch.

*Total Meals Served**

School year	Meals served
2003–04	723,813
2004–05	786,123
2005–06	727,649
2006–07	914,000
2007–08	1,395,537
2008–09*	1,484,274

** Includes meals served at early learning centers, which are not included in participation rate charts on page 18. 2008–09 data is projected based on trends.*

Human Resources

In 2004–05, there were only three full-time year-round staff members of the BUSD Nutrition Services Department: a director, a manager, and an administrative assistant. The rest of the staff consisted of full- or part-time 10-month food service workers (12 satellite elementary school operators, 23 assistants, 5 operators at the middle and high schools, and 2 cooks). Three critical positions have been added since we began the School Lunch Initiative (an executive chef and two sous chefs—one whose job is primarily purchasing), and the district has rewritten job descriptions for a number of positions. Berkeley is considered a "self-operated" food service system, since the district does not have a major contract with a vendor to deliver food to the schools.

Infrastructure

Prior to the School Lunch Initiative, food was cooked in a small facility housed at Jefferson Elementary School; the Central Kitchen was built primarily for prep work and reheating, not for scratch cooking. It offered two convection ovens, one soup kettle, one steam table, four reach-in refrigerators/freezers, and one tilt skillet, and lacked basic equipment such as a stove, dishwasher, and walk-in food storage spaces. The district has since added an outdoor walk-in fridge, a steamer, and two slow-cook ovens.

A new cooking/dining facility at Martin Luther King Jr. Middle School will serve as the Central Kitchen for the 2008–09 school year. The Dining Commons is more than three times the size of the current Central Kitchen and has the proper refrigeration and storage space for fresh foods.

Out of 16 schools, only 6 cafeterias had stoves and only 2 had dishwashers. Many sites lacked even milk coolers and refrigerators. As part of the School Lunch Initiative, the new director of Nutrition Services purchased basic equipment for all sites. Each school is now equipped with refrigerators, rice cookers, soup wells, warming ovens, salad bars, and steam tables. The goal has been to make all of the school sites capable of receiving and storing fresh produce, providing salad bars, reheating freshly cooked meals, and serving buffet-style.

Finances

In 2005–06, the Nutrition Services budget was $2.2 million and it served 723,000 meals.[3] By 2008, the budget had increased to $3.3 million, reflecting an increase in revenue from more meals served (approximately 1.4 million meals that year).

Revenue and General Fund Contributions

School year	Revenue	General Fund Contribution
2003–04	$2,448,331	$297,890
2004–05	$2,474,947	$285,987
2005–06	$2,587,467	$500,386
2006–07	$3,077,550	$742,743
2007–08	$3,411,141	$217,723
2008–09*	$3,826,231	$219,275

** Projected revenue and budgeted general fund contributions.*

About $217,000 of the Nutrition Services budget came from the general fund in 2007–08. This was a dramatic decrease from the previous two years, when we were starting to make the most significant changes. The idea is to keep increasing the participation rates by serving better-tasting, higher-quality meals, and eventually to eliminate the reliance on the general fund. Annually, payroll and overhead costs account for approximately 60 percent of the Nutrition Services budget, and the remaining 40 percent goes toward food costs.

History

PARENT VOICES: SEEDS OF CHANGE

The fight to improve school lunch in the United States is almost two decades long. In Berkeley, the seeds of school meal reform were planted in the 1990s by active parent groups dedicated to children's health and nutrition issues. Some of the issues they identified were short lunch periods, outdated kitchen facilities and equipment, poor food quality, and the district's inadequate funding of school meals. They brought these issues to the attention of the BUSD superintendent, leading to the creation of the Superintendent's Group in the spring of 1997. Formed as an outlet and response forum for the increasing number of parents concerned about the school meal program, the group met monthly and consisted of parents, the school board president, and the Nutrition Services director.

Meanwhile, parents at Oxford Elementary School were implementing a breakfast program for students, which involved serving bagels to students once a week. They also implemented "Fresh Food Fridays," during which they served fresh organic vegetarian soup, salad, and bread. The parent volunteers negotiated with teachers and the Central Kitchen cook, developed the menus and devised the recipes, helped to cook and transport the food, and set up and cleaned up the cafeteria. Besides soup and salad there were experiments with a baked potato bar and other efforts. The programs eventually ended because the superintendent was concerned about them not being applied uniformly across the district. While short-lived, the programs convinced the district that children would eat good food when it was offered to them, and they set the stage for a strong community-led movement advocating for school food reform.

THE FORMATION OF THE BUSD FOOD POLICY

In 1999, the Berkeley-based Center for Ecoliteracy received a three-year grant from the United States Department of Agriculture (USDA) to improve school meals and create instructional gardens in schools. A partnership between the Center for Ecoliteracy and the Superintendent's Group, along with community pressure, led to the formation of the Berkeley Unified School District Food Policy in August 1999.

Adopted after a unanimous vote by the school board, the policy defined district goals for nutrition, nutrition education, and physical fitness, and clarified the connections between food, health, and learning.

Moreover, the policy directly supported the provision of organic produce and the removal of additives, preservatives, and non-natural ingredients whenever possible. Because of this directive, its adoption was monumental and it has become a model food policy for other school districts.

CHILD NUTRITION ADVISORY COMMITTEE

The BUSD Food Policy established the Child Nutrition Advisory Committee (CNAC) to oversee progress on the policy's goals. CNAC was a formalization of the Superintendent's Group, and was composed of 29 members, including 5 students. CNAC met monthly, reviewing progress in Nutrition Services, conducting pilot projects, and visiting schools in Berkeley and other districts to see what they were doing. Over time, CNAC convinced the school board that Nutrition Services needed an overhaul to provide better food to children, and that Berkeley residents cared about making the necessary changes. For example, CNAC worked diligently to pass a bond measure that supported funding school facility repairs and upgrades, including improving cooking facilities.

The district's recycling coordinator joined CNAC in 1999 after she observed uneaten food going into the trash. She regularly ate lunch at the schools and reported back about how the menu was or was not evolving. She also produced a newsletter in 2001 reporting on progress in the meal programs and sent it to all BUSD parents. Her and other members' efforts led CNAC to become an important watchdog for Nutrition Services. In 2005, when professional chef and author Ann Cooper began her work as part of the School Lunch Initiative, the CNAC ended. A new group was formed (the Healthy School Food Advisory Committee) to monitor the changes being made through the School Lunch Initiative.

SCHOOL GARDEN PROGRAMS

While one of the first school gardens was created at Le Conte Elementary School in 1982, three of Berkeley's most significant school gardens began in the early 1990s. In 1990, a longtime parent volunteer launched a cooking and gardening program at Willard Middle School, and began what is now known as the Willard Greening Project. The Greening Project's aim was to beautify the school, but it also functioned as a production garden aimed at supplying the school with fresh fruit and vegetables.

In 1998, the Greening Project removed 2,200 square feet of asphalt and installed raised garden beds in the schoolyard. The garden began producing 15 to 30 pounds of lettuce and salad greens per week. The primary destinations for the greens were the school lunches of two schools, Willard Middle School and Jefferson Elementary School. The garden allowed Willard to serve a free soup and salad lunch once a month. The remainder of the produce was sold at the local farmers' market or donated to a local shelter for homeless families.

Created in 1994, the second BUSD garden was a small 150-square-foot patch across the street from Malcolm X Elementary School. Students were allowed to visit at recess and after school. In 1999, it was expanded to a 4,000-square-foot garden on campus and now accommodates the entire student body.

At about the same time, chef and food activist Alice Waters began to develop the Edible Schoolyard at Martin Luther King Jr. Middle School. Funding from the Center for Ecoliteracy helped jump-start the Edible Schoolyard, which is now the flagship program of the Chez Panisse Foundation. The Edible Schoolyard is a one-acre organic garden and kitchen classroom, and serves as a beacon for kitchen- and garden-based education in schools throughout the nation.

In October 1999, the district received funding from

the California Nutrition Network, now known as the Network for a Healthy California, to start garden and cooking nutrition education programs at six eligible schools. Funded by the USDA's Food Stamp Nutrition Education Program, the network provides 50 percent-match funding based on in-kind nutrition education provided by participating schools. In order to receive funding, a school must have at least 50 percent of its students eligible for free or reduced-price school lunch. Currently, the network funds 9 school kitchen classrooms and 11 school garden programs, including a preschool program.

District-wide, BUSD now has a garden in every school and a total of 10 kitchen classrooms.

Non-network garden and kitchen programs are supported by parents, volunteers, and community groups.

