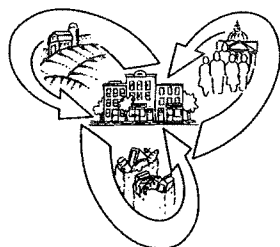


Healthy Farms, Healthy Kids: Evaluating the Barriers and Opportunities for Farm-to-School Programs



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Executive Summary

Healthy Farms, Healthy Kids: Evaluating the Barriers and Opportunities for Farm-to-School Programs explores in-depth the opportunities and barriers related to school food services purchasing food from local farmers. These issues have significance both for small farmers and the local farm economies as well as for school children and the broader school community.

Local and regional farmers require profitable and stable markets for their products. Prices that farmers receive for many commodities have dropped appreciably in recent years. Globalization and concentration in agri-business have also reduced access to markets, and resulted in unfair prices offered to family farmers. In schools, an ever-increasing number of children are overweight, as a result of insufficient physical activity and increased consumption of high caloric junk foods. Anecdotal evidence has indicated that adult-onset diabetes, rarely found in children until recently, has become more widespread. Schools have also reduced in importance the nutritional mission of the school meals programs in favor of practices that bolster the bottom line. Food services, in a financial bind because of reduced student participation, have incorporated commercial practices, such as branding and contracting with fast food businesses, to achieve better buy-in from students. School districts, hungry for cash for extra-curricular and sports programs, have also signed contracts with soft drink corporations to promote their products on campus.

These problems have given rise to a new “healthy farms, healthy schools” or “farm-to-school” approach. The Report highlights case studies of seven farm-to-school programs in California, New York City, Connecticut, Florida, and North Carolina. It also describes on-going efforts in New York, Kentucky, Iowa, and Vermont to start new projects. Lessons learned from these case studies that can serve as general guidelines for future efforts include:

- Forge partnerships with local farm organizations, farmers’ markets, and other individuals with similar goals of supporting local agriculture.
- Cultivate parents and community members to act as advocates for the program. Convince the school district to set up an advisory body of parents.
- Build support for the program with school district officials, the food service director, and other policymakers.
- Engage students by listening to their preferences, educating them about the importance of their food decisions, and providing them with the opportunities to make healthy choices. Build collaborative relationships with school food service staff, drawing on their experience and expertise while understanding their economic and

administrative constraints. Focus on the long-term sustainability of the project.

- Celebrate successes and publicize accomplishments.

The Report also examines federal policies and programs related to school meals, nutrition, market development and farmer cooperatives. It finds that government efforts to support farm-to-school projects are significant in legitimizing this arrangement, but are uncoordinated and have not significantly addressed the potential policy barriers and opportunities. Major policy recommendations include:

- Establishment of a fund that would provide districts serving school meals with locally grown foods with an additional five to ten cents reimbursement.
- Enactment of a policy statement by USDA and Congress that encourages school districts to purchase from local family farmers.
- Creation of a seed grant fund as part of the Community Food Projects program that would fund school districts and non-profits to undertake farm-to-school projects.
- Expansion of the USDA Small Farm/School Meals program. This augmentation should be connected to increased efforts and funding for the Department of Defense Supply Center to broker the purchase of local food for schools in a greater number of states.
- Expansion of federal funding for local food system infrastructure through the creation of a separate grants program.

The Report concludes that direct farm-to-school food service sales provide substantial benefits to participating farmers by developing new markets and as a source of additional income. All students, especially those from lower income families who rely on free or reduced price school meals, can benefit from improved nutritional quality and taste, as well as from related educational programs on local agriculture, nutrition, and food systems. Nevertheless, substantial barriers exist for farm-to-school programs, including additional food and labor costs, and administrative and logistical problems. While farm-to-school projects are in their infancy, they hold substantial potential as part of an integrated approach to decommercialize education, improve the health of youth, and enhance and sustain local food systems.