INTEGRATING GARDENS AND KITCHENS INTO THE ACADEMIC CURRICULUM

An important part of the vision of the School Lunch Initiative was to integrate hands-on experiences in the garden and kitchen into the academic curriculum. The integration of school lunch into the academic curriculum has been led by the Center for Ecoliteracy. The Center has provided resources, professional development, and access to leading practitioners for BUSD teachers and school teams for more than a decade. The organization developed a conceptual framework for an integrated curriculum linking food, culture, health, and the environment as part of its Rethinking School Lunch and Food Systems project, which is currently being used by teachers in Berkeley and beyond.

RECYCLING AND COMPOSTING

As did lunch program reform, recycling efforts at BUSD began with parent volunteers. In 1995 at Martin Luther King Jr. Middle School, a parent started the first recycling program in the district, which separated mixed paper, cans, bottles, and trash. Later serving as the recycling coordinator for BUSD from 1997 to 2002, the parent was able to set up recycling programs funded by the Alameda County Waste Management Authority in several schools. In 1999, Berkeley High School started recycling paper in classrooms, and bottles and cans in the courtyard after lunch.

Despite individual school-based successes, the recycling coordinator encountered institutional barriers preventing a more district-wide approach, including a lack of clearly stated recycling responsibilities and duties within district policies and existing job descriptions and contracts. In response, the recycling coordinator proposed a "green policy" for the district, expanded to include not only recycling but also more sustainable procurement practices. On March 7, 2001, the Resolution Establishing a Green Procurement Policy was passed by the school board. Since this district-wide change was implemented, schools have made more progress in developing comprehensive and sustainable recycling systems, underscoring the need for support on the school level to enable their success.

Gradually, many of the school gardens began to compost; some of them had already been composting for several years. In 2007, the Nutrition Services Department began composting all of its kitchen waste.

THE BOND MEASURE

In 2000, the Berkeley school district put on the ballot Measure AA/BB, which totaled $116 million in bonds to fund the repair and upgrade of school facilities. Initially, there was resistance to including school kitchens in the planned upgrades. Parent volunteers responded by urging BUSD to include questions about kitchens in a public opinion poll to gauge support for the measure. The results showed that kitchens were one of the most popular areas for spending. BUSD allies, the Center for Ecoliteracy, and the Chez Panisse Foundation campaigned for the measure to pass. Alice Waters contributed to the publicity campaign promoting new kitchens in Berkeley public schools. Berkeley residents responded by approving the measures by an overwhelming 83 percent.

Measure BB slated more than $11 million for new kitchen and cafeteria construction. Two of the largest allocations of these funds were first for an overhaul of the Central Kitchen to make it suitable for scratch cooking, and second for the construction of a new cafeteria (known as the Dining Commons) at Martin Luther King Jr. Middle School, conceived to include

a teaching kitchen that would enable children to participate in cooking their own lunch. Ground was broken for the King Dining Commons in 2004, and the finished space opened in fall 2008. When the Dining Commons opened, it became the new Central Kitchen for the district and served as a cafeteria for King students. Students have not yet been involved in their own lunch preparation, but the plan remains to involve them in some way as the rhythm and flow of the Dining Commons become more stable.

SCHOOL EXPERIMENTS: SALAD BARS AND FOOD COURTS

Leadership changes at the district level in Berkeley also influenced the direction of school lunch reform. The district greeted a new director of Nutrition Services as well as a new superintendent in July 2001. The new director streamlined the Nutrition Services Department and meal production, and helped launch international food courts at Berkeley middle schools in 2002. These food courts and salad bars were funded at two middle schools through a Linking Education, Activity and Food grant administered by the California Department of Education and funded by the California Department of Food and Agriculture. Free and reduced-price school lunch participation increased to more than 50 percent at Longfellow Middle School with the installation of the salad bar, which allowed the school to receive funding for a garden/kitchen program through the Network for a Healthy California.

In 2003, the Nutrition Services director began implementing a swipe-card payment system in the middle and high schools. This system allows students to use debit-style cards to pay for their meals. This speeds up the payment process and removes the stigma against those students who receive free or reduced-price lunches and who previously had to use paper tickets to pay for their lunches or had to have their name looked up on a list. By 2004, funding was secured from USDA Breakfast Grants to introduce swipe cards in the elementary schools, and by the end of 2005 the entire district was on the system.

In an effort to be consistent with the BUSD Food Policy, and with the support of the school board, in the 2002–03 school year all à la carte food sales and vending machines were removed from the district with the exception of a healthy snack bar that was created in 2008.

THE HIGH SCHOOL

The Berkeley High School suffered a fire in 2000, which prevented on-site cooking until its cafeteria and kitchen were redesigned and reopened in 2004. Precooked meals were brought to the campus during the period of renovation. In 1999, a mobile food cart was introduced in the courtyard to help alleviate the exodus of high school students into the surrounding downtown at lunchtime. The Food Systems Project (sponsored by the Center for Ecoliteracy) worked with community activists and local restaurants and vendors to get delicious, healthy food onto the campus during this time. Though student feedback was favorable, the program ended after the seed funding ended.

Currently, the high school has four stations open for lunch: two hot entrée stations, a sandwich bar, and a salad bar.

In 2008, the district opened a healthy snack bar selling fruit, yogurt, and soup.

Because the high school is an open campus, many students still go off campus for lunch. Only about 10 percent of the students eat lunch on campus.

NATIONAL AND STATE POLICY

In 1995, the California Department of Education launched the Garden in Every School Initiative under Superintendent of Schools Delaine Eastin. As a result of this initiative, the state passed several significant pieces of legislation that signaled a movement toward healthier food in schools. In October 2001, Senate Bill 19—the Pupil Nutrition, Health, and Achievement Act of 2001—established a pilot program to test nutrition standards in 14 California school districts, including Berkeley. In September 2005, Senate Bill 25 established school nutrition standards for grades K–12, and that same year Senate Bill 965 banned soda sales in California high schools.

On the national level, while reimbursements and nutritional guidelines remained basically the same, the federal government began to require districts participating in a reimbursable school lunch or breakfast

program to develop a Wellness Policy as part of the Child Nutrition Act Reauthorization of 2004.

LAUNCH OF THE SCHOOL LUNCH INITIATIVE

Despite the efforts of Berkeley's Nutrition Services Department, the superintendent, the school board, and community-based groups, by 2004 the food policy was still not being implemented consistently, and lunch in most schools remained highly processed.

The School Lunch Initiative was launched in 2004 through a public/private partnership with the Berkeley Unified School District (BUSD), the Center for Ecoliteracy, and the Chez Panisse Foundation.

The goal of the School Lunch Initiative was to teach every child to grow, prepare, and eat nourishing, delicious, and sustainably grown food; to empower students to make healthy food choices; and to educate students about the connection between these choices and the health of their families, communities, and planet.

As part of the learning experience, students would have access to delicious, healthy, seasonal meals made from local, sustainably grown ingredients. As part of the curriculum, students would participate in activities that included growing, preparing, serving, and enjoying food with adults and their peers.

The Chez Panisse Foundation agreed to jump-start the changes in the cafeterias by paying for a chef who could realize this vision over three years. Ann Cooper was hired by the district in October 2005 as the new director of Nutrition Services with a grant from the Chez Panisse Foundation. Cooper had been a consultant to the Chez Panisse Foundation and had a clear vision of how to implement changes.

Under her direction, all processed food was eliminated from school lunches and breakfasts. Freshly cooked food served buffet-style replaced prepackaged lunches in aluminum foil trays. All schools now use real or compostable plates. Fresh fruits and vegetables are served at every meal, and there is a salad bar in every school. A swipe-card system that allows students to electronically pay for their meals (or receive free ones through government subsidies) was completed. All of the kitchen food waste is being composted, and the district is moving toward using all green cleaning products.

To introduce the changes and to solicit feedback, in 2006 Cooper created the Healthy School Food Advisory Committee, which has provided input on how best to increase participation in school lunch and has supported the changes made by the School Lunch Initiative over the last three years. Membership includes parents, community leaders, city officials, a retired doctor, and school district staff.

School Lunch Initiative Accomplishments

- Salad bars in every school
- Fresh fruits and vegetables at every meal
- Organic milk served at lunch
- Grass-fed hamburgers and hot dogs served
- All processed foods and high-fructose corn syrup removed
- Increased participation rates
- Free breakfast to all students in all schools regardless of income
- Buffet lunch service at all schools
- Composting of all kitchen waste and use of green cleaning products
- All produce regionally sourced, from California to Washington state, and 30 percent organic and local (from within 150 miles)

EVALUATING OUR WORK

In an effort to measure the progress and impact of the reforms, the Chez Panisse Foundation funded a three-year evaluation of the School Lunch Initiative. Researchers at the Dr. Robert C. and Veronica Atkins Center for Weight and Health at UC Berkeley designed a study to identify the barriers to and successes of the School Lunch Initiative; the perceptions among teachers, parents, students, and other stakeholders in the effort; and the impact of the School Lunch Initiative on student attitudes, knowledge, and behavior related to food, active lifestyles, learning, and health.

The researchers selected four elementary schools and agreed to follow 300 students for a period of

three years (from fifth grade through seventh grade) as they matriculated into three middle schools. Each of the schools had a varying level of implementation of the School Lunch Initiative. While all schools adopted the changes in the meal program, the extent to which kitchen and garden programs exist varies among the schools. The integration of lunch into the schools' academic curriculum also varies. As part of the evaluation, the researchers collected food diaries from the students; interviewed parents, teachers, and food service staff; and analyzed other data such as academic achievement, student body mass index, and plate waste (the food children don't eat and throw away).

Baseline data was collected in 2007 and the second-year report was released in 2008. Preliminary data from the second year of the study showed that students who had more exposure to kitchen/garden education programs were more likely to eat fruits and vegetables both at home and at school. The results of the third year of the evaluation will be available in the fall of 2009.

What We Learned

It has taken decades of support from community members, local funders, and parents to make the changes that have come to life as part of the School Lunch Initiative. None of the changes would have been possible without the support of individuals who continued to show up at board meetings, sit on committees, and volunteer their time in schools. Additionally, it has been important to have a supportive and vocal superintendent and Board of Education to make critical policy changes and investments in the meal program.

While strong leadership and policy change have been critical, it has also taken someone on the inside to make the changes—someone who knows how to cook and understands the importance of eating locally and seasonally. Furthermore, just putting healthier food in schools was not our strategy—from the beginning, we wanted to source our food locally and to develop relationships with farmers. Our effort has been about supporting a sustainable food system as well as making food healthier for children.

Finally, it's not just about changing the food. While we made serious changes to the food these past three years, there has been an equally important emphasis on education. The kitchen and garden programs have been critical to our success. While we have not yet seen system-wide changes in the academic curriculum to support our work, we have made inroads with the kitchen and garden programs. Preliminary data from the second year of our study confirmed that students who have more exposure to kitchen and garden programs are more likely to choose fresh fruits and vegetables both at school and at home.

food for thought

- **Involve the community in the process.**
- **Hire someone who can cook fresh, seasonal food.**
- **Don't just try to take the bad stuff out.**
- **Leadership matters in the district.**
- **Evaluate your work independently.**
- **Are you willing to make the up-front investments needed for real change?**

CHAPTER TWO

REVENUE AND EXPENDITURES

How much does a healthy meal cost? First, it depends on how you define "healthy." In Berkeley, our definition of "healthy" includes meals prepared with fresh, local, seasonal, and sustainable ingredients. Deliciousness matters just as much as nutrition. Where the food comes from, when it is cooked, and how it is served are important to us. This chapter describes both the revenue and the expenditures related to transforming school lunch programs and how we leveraged multiple funding sources to implement fresh, seasonal, and nutritious meals in the Berkeley public schools.

Revenue

Most districts use several methods to increase their revenue from food sales: increasing participation, selling competitive foods (either inside or outside the cafeteria), and raising prices. These and other options are considered below, but first it is important to understand how funding through the National School Lunch Program works.

NATIONAL SCHOOL LUNCH PROGRAM

The school lunches served in U.S. public schools are monitored and subsidized by a federal program called the National School Lunch Program (NSLP). NSLP is a 60-year-old federal meal program that serves 30 million children a day, and which presently spends 8.7 billion of our tax dollars each year. Through the USDA, the program provides reimbursements and commodity entitlement dollars to schools for each meal they serve.

In addition, it provides free and reduced-price meals to eligible families. To qualify for free school meals, a family of four must be earning an income of no more than $27,560 per year. This number is the same nationwide.[4]

Reimbursements

Schools are reimbursed for each meal they serve. The federal reimbursement rates for a free lunch in 2007–08 for schools that served 60 percent or more free and reduced-price lunches in 2006–07 was $2.49 (which includes money for required milk and fruit purchases). The reimbursement rate for a reduced-price lunch was $2.09, and it was 25¢ for a paid meal.

2007–08 Federal Lunch Reimbursements

	Reimbursement per Student	Percentage of Total Lunches
Free	$2.49	64
Reduced-price	$2.09	10
Paid	$0.25	26

In 2008–09, the federal reimbursement rate increased slightly to $2.59 for a free lunch. Assuming most districts have to spend at least two thirds on labor costs, that only leaves 87¢ per meal for food costs.

When you do the math and build in labor and equipment costs, this is not very much money to work with. Basically, after labor and other costs are factored in, schools have less than $1 per student per day to spend on food for lunch.

Commodity Entitlements

Schools receive commodity entitlement dollars for each free and reduced-price lunch they serve. For the 2008–09 school year, that amount is 20¢ per lunch. Commodity entitlements are surplus agricultural products purchased by the USDA for distribution to the NSLP and other government feeding programs. These surplus products are sold to districts at "fair market value," which is often much lower than the commercial price. For example, while the fair market value price of cut chicken is 59¢ a portion, the commercial price is 98¢ a portion.

Berkeley's allocation in the 2007–08 school year was $71,335. One hundred percent of the commodity entitlement food value is applied to the lunch food cost,

which in 2007–08 was approximately $617,000, or 11.5 percent of the value of the meal, based on the USDA's valuation of the commodity offerings. However, when comparing the commercial price of many of the products on the commodity list, the fair market value for the foods is often 25 to 60 percent lower than the price at which the district could actually purchase the food. The resulting value of the commodity product to the BUSD lunch menu is closer to 18 percent of the real market cost of the meal.

Commodity entitlements are a less costly way of obtaining food, but there are several disadvantages to the system. Districts often try to stretch their entitlement as far as possible through the purchase of highly processed foods. USDA surpluses such as beef, chicken, pork, cheese, flour, milk, eggs, oils, corn syrup, and some fruits and vegetables are usually run through a series of channels between producer, broker, and processor and return back to our schools as ready-to-serve main-course meals.

These boxed main-course meals are the economic foundation of most school district meal programs and often enable districts to budget costs for an elementary school student's lunch at approximately 80¢ or less, not including labor.

This kind of boxed main-course meal, designed by food manufacturers to meet USDA nutrient-based requirements, creates an environment where it's very difficult to make an argument for spending more on meals made from fresh, seasonal, and local ingredients. Other considerations about the meal's taste, attractiveness, and use of a wide variety of fresh, local, sustainably grown ingredients also contribute to the health and well-being of the average student.

Looking only at the commodity entitlement equation, it costs a district less to serve a commodity-processed chicken-nugget-based meal than it does for the district to accept or "spend" its commodity entitlement on raw, whole chicken. A marriage of volume discounts offered via food manufacturers creates these "savings." Consider a serving of chicken nuggets that "costs" a district 14¢ of its commodity entitlement. If the district uses cut-up raw chicken pieces, also a commodity product but not "sent" to a processor, one actual portion of chicken will cost slightly more, 20¢, but the greater costs for the district are the facility infrastructure and labor needed to transform that raw chicken into a meal. This pattern of feeding children without actually doing a lot of cooking has contributed greatly over the past 30 years to the loss of facilities and personnel capable of handling fresh food.

STATE FUNDING

States may also provide reimbursements for school meal programs. For example, in California the reimbursement for 2008–09 is 19¢ for lunch or breakfast.[5] Also, from 2005 to 2007, there was a two-year pilot program called the Fresh Start Program that provided an extra 10¢ per child for fresh fruits or vegetables for breakfast or snack. However, this funding was canceled due to state budget cuts in 2007.

In California, Meals for Needy (also known as Revenue Limit Source) funding is another source of state revenue. Not all districts in California receive this funding and those that do receive it use it in a variety of ways. Prior to the implementation of the School Lunch Initiative in 2005–06, Meals for Needy funding was considered part of the district's general fund and was then given to the Nutrition Services Department. This made the district's general fund contribution to the Nutrition Services Department seem artificially high. As part of the reorganization of the Nutrition Services budget, Meals for Needy money started to come directly to the Nutrition Services Department instead of being lumped into the general fund.

The Role of Universal Breakfast: Leveraging State and Federal Funds

By the end of the 2007–08 school year, BUSD school reimbursements from the Meals for Needy revenue stream were approximately $847,952, a 50 percent increase in revenue.

This huge increase was accomplished through the establishment of "Universal Breakfast" in the classroom at all Berkeley schools except the high school, where it is served in the cafeteria. Universal Breakfast is a program that allows all students to eat breakfast for free regardless of income.