SECTION I

FOOD AND SCHOOLS: BACKGROUND TO THE ISSUES

Picture this: It's lunchtime for 500 students at 59th Street School in South Central Los Angeles, one of 430 elementary schools in the Los Angeles Unified School District, the second largest in the country. Only about 25% of the students decide to select the usual hot meal of corn dogs, pizza, or pepperoni calzones. Incredibly, the other 75% of the students line up for the latest innovation in school cafeteria food, a Farmers' Market Fruit and Salad Bar. Over in the Santa Monica school district, where the Farmers' Market Salad Bar program is now in its third year, students at all of the elementary schools, middle schools, and high schools in the district now have the choice of a farmers' market salad bar. In Florida, a cooperative of local farmers provides collard greens to several North Florida school districts. In Hartford, Connecticut, students have the opportunity to eat regionally grown fruit that is seasonal. In Kentucky, an Asian farmer supplies a local school with his locally-grown vegetables that might otherwise be found in countries on the other side of the globe. And in Berkeley, California, the school district gears up to implement a broad-based school-food policy that places the concept of making local, organically grown food in school cafeterias the centerpiece of its new program.

But in many other school districts around the country, food service programs are forced to take a quite different path. Too often, food service programs are primarily operated to generate sufficient revenue to cover costs and are treated as peripheral to the school mission. By keeping the cafeteria separated from the classroom and by evaluating food services primarily by economic rather than nutrition objectives, school districts create a food-nutrition-learning disconnect, a disconnect that all too often works to the disadvantage of local farmers.

But can a different kind of school-food relationship be established; one that emphasizes support for local farmers while enhancing the quality and value of the school lunch meal? This report, Healthy Farms, Healthy Kids, is designed to answer whether such a new relationship can be extended in school districts throughout the country.

The School-Food Relationship

To understand the school-food relationship, one needs to begin with the National School Lunch Program (NSLP). After surviving attempts by Congress to block grant it in 1995-1996, the NSLP, America's venerable child

nutrition program, continues to feed 27 million kids day in day out during the school year. In 99% of public schools, the NSLP operates within rigorous financial constraints. With low reimbursement rates per meal, high labor costs, and crumbling physical plants, school food service administrators have their options limited in terms of the types of food they can provide to students. The school cafeteria has become a “nutrient delivery system,” in the words of one activist, serving the right proportions of vitamins, fats, and calories, with insufficient regard for the freshness or quality of the meals served. In many districts, school meals no longer are made from scratch by the beloved “kitchen ladies.” Instead, they come ready to eat, using highly processed foods, more a product of a factory than a kitchen. In other cases, schools contract their lunch programs to fast food chains, such as Taco Bell and Pizza Hut. The school cafeteria, with its quest for efficiency and affordability, has become another outlet for the industrial agricultural system.

In an increasing number of schools, the nutritional mission of the food service department is under challenge, as administrators focus on revenue generation. With inadequate state and federal funding for education (in California due in part to Proposition 13), extra-curricular programs such as sports and band are often strapped for funds. School food services are called upon to generate revenue for them through the sale of highly profitable, but often unhealthy “a la carte” items, unfettered by the nutritional standards of the NSLP, and by highly lucrative “pouring rights,” or contracts made with soft drink vendors for exclusive sale of their products on campuses.

This situation becomes especially problematic in light of a dramatic rise in childhood obesity and diabetes over the past few years. While schools are under pressure to meet numerous community and educational goals, they also have a public health responsibility, as a crucial influence over children’s eating habits and their nutritional status. For many low-income children in particular, school breakfast and lunch are the only square meals they eat all day.

Yet the school lunch program has the potential to be much more than just a system for feeding the requisite nutrients to children. The school cafeteria can be integrated into the classroom, with food providing an avenue for education on a wide variety of topics. Many teachers have learned the incredible potential of school gardens as a fun educational vehicle for virtually every subject area. In Santa Fe, NM, the *Cooking with Kids* program combines eating with education about diverse cultures. As a public institution, funded with local taxpayer dollars, schools have a unique responsibility to both the students and the larger community they serve. They build a sense of community, or social capital, by fostering linkages between families, businesses, and other local institutions. Direct farm-to-school sales, in which students come to know “who their farmer is,”

and where their food is produced, can play an important role in transforming the school food environment. Farm-to-school programs seek to address a number of distinct, but related issues, including the decline of small farms in the United States, nutrition-related health problems in children, and the trend towards branding and contracting by private food service companies. They can be mutually beneficial for all parties involved. For *food service departments*, farm-to-school programs can be part of a fiscally sound meal program with the potential to offer high quality, fresh from the field products. For *students*, they can provide increased access to fresh produce, a hands-on, experiential learning opportunity, a link between the cafeteria and the school garden and nutrition education, and a foundation for building life-long dietary choices. For struggling independent *family farmers*, they can be a new market and an additional source of income, a meaningful way to be a part of the local community, and an outlet to educate future consumers and potential farmers about agriculture.