Despite access to breakfast being a primary goal of the district's food policy, as recently as the 2004–05 school year, participation was only at 58,464 meals annually. By 2007–08, 853,475 breakfasts were being served.

In 2007–08, the Meals for Needy reimbursement was $1.27 for breakfast *and* $1.27 for lunch (unlike the federal reimbursement for free/reduced-price lunch). Breakfast is less costly to procure and produce than lunch, with a total cost of $1.31 per student. Typical breakfasts include cereal, milk, and fresh whole fruit. Berkeley's decision to "go universal" had several benefits. It helped fund the program change, fulfilled a goal of the food policy, and established solid groundwork for improving participation in lunch. From 2005–06 to 2008–09, the number of breakfasts served annually rose from 126,183 to 852,300, or 675%.

*Universal Breakfast: How Meals for Needy Funding Helps**

Type of Meal	Federal Reimbursement	State Reimbursement: Meals for Needy	Total Revenue
Free	$1.61	$1.27	$2.88
Reduced-price	$1.31	$1.27	$2.58
Paid*	$0.24	$0.00	$0.24

**A paid breakfast or lunch is one for which a student pays out-of-pocket full price. There is a reimbursement for those meals from the federal government. The reimbursement rates in this chart are for 2007–08.*

Making Breakfast Efficient

Given the income the district sought via the Meals for Needy revenue stream, the challenge was to create a system of meal delivery that would not require too many additional costs. Serving breakfast in the cafeterias would be the most efficient and cheapest system but it would not reach as many students. After various experiments and conversations with students, teachers, principals, and custodial staff, the Nutrition Services Department agreed to deliver breakfasts to classrooms. This cost slightly more than simply serving it in the cafeteria, because more labor was involved in packing the food, but it worked better for the schools. Over time, the schools have found that starting each day by eating together is a solid step toward establishing the concept of community and education through meal sharing.

Universal Breakfast: How Much Does It Cost?

Component	Cost
Food	$0.75
Labor	$0.40
Other	$0.16
Total	**$1.31**

To be successful with the Universal Breakfast program, each school needs to devote an average of about 3.5 hours per day of on-site labor. Greater labor efficiency was gained by cutting out the middleman: schools reduced deliveries by Nutrition Services warehouse drivers and expanded relationships with vendors who could deliver to all sites directly. (For example, Greenleaf Produce now carries and delivers baked-to-order items from another of our local vendors, FullBloom Baking Company.) Students also got involved, helping to transport the meals in insulated carriers from the cafeterias to the classrooms. This engagement helped connect students to the actual meal delivery and kept additional labor costs in check, further enabling the program's success.

The other way to keep breakfast costs down is to make the breakfasts simple: a piece of whole fresh fruit, milk, whole-grain cereals, muffins, bars, eggs, and/or cheese.

COMPETITIVE FOODS

Competitive foods are foods and beverages made available to students outside of federally qualified school meals. These foods can include any à la carte item sold in the cafeteria or elsewhere on school property, including school stores, vending machines, fund-raising events, and snack bars. While all food served in public schools has to meet federal and state standards, competitive foods have almost no restrictions on portion size, nutritional content, or location of sale. Because of this, the abundance of food that is popular but of very low nutritional value inside schools across the United States is the common stopgap of most Nutrition Services–strapped budgets.

In 2002–03 Berkeley took a step many school districts have yet to attempt—it removed all competitive foods from the system. The Wellness Policy passed in 2005 provided a mandate for removing vending machines from all elementary and middle schools. Berkeley High School initially resisted this removal, because competitive foods were a source of significant revenue for the school. However, in 2006–07, the director of Nutrition Services led the opening of a healthy snack shop at Berkeley High School to serve freshly cooked soup or chili in a bread bowl; bagels and cream cheese; yogurt smoothies and parfaits; organic whole-grain bars; soy milk, water, and fruit spritzers. The healthy snack bar is now very popular and continues to offer nutritious food to students. It is possible to sell healthy foods at school that are nourishing and delicious for everyone.

MEAL PRICES

Paid meals account for only a quarter of our revenue. In 2005–06, the school board increased the price of paid meals in the district by 50¢. (For example, a paid lunch went from $3.50 to $4.00 at the high school.) The district's goal is to better align meal prices with meal costs, rather than having the paid-meal prices supported by the reimbursements from free and reduced-price meals. Many districts use revenue from their free and reduced-price meals and competitive food sales to subsidize the cost of paid meals, maintaining very low prices in an effort to keep participation up. In some districts across the country, the cost of a hot lunch to a paying high school student can be as low as $1.50, a little more than half of the federal reimbursement rate. What this means is that if a district receives $2.59 for a federal reimbursement (the 2008–09 rate) but only charges $1.50, in a district in which 50 percent of students qualify for free and reduced-price lunch, the average meal revenue is only $2.03, which is 25 percent less than the federal reimbursement rate.

In Berkeley, where emphasizing freshly cooked whole foods and food education are priorities, it is not feasible to offer meals at a price that is so far below the cost of doing business. This simply encourages the reliance on the cheapest and lowest-quality meal that will qualify for reimbursement and is counter to the philosophy and policies of the Berkeley Unified School District.

Changing preconceptions of what a school lunch should cost can be as challenging as changing the contents of the lunch. Parents expect a subsidized meal and don't necessarily connect cheap food with bad-quality food—the assumption being that the contents can be changed and it should still cost very little to produce.

Lunch Pricing per Meal 2000–Present

	Elementary	Middle	High	Adults*
2001–02	$2.00	$2.50	$3.00	$3.50
2002–03	$2.50	$3.00	$3.00	$4.00
2005–06	$3.00	$3.50	$3.50	$4.00
2007–09	$3.00	$3.50	$4.00	$5.00

**Prices shown reflect high school meals for adults. Prices for adults at elementary and middle schools are incrementally lower but increase from year to year at the same rate as high school meals.*

PARTICIPATION

Participation is critical to securing federal reimbursements. Ensuring that students who quality for free or reduced-price lunches sign up and eat is critical because the reimbursements bring in the majority of the revenue for the school lunch program.

> *A core strategy of ours was to improve the quality of the food, which we thought would increase participation rates for both free and reduced-price students and students who were paying for their lunches.*

At first, our participation rates at lunch dropped, but they have started to climb as children become more familiar with the new foods. Universal Breakfast has made our participation rates at breakfast increase dramatically.

Participation rates are typically calculated by dividing the average number of meals per day by the total student enrollment. The average number of meals per day is calculated by dividing the total meals served by the number of days that the meals were served. In this case, we used 180 days as a proxy since that constitutes a typical school year.

Keep in mind that participation rates do not always accurately reflect who is eating the meals and how often, because they are based on enrollment numbers that are taken in October of the school year, and daily attendance can fluctuate significantly. In addition, participation rates can vary significantly from school to school and from month to month. For example, school activities including classroom celebrations and field trips will impact participation. There is generally less participation immediatley before and after holiday breaks. Daily participation rates for December and January tend to be low. Overall, our participation rates dipped slightly as we started to implement the reforms across the district, but they are increasing again.

Participation rates at the high school and middle school are particularly low even though they appear to be creeping upward. Students at those ages are much more particular about what they eat and are more interested in spending time with their friends away from the cafeteria during the lunch period. Our high school has an open campus which lures students off campus for lunch.

Looking at the district averages for participation can mask progress being made at individual grade levels, particularly in the younger grades, so we provide charts that separate the data by grade level. The data were not available to distinguish between free and reduced-price lunch participation versus paid-lunch participation.

Participation Rates per Meals Served

BREAKFAST *Meals Served*

	2005–06	2006–07	2007–08	2008–09*
Elementary	99,641	234,120	555,699	553,451
Middle	13,706	93,263	232,982	267,830
High	12,836	20,513	30,391	31,019
District	126,183	347,896	819,072	852,300

BREAKFAST *Participation Rates (percentage of students)*

	2005–06	2006–07	2007–08	2008–09*
Elementary	15.1	35.8	85.5	85.5
Middle	4.3	28.7	71.0	81.6
High	2.0	3.5	5.0	5.1
District	7.8	22.2	51.8	53.9

LUNCH *Meals Served*

	2005–06	2006–07	2007–08	2008–09*
Elementary	245,850	228,711	243,983	259,995
Middle	95,043	83,813	75,082	107,178
High	52,495	39,157	46,138	49,041
District	393,388	351,681	365,203	416,214

LUNCH *Participation Rates (percentage of students)*

	2005–06	2006–07	2007–08	2008–09*
Elementary	37.4	35	37.7	40.1
Middle	29.6	25.8	22.9	32.6
High	8.3	6.7	7.6	8.1
District	24.5	22.5	23.1	26.3

Source: BUSD Nutrition Services 2008

**2008–09 numbers are projected based on trends at the end of the 2007–08 school year. BUSD expects lunch participation to increase by 5% across the district with the opening of the Dining Commons.*

The delivery of extra meals may at first seem to create new costs, but it can create more efficient economies of scale. For example, say a district has two food service staff members at an elementary school, and say they serve 150 meals but could actually be serving 300 meals. If the school increased participation rates, it could bring in more revenue to support higher-quality food without increasing fixed costs such as labor.

Increasing Participation

There are several strategies for increasing school meal participation and getting children to eat fresh, wholesome foods. One way is through kitchen and garden classrooms. Sixteen schools in BUSD have gardening and cooking programs that are at various stages of development, aided in large part by the Network for a Healthy California. These programs introduce students to foods that are then served in the

salad bars and teach children how to cook healthy, seasonal foods at home. We have found that if the food looks familiar to them, they are more likely to eat it. At the Edible Schoolyard, we have certainly learned that when children grow it and cook it, they eat it.

In addition to programs that engage children, it is critical to engage parents and the larger community. We have found that simple strategies such as handing out a calendar with all of the school menus for the year on it, sending letters to parents, speaking at PTA meetings, and using regional and national press have been useful in advertising the changes we've made. Parents have been our biggest supporters.

Making the cafeteria beautiful is another place to start. Students will want to eat food in a place that makes them feel as if they are cared for: a place that smells good and where they feel welcome. Some of our schools play music in their cafeterias. The Dining Commons at Martin Luther King Jr Middle School was designed with beauty in mind. The tables are made from reclaimed wood and there are decorative tiles in the kitchen. The compost and recycling bins are attractive, and the room is filled with light. There is a small herb garden adjacent to the Dining Commons, and there are plans for a grove of orange trees to line the entrance.

Finally, to support educational experiences in the dining room and increase participation in the meal program, we have found that scheduling recess before lunch and lengthening meal periods are important.

> *Children are less likely to skip lunch so they can run and play with their friends on the playground. Instead, they exercise first and then have a good appetite when they enter the lunchroom.*

They are not in a rush to leave the lunchroom, because they are just going back to class!

DISTRICT FUNDING: THE GENERAL FUND

Berkeley's Nutrition Services Department received funding from the BUSD general fund prior to the start of the School Lunch Initiative in 2005–06. This funding was seen as a "bailout"—a way to deal with a deficit situation—despite the fact that other departments receive monies from the general fund and those expenses are characterized as essential (for example, transportation or special education).

With the arrival of leadership and a real plan to transform the food and make the Nutrition Services Department more efficient, the superintendent and the school board began to see the general fund contribution differently.

Meals for Needy money went directly to Nutrition Services as described earlier, and the additional general fund monies became a necessary contribution to creating and sustaining an entirely new school lunch program.

In the first two years of program change, from 2005 through 2007, contributions to Nutrition Services from the general fund increased—but as the department installed new systems and implemented training, increased its efficiency (through economies of scale) and started to increase revenues, general fund contributions decreased and will continue to do so as school lunch participation increases.

BUSD's continued commitment to supporting our vision—despite changing school boards and superintendents—is essential for program sustainability and required by any district undertaking a similar school lunch transformation. In committing to the vision and being realistic about the additional costs and the time line for implementation, BUSD is identifying the paths to long-term sustainability in improving the health and education of our youth.

Expenditures

LABOR

For many districts, labor is the largest expenditure in operating a food program. Depending on a district's location and its union or non-union classifications of Nutrition Services positions, labor and benefits expenditures will often exceed 50 percent of its budget. It is this simple fact that has driven

the economization of labor in Nutrition Services, possibly because of the relative lack of skill and time involved in preparing highly processed, prepackaged, frozen foods.

Often the job description of your average Nutrition Services employee does not include any culinary training, food safety knowledge, or experience with children. Depending on the district, the part-time Nutrition Services employee may be receiving benefits typically aligned with any full-time district employee, making the cost of part-time staff quite high.

Simply put, schools are not cooking.

A return to scratch cooking means preparing fresh foods, and that requires expenditures in personnel—including hiring highly skilled professionals with a background in cooking. Offsetting the costs of training new personnel is possible in large part through efficiency, which is addressed in the Human Resources chapter. Overall personnel expenditures in Berkeley, including benefits, have risen 22 percent since scratch cooking began, but the cost of personnel relative to revenue has dropped 7 percent. Now that the program is moving out of its start-up phase and participation is increasing, the costs of labor relative to revenue will continue to drop.

Costs per Meal
2007–08 at Second Interim

	Breakfast	Snack	Lunch	Combined	Percentage of Total Cost
Food	$0.75	$0.45	$1.40	$2.60	36.2
Labor	$0.40	$0.35	$3.06	$3.81	53.1
Other budget items	$0.16	$0.10	$0.51	$0.77	10.7
Total	**$1.31**	**$0.90**	**$4.97**	**$7.18**	
Percentage of labor	**10.5**	**9.2**	**80.3**		

Salad bars are a perfect example of the extra labor hours involved in offering whole, fresh food, but also of the many benefits to be gained. As part of the SLI, we put salad bars in every school in the district. Salad bars added about 3.5 labor hours per day per site, but because they offer choice and a hands-on experience with food, they serve as a great promoter of fresh fruits and vegetables. They are also a tool for teaching about seasonality and linking what children are learning in the garden and classroom to the lunchroom. The average salad bar selections in a child's lunch cost approximately 20¢ (food costs only) of the overall $1.40 budgeted for the meal, in addition to the needs of a site serving fresh food as opposed to heating up premade packaged entrées.

FOOD

After labor, food is clearly the next largest expenditure in a meal program. Procuring the kind of food that the School Lunch Initiative envisions—food that is fresh, wholesome, organic, local, and seasonal—required some new expenses.

We were looking for higher-quality food and knew that there would be costs related to the production, processing, and transportation of that food to the schools.

The higher prices had to be worked with and not against. To procure and serve food in line with our vision and budget, Nutrition Services had to make very careful choices.

From Vision to Reality

Considering current government reimbursement rates and typical price points, almost no public school—unless it is heavily subsidized by parents and/or the district—can afford to buy everything organic and locally. Especially with rising food prices, meat and milk are two foods that serve as examples of the challenges involved in sourcing better ingredients while keeping costs in check. Because certain organic products are much more expensive than their conventionally grown counterparts, one strategy we used was to procure foods that are "organic to the maximum extent possible."

For example, by choosing to purchase drug-free, grass-finished burgers and hot dogs from a regional sustainable farm, we made the distinction between certified organic and a product that was sustainably produced but not certified. This product is better than conventional, and less expensive than certified organic.

Another strategy for procuring these foods within budget was to design the menu so they were used less frequently.

Milk has also long been considered a staple of school lunch programs, and it presented the district with several problems and opportunities. To achieve the goal of "no corn syrup," the district removed all chocolate milk. Nutrition Services also took advantage of the federal standard of "offer versus serve," meaning that they emphasized the fact that milk was one of many meal choices but not a requirement. This reduced the compulsory milk serving and lowered the overall district need for milk, especially given that Berkeley delivers calcium in a number of ways via other dairy products and vegetables.

To afford a higher-quality product, Nutrition Services also stopped serving milk in individual containers whenever possible. Half-pint organic milk is much more expensive than its bulk counterpart. Bulk serving also reduces milk waste and saves money because students are more likely to serve themselves the amount they will drink. However, we do not serve milk in bulk for breakfast, because the only reliable delivery method for milk to classrooms, where breakfast is served, is in individual containers. Because organic half-pint milk is so cost prohibitive, we implemented our "organic to the maximum extent possible" principle, and so opted to serve half pints of rBGH-free milk at breakfast.

In our second year of expanding delivery and services at all Berkeley elementary schools, serving meals on-site from catering-style steam tables revolutionized the lunch experience and made a huge step toward higher participation. Students could smell the food and it tasted better. We were no longer serving them in small tin-foil trays that made the food look institutional and unappetizing.

Finally, another strategy is offering the beverage alternative of water, which is the drink most often missing from lunchrooms across America.

Water access in the cafeterias was accomplished with five-gallon containers (refillable with free city water), a spigot dispenser, and cups. Without impacting meal costs, one of the healthiest beverage options one can choose is now a staple in school cafeterias.

Making the Most of Commodity Entitlements

Many commodity foods are not consistent with the vision of the SLI, but they are attractive to districts for their cost-saving potential: entitlement dollars are free, and commodity foods are sold at fair market value, which is lower than the cost of their commercial counterparts. Moreover, commodity foods are increasingly processed, which reduces labor hours. This makes it difficult for districts to change their programs, because commodity entitlements are often the centerpiece of their budgets. The situation is even more difficult considering that many of the processed commodities somehow manage to meet the USDA nutritional guidelines for school meals (based on 1995 standards). Budget realities may make it impossible for districts to opt out of the commodity system, but strategies can be used to reap the cost savings of the system without entirely sacrificing the vision of the SLI. These procurement strategies are discussed in the Procurement chapter.

What We Learned

Today "self-sustaining" Nutrition Services budgets are held hostage by the junk food that balances the budget sheet. We reframed the "cost" by understanding that one cannot demand a better program if one doesn't contribute to it, and by knowing how to utilize the existing federal budget.

We have made all of the changes to the Berkeley school meal program by leveraging federal, state, and district resources. We realize that most Nutrition Services departments do not have the additional dollars from their district's general fund. Even though what we receive from the district is a small portion of the overall budget for meals, it is critical gap funding.

In addition, most states do not provide additional funding to districts through revenue streams like the Meals for Needy funding. This revenue source has been critical to our model. The strategy of using Universal

Breakfast to help leverage federal resources in combination with strategies to create economies of scale could be replicated by other districts.

Ultimately, free and reduced-price lunch reimbursement rates need to be increased if more districts are to follow our path, and more districts have to begin to think about supporting their lunch programs financially if they want to provide children with better food. Until that happens, Nutrition Services departments can still take baby steps toward serving higher-quality meals with fresh foods. Salad bars, for example, are an important starting place because they expose children to fresh fruits and vegetables.

food for thought

- **Change the way district leaders think about funding lunch.**
- **Support increased state and federal funding.**
- **Be creative with your funding.**
- **Be willing to make compromises along the way.**
- **Find economies of scale.**
- **Initial investments may be needed up front.**
- **Give the reforms time.**

CHAPTER THREE

PROCUREMENT

When we began our work, 100 percent of Berkeley's school food was processed and/or from the commodity food system. Implementing our full vision—freshly prepared and wholesome, organic and sustainably produced, local, seasonal, and delicious meals—is a paradigm shift that takes time and effort to fully achieve. As a rule, we tried to procure foods that met these criteria as much possible. For example, if buying organic meat, dairy, or produce was too expensive in some cases, we opted for hormone- and antibiotic-free meat and dairy products, and herbicide- and pesticide-free fruits and vegetables. As we started to find out what we could buy at what prices, we developed new menus based on those price points.

Criteria for School Meal Programs:

- **Freshly prepared.** Get rid of all the processed foods that are filled with preservatives, additives, food coloring, and other chemicals.
- **Local.** The average meal travels 1,500 miles before it gets to our plates. Find local farmers, ranchers, and dairies from which to buy directly.
- **Seasonal.** Find foods that are at their peak of ripeness.
- **Organic or sustainably produced.** Buy from farms that take care of the land.
- **Delicious.** Send positive messages about eating to children and lure them into the cafeteria with delicious smells.

MAKING THE TRANSITION

We transitioned the system over two years. First, we asked for non-processed food (raw products), such as whole pieces of fruit instead of "fruit cups." Then we looked for local foods, which helped us bring in some smaller vendors and local farms. Then we went from precut foods to whole foods (i.e., precut broccoli to heads of broccoli that needed to be washed and cut). Our system couldn't handle all of those changes at once—for example, we had to train staff members in how to handle the new foods before the new foods were introduced into the system.

The district's current purchasing system now includes: 8 percent commodity foods; 25 percent fresh produce; 10 percent hormone-free or organic dairy products; 10 percent baked goods (bagels, breakfast muffins); 15 percent refrigerated foods (grass-fed hot dogs, hamburgers, etc.); 15 percent dry-storage foods (rice, beans, etc.) and chemicals (for cleaning); and 10 percent pre-prepared foods (salad dressings, local vendor-prepared meals such as burritos).

CREATING NEW RELATIONSHIPS

When we started the SLI, the Berkeley school district was purchasing from five major companies: Gold Star Foods, Crystal Dairy, Wonder bread, Ripple Riley Thomas, and Piranha Produce. Almost all of the food purchased was processed. The district served fresh fruit about two days a week and canned fruit at all other times. The first thing we did was set new criteria for what would be served.

We called all of our vendors and gave them 90 days to meet our new criteria. They sent us new lists of what we could purchase based on these criteria and their prices. If they could not meet our needs, we found new vendors.

At the same time, we had to create a BUSD school board policy that allowed us to buy perishable items without having to go to bid. USDA guidelines stipulated (before the 2008 Farm Bill) that districts could not give geographic preference for the origin of their foods. In December 2006, the board passed a policy for perishables and seasonal commodities:

Pursuant to the provisions of Education Code Section 29873, all vegetables, meats and dairy products are defined as perishable commodities under the meanings of that section. Bids for these items and seasonal commodities including canned goods may be accepted in written, oral, formal, or informal manner. Purchases may be made from bids or on the open market, whichever method appears to be the most advantageous to the District.

This policy allowed us to buy local foods without having to go through a lengthy bidding process. Over time, our existing contracts expired and we turned over 100 percent of our vendors.

In order to locate new vendors, the director of Nutrition Services went to the farmers' markets to speak directly with the farmers, and met with chefs at local restaurants to discover whom they were buying from—we were looking for restaurant-quality food, not institutional-quality food.

Criteria for Procurement

- Fresh fruits and vegetables, local and organic when possible, regional as a priority, and imported only if necessary (e.g., bananas)
- No trans fats or high-fructose corn syrup
- Minimal additives, preservatives, and coloring
- No fried foods
- Whole grains as much as possible
- Foods from small local companies as much as possible
- Hormone- and antibiotic-free meat and dairy products
- Herbicide- and pesticide-free fruits and vegetables

The goals of the SLI resonated with many food companies, and what might simply be distribution relationships in other locations became collaborations in Berkeley. For example, in order to serve BUSD, local distributors began stocking items they did not typically carry. Another small company tailored its production and growth to accommodate the school district's need to serve dressings made without corn syrup. We also found vendors who could make small deliveries to individual schools to enable them to manage salad bars daily.

Offering locally grown produce in Berkeley is relatively easy because California is a highly productive agricultural state. However, finding and working with smaller sustainable producers is often challenging.

In order to increase the percentage of purchases from the organic and sustainable farms within a 150-mile radius, Berkeley is working to identify crops that smaller farmers can grow in volume at a price that can be sustained by the school budget, and then slowly increase capacity in the coming years.

Securing new vendors has also helped us to strategically expand our offering of pre-prepared foods while maintaining the integrity of the SLI vision. For example, we wanted to ensure a variety of ethnic cuisines, but there were some foods we could not prepare, such as Mexican tamales. To obtain some of these foods, we partnered with a collective of small food companies working in a shared kitchen in San Francisco that serves as part of an entrepreneurial economic development incubator. FullBloom Baking Company of Newark, California, has served as a key partner in developing delicious and nutritious organic baked goods at an affordable price for both breakfast and lunch programs. Other local bakers replaced industrially produced breads with freshly baked goods and delivered the products themselves.

Procuring more foods that were local was dependent on creating new vendor relationships as well as on making policy changes.

Now about 30 percent of our produce is local or from within 150 miles of Berkeley. All of our produce is from a regional corridor from Washington to California.

We still do use some large suppliers like SYSCO. While they don't provide us with produce, they do supply items such as canned kidney, pinto, or black beans (as well as our cleaning chemicals and dispensing systems).

NAVIGATING COMMODITY ENTITLEMENTS

Before we launched the School Lunch Initiative, 12 to 15 percent of the district's food consisted of federal commodity entitlements. Typical purchases included corn dogs, grilled cheese sandwiches, pizza pockets, Tater Tots, and highly processed prepackaged burritos; the freezers were full of these products when we began. These and many other foods offered through the USDA's commodity entitlement program did not support a better lunch. However, budget realities made it unconscionable for us to turn away free entitlement dollars to purchase these foods. Because of this, it became necessary to navigate the commodity entitlement system to procure foods that were more consistent with our vision.

In researching what was available from the government, Berkeley found that in the "brown-box" or "raw" form, there were a fair number of offerings that could be used in the scratch-cooking program. Evaluations were made based on commercial value versus fair market value, and as a result Berkeley has focused heavily on cheese, poultry, tomato products, and some grains as the primary use of the commodity dollars. However, even brown-box products are not perfect.

For example, the district does not really "know" the food–who grew, handled, or slaughtered it–and none of the foods are organic or sustainably produced.

The reality of procuring brown-box products is complicated by the issue of how commodity foods are manufactured and purchased. A system that was once defined by government-issue white #10 cans with black letters has segued into a commercial-looking enterprise, complete with food shows, brokers, flashy labels, and manufacturer volume discounts. There has also been a recent emphasis on processed main-course items. This has coincided with the growth of group orders by school districts (also known as co-ops or consortiums) for their commodities. The co-ops increasingly lead to one-stop shopping, purchasing processed commodity foods from a distributor who also sells the schools commercial food and non-food products. As a result, the co-ops purchase fewer brown-box foods, which reduces the overall accessibility of raw commodities. BUSD used to purchase commodity foods from a co-op for Alameda County, but because of these issues, we opted out of this co-op and began ordering directly from the USDA. This allowed us to order more raw goods such as chicken and turkey.

The state of California still purchases and delivers raw commodities, but this also presents challenges. Because of truckload limits and less overall demand for items like cut raw chicken, the district's access to these items is challenged repeatedly by delayed deliveries, substituted products, or no products at all. In response to these and other difficulties with commodity foods, we concentrated our orders from the state on a more select group of items. For example, instead of buying processed pizza pockets, we bought bulk mozzarella cheese to make our own pizzas.

Compared to 12 to 15 percent when we began in 2005–06, federal commodity entitlements now make up 8 percent of the food we use.

PURCHASING AND ACCOUNTING

When we began our work with the School Lunch Initiative, there was no centralized ordering system. Site or satellite operators (staff at the schools) ordered what they thought they needed directly from vendors, and items shipped from the warehouse were not coordinated to maximize efficiency. Commodity foods were, and still are, ordered the previous year by the Nutrition Services director. A few things might have gone to the Central Kitchen warehouse to be shipped out, but mostly the commodity foods went directly to the schools. There was no accountability for what was used or how it was used, and some schools had enough food and supplies while others did not. Also, there was no way of tracking meal counts against purchases. However, under the SLI, with an increase in the use of fresh, perishable products and four times as many vendors, it was necessary to use better inventory and fiscal management tools to reduce inefficiencies and expenses.

Key system changes were established to improve procurement efficiencies and help manage the new scratch-cooking environment. Hiring key culinary professionals and establishing centralized purchasing, ordering, inventory, and food production established the basic needs for program sustainability. Now the purchaser/sous chef handles all orders and deliveries to the district for both the central warehouse and the 16 schools. We developed a system with purchasing software commonly used in larger-scale operations such as restaurants and catering businesses, where all purchase orders and receiving are tracked in one place. The school sites help by maintaining their inventory needs using a district weekly order faxed to the purchaser, and the resultant deliveries come either directly from the vendors or from the warehouse on scheduled days. By utilizing the new software, the Nutrition Services Department was also able to track its accounting in real time, making the whole district's ordering operation more organized. Prior to the system's installation, accounting in real time was not possible because of the sometimes 60-day lag time in the district to track actual purchases against an annual purchase order for each vendor.

The department also established a part-time accounting position to link the point-of-sale (POS) system's sales reports, the purchasing data, and the needs of the district's central accounting office. This has allowed the Nutrition Services Department to have enough information to continue to improve on the costs and benefits of the program.

With the hiring of an executive chef and a production sous chef, the procurement system now works seamlessly with the Central Kitchen. Good communication between the purchaser/sous chef and the executive chef is critical to efficient utilization of all products, timing for receiving and prep of bulk-produced items, and distribution of breakfast, snacks, and lunch. The scratch-cooking recipes and monthly menu tools are also part of the food service software, and the management from procurement to production, transport, and inventory are all found in one place.

What We Learned

We started slow but had ambitious goals. What set our efforts apart from most school lunch reform efforts is that we valued the farm-to-school connection from the start. Buying locally, seasonally, and sustainably was always part of the vision. But we learned that buying directly from farms is easier said than done. When we started, we didn't have a walk-in refrigerator to hold fresh produce. We couldn't buy directly from small farmers, because we had a limited transportation system and none of the farmers could deliver to our 16 schools. New systems needed to be put in place, new relationships needed to be created, and old contracts needed to end.

To afford better food, we had to be creative and more efficient. We started to buy centrally and in bulk. For example, buying milk in dispensers instead of individual containers enabled us to serve organic milk at lunch. We also changed our menus. Instead of serving cheap hamburgers often, we started to serve higher-quality, grass-fed hamburgers and hot dogs less often.

In addition, we had to create a whole new purchasing system and a way to keep track of our orders. We had to hire someone to manage the system and train the new purchaser in how to use it. The purchaser was a critical hire that allowed us to transition the system to new vendors and keep track of more contracts.

In the end, we found that buying locally, seasonally, and sustainably is possible with creativity and flexibility.

food for thought

- **Start small and think big.**
- **Create new systems and centralize others.**
- **Find a good accountant.**
- **Become partners with farmers.**
- **Create criteria for the kind of food you want to buy.**

CHAPTER FOUR

HUMAN RESOURCES

Most school districts lack the trained staff to cook freshly prepared meals. Berkeley's was no exception. BUSD had to hire new staff who could not only cook but also manage a whole new set of systems. Training was critical to our success, and this chapter describes the professional development program that helped us change the system.

RESTRUCTURING PERSONNEL

School districts often have a director of Nutrition Services who has a bachelor's degree in science or business, and who may also be a registered dietician. The number of employees in the Nutrition Services Department, whether it is self-operated or not, depends on the size of the district and the types and styles of meal service. In 2006, BUSD had 50 staff members in Nutrition Services, including 3 full-time positions (a director to oversee the department, an operations supervisor, and 2 administrative assistants), and many part-time positions (a kitchen operations supervisor, 16 site leaders [levels I, II, and III], 1 cook, and several food service assistants). All of the Nutrition Services staff members are unionized: managers belong to Local 21, and the other staff members belong to Local 39. All staff members receive benefits.

By 2008–09, the Nutrition Service Department had 90 employees (not all full time) working in 17 locations. As we shifted to scratch-cooked meals, we needed to hire more cooks as well as someone who could manage the new procurement system. We added 3 critical full-time positions: 1 executive chef and 2 sous chefs, including one who would serve as the purchaser.

The part-time staff increased as the number of meals we began to serve increased.

At each of the elementary schools, a food service assistant was hired to help manage breakfast and the salad bar for three hours a day. In addition, a dishwasher and an additional food service assistant were hired at the Central Kitchen to manage the increased production. Finally, a financial consultant was hired to help track the budget and participation rates, and to provide real-time accounting services. (Previously, the Nutrition Services Department did not have any reliable cost or participation-rate data.)

The addition of a new director, executive chef, and two sous chefs meant challenging the unions and merit commission to recognize how these highly skilled professionals, historically not part of a typical district, fit in in relation to existing job classifications. Hiring these professionals in addition to a manager of Nutrition Services is a recent trend in many districts, including San Diego, Los Angeles, and New York City. Job descriptions and hiring processes had to be reviewed and approved by the merit commission in order to establish the new positions within the existing system. In the new model, the executive chef typically has a background of 10 or more years of experience running large dining properties.

Other staff changes included the transition of the 30 "garden and kitchen educators" in the district from Curriculum Services to Nutrition Services. These mostly part-time educators are funded as part of the state program Network for a Healthy California. The rationale behind the move was to better link kitchen and garden education to the changes taking place in the lunchroom. For example, BUSD's monthly "Harvest of the Month" program introduces students to a fruit or vegetable in season that month, and the same fruit or vegetable is featured as part of the lunchroom's menu.

BUILDING A COMMON VISION

With a new team in place in 2007, including an executive chef and two sous chefs, we began to bring people together. At the end of the first year, the Nutrition Services Department held a staff retreat with its entire team.

In the shift from reheat cooking to scratch cooking, the Nutrition Services Department faced the challenge of bringing its diverse staff together as a team; the culinary professionals and part-time food service workers and kitchen/garden educators needed to find their

common ground. Most of the food service staff rarely interacted with the kitchen/garden educators—even though they worked at the same schools—and the department had never had a chef at its helm.

The two-day retreat opened the lines of communication and built a common vision for the new meal program. As part of the retreat, food service staff and kitchen/garden educators were given a set of ingredients and asked to create a dish. Afterward, staff members talked about what it was like to work together as a team and what the frustrations were. As a result of the experience, staff members collectively created a vision statement that represented the School Lunch Initiative and what they hoped to achieve:

We seek to teach every child to grow, prepare, and eat nourishing, delicious, and sustainably grown food; to empower students to make healthy food choices; and to educate students about the connection between these choices and the health of their families, communities, and planet.

TRAINING AND DEVELOPMENT

Shifting to scratch cooking, especially when it involves using seasonal, local, and sustainably grown food, requires training and shifting employee consciousness.

> *Training should cover the technical aspects of food service, such as food safety and handling, as well as the complex arena of customer service.*

As part of their SLI training, the BUSD staff received reading materials that included a nutrition guide, books about current efforts to change school food, and a manual developed specifically for Berkeley's school system and updated annually to help with day-to-day management of new tasks. Some of the key areas of SLI training included:

- **Cooking and Tasting.** Without knowledge of food preparation, it was virtually impossible to reorganize the system to make from-scratch meals. The Nutrition Services Department held staff trainings on knife skills, food identification, and eating seasonally—and even held a tasting session where food service workers learned to differentiate between varieties of vinegars, oils, and salts.

- **Food Safety 101.** In addition to basic kitchen skills, the staff needed to learn about food safety, from how to handle raw chicken to how to store fresh broccoli. In the past, food service staff primarily handled prepared and packaged food and no fresh perishables except milk. Under the SLI, they learned to work with fresh/raw products and were trained in refrigeration and safe handling methods through ServSafe, a national food safety training program.

- **Wellness and Nutrition.** Making the connection between food and wellness is critical to changing school lunch. The Nutrition Services Department held an initial session on nutrition with staff from Kaiser Permanente and developed a second partnership focused on overall wellness with the Robert C. and Veronica Atkins Center for Weight and Health. One of its wellness coordinators offered an hour-long bimonthly workshop for food service staff at the regular staff meeting. The first one was held in September 2007 and focused on the question "What is wellness and what's in it for me?" Other wellness strategies included a pedometer challenge, a newsletter, and healthy advice for staff printed on a note with their paychecks.

- **School to Farm.** The School-to-Farm training component was multipronged, introducing food service staff in several ways to the connection between school food and farm bounty. In fall 2007, all of the BUSD food service staff went to the local farmers' market and were given $20 each to buy as much ripe local produce as they could. Staff members were asked to take home their purchases and describe what they had cooked the next day.

In addition, the Ecology Center, a local nonprofit that runs the farmers' markets, made a presentation to the food service staff about the center's efforts to improve access to healthy fruits and vegetables in some Berkeley neighborhoods where a lack of such access is an obstacle to healthy eating habits.

Food service staff also met and talked with Judith Redmon, the farmer and founder of Full Belly Farm, provider of produce to both the Berkeley school district and

local restaurants like Chez Panisse. In August 2007, all staff visited Perry Farms to get a tactile understanding of food sources and how they relate to what gets served to Berkeley public school children. It was the first time many of the food service workers had been to a farm.

- **Waste Management: From Compost to Recycling.** A longtime Berkeley advocate for recycling in the public schools facilitated a discussion about recycling and what could be done in the school kitchens and cafeterias. One of the garden managers for the school district also led a composting workshop for all Nutrition Services staff, explaining what composting is, why we should compost, and how to do it.

- **Site Management and Inventory Control.** With the addition of Universal Breakfast, salad bars, and the use of more fresh produce and raw products, food service staff members were asked to handle a fresh-food inventory system at their sites. This meant being accountable for orders made through a new centralized purchasing system, checking and managing deliveries of fresh products, both from vendors and from the district warehouse, and making weekly inventory accounts and orders with the purchasing agent. Weekly order guides were developed for each site. Also critical to staff training were lessons on counting inventory and managing cold, freezer, and dry storage areas, and achieving an understanding of the link between the menu and the orders.

- **Connecting to the Garden/Kitchen Classes.** Because the garden and kitchen educators in the district are part of the Nutrition Services Department, they have had access to all of the training described earlier as well as to special sessions in gardening, cooking, curriculum integration/development, and classroom management. The Chez Panisse Foundation organized two kitchen trainings at the Edible Schoolyard aimed specifically at garden/kitchen educators. The first included a discussion about common issues facing educators, such as sharing space, working with carts/hot plates, classroom management, shopping, and how to improve classroom aesthetics with no budget. The second session was dedicated to classroom management, safety, and logistics in kitchen classrooms. Additionally, garden educators had sessions with master gardeners at the Edible Schoolyard that included lessons on pruning, weeding, and planting.

- **Customer Service.** Front-of-the-house training is an important aspect of school food service. How to interact with kids and how to encourage them to eat the "new" food is critical. The staff members serving the food are essentially the "front line" of school food programs, and paying particular attention to those operators' roles as "deliverers of the message" is critical to program growth. We provided several trainings to help food service staff realize how important their role is in helping children make good choices about their food.

Essential Staff Workshops

- Cooking seasonally
- Food safety
- Wellness and nutrition
- Farm and farmers' market visits
- Waste management: composting and recycling
- Site management and inventory control
- Gardening and cooking with children
- Customer service

One of the biggest challenges we have faced is the limited amount of money and time allotted to staff development.

In a typical school district, professional development is not a given for Nutrition Services staff.

Often falling under the auspices of the business office or facilities, the food service staff are rarely given the opportunity to learn new skills or broaden existing experience through learning opportunities. In Berkeley, only five days a year are budgeted for professional development for food service upper management and site operators. Site operators meet bimonthly to reinforce earlier training and to enhance buy-in to the new changes. The additional workers out in the field, such as food service assistants, have only rare opportunities for additional training, so in their case regular site visits and keen observation and communication about a worker's skills or knowledge base is key to keeping a learning environment alive throughout the district.

What We Learned

Nothing is more important than bringing staff on board. Having a common vision and providing ways for staff to enhance their skills and feel good about what they do are critical. The little details matter: knowing how to handle raw chicken, how much salt to use and what kind of salt to buy, how to label fresh produce, and feeling part of a team. Wellness education was an important component of our professional development strategy, as was connecting staff to food through farm trips, farmers' markets, and cooking classes.

While you have to invest in your existing staff, you will also need new staff. The district must add positions for experienced culinary professionals who possess the knowledge needed for large-volume scratch cooking and who can train the existing staff in how to continue to grow within the department.

Trying to change the district food service structure also meant changing job descriptions and finding appropriate pay scales relative to private-sector jobs. Most districts have a process of merit review and salary comparisons, making these additions particularly difficult. Because of this, it is important to negotiate with unions to promote professional development and ease fears about job security. Negotiations should not be a battle but an opportunity to convince unions that higher skill sets mean greater opportunities and higher pay for their members.

Ultimately, we need to grow a new cadre of professional cooks in schools. Cooking for the pickiest population in America, kids, means reeducating culinary schools and other venues where young chefs grow, so they understand there is another sector of the industry available to them. Cooking to make a difference is a powerful concept, but we do need the opportunity to train chefs in the specifics of school food and how to transform a district.

food for thought

- **Be ready to hire new staff and rewrite job descriptions.**
- **Provide training in the most basic cooking techniques.**
- **Connect staff to farms and really fresh food.**
- **Work with unions rather than battle them.**
- **Build a real team.**

CONCLUSION

There is a Russian proverb that goes, "If you dance with a bear, you can't stop when you get tired." Changing school lunch is a bit like dancing with a bear. We didn't know how hard it would be to change one simple meal in the public schools, but we refused to let the obstacles we faced deter us. Our work in Berkeley proves that serving nutritious, delicious, fresh food in our public schools is possible. Some might argue that what we did was achievable because Berkeley has many advantages: access to many farms, a long growing season, a community that has tirelessly fought to change school lunch, and funders who have supported this work over many years. Regardless, our story must become the norm rather than the exception; the health of the planet and our children depends on it. Now that we have started moving forward, we have the responsibility to help others begin to move forward as well. The challenge is to find the political will, the public financing, and the leadership to make what we have done possible in every school district in America. We believe it is possible, and we are committed to making that possibility a reality within the next decade. Shall we dance?

NOTES

1. http://www.ci.berkeley.ca.us/ContentDisplay.aspx?id=7164
2. http://www.ed-data.k12.ca.us
3. BUSD Nutrition Services Department
4. National School Lunch Program website, www.fns.usda.gov
5. 2008–09 CNP Reimbursement Rates, California Department of Education website, www.cde.ca.gov/ls/nu/rs/rates0809.asp

A WORD OF GRATITUDE

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ABOUT THE CHEZ PANISSE FOUNDATION

Founded by Alice Waters in 1996, the Chez Panisse Foundation develops and supports educational programs that use food traditions to teach, nurture, and empower young people. The Foundation envisions a curriculum, integrated with the school lunch service, in which growing, cooking, and sharing food at the table gives students the knowledge and values to build a humane and sustainable future.

For a list of our publications and resources, please visit our website at www.chezpanissefoundation.org.

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