This section of the Report explores the context in which farm-to-school programs operate. It delves into the crisis small farmers find themselves in today. It delineates the epidemic of diabetes and obesity in today's youth, and some of the potential causes of this situation. The section also includes an analysis of the trends in today's school food services, including pouring rights and competitive foods. It concludes with a discussion of the broader conceptual framework in which farm-to-school programs operate.

Family Farming

Family farming in the US is in crisis. Of all occupations in America, farming is facing the greatest decline (US Department of Labor, Occupational Outlook Quarterly). It is not even listed in the 2000 census as an occupation. Between 1993 and 1997, the number of mid-sized family farms dropped by 74,440 (USDA National Agricultural Statistics Service, "Farm and Land in Farms"). African-American farmers have been hardest hit by farm failure, and are twice as likely to go out of business than White farmers. In 1920, there were 925,000 Black-operated farms. Today there are fewer than 18,500 (US Commission on Civil Rights; USDA National Agricultural Statistics Service "Quick Facts"). Farmers are on the whole a graying breed, much older than the general population. Nearly half of all farmers are over age 55, with only 8% under 35 (USDA National Agricultural Statistics Service, 1997 Census of Agriculture).

Similarly, farm income has been in decline. The farmer share of every dollar spent on food has dropped from 41 cents in 1950 to 20 cents in 1999, with the rest going to brokers, processors, retailers, and for transportation, packaging, and marketing. Because prices are so low — corn, wheat, and soybean prices are 35 to 50% lower now than they were in 1985 — most farmers rely on the

income of a family member working off-farm to make ends meet. Eighty-eight per cent of the average farm operator's household income comes from off-the-farm sources (Dittrich).

The reasons for this dramatic decline are complex, and vary by commodity. Nevertheless, a few common themes emerge.

Farmers have fewer and fewer places to sell their products at a fair price. As a handful of companies gain control over the nation's major commodity markets, farmers have little option but to sell their crops at the prices set by these virtual monopolies. For example, four meatpacking companies control 79% of cattle slaughter in the nation, and four companies control 49% of the broiler production (Heffernan). Many farmers can only ensure themselves a market for their crops by becoming contractors for major processors at prices that do not provide a fair return for their labor. In the livestock industry for example, a few years ago, processors were paying \$8 for hogs whose production costs were in the \$30 to \$40 range. In addition small and medium sized family farmers must compete with companies that have access to far more resources and can afford to run losses for a period of time in order to drive the competition out of business.

Second, farmers' ability to rely on the federal government as a safety net of last resort has been diminished by the 1996 Farm Bill, commonly referred to as the "Freedom to Farm Act," which eliminated deficiency payments for certain commodities. These payments guaranteed that no matter how low prices on the open market sunk, farmers would be guaranteed a certain price for their crop. With the drop in farmgate prices for various commodities, many farmers took a severe loss without the federal safety net in place.

Finally, globalization also bodes poorly for US produce growers. An increasing reliance on imports with lower production costs has negatively impacted and potentially could harm many domestic growers in the future. Imports of apples from China have affected Washington state apple growers, and California's olive industry is in danger of extinction from Spanish and Moroccan imports (Fulmer; Iritani). Domestic avocado and citrus industries may also be damaged by imports from Argentina and Mexico.

Importance of Farm-to-School Sales for Family Farmers

Given these difficulties family farmers face with gaining access to markets with fair prices for their crops, schools can present an important opportunity for them. Farm-to-school projects across the country universally seek to involve independent farmers of various types: cooperatives, small farmers, family

farmers, organic farmers, and local/state/regional farmers. While one could debate about strict definitions for each of these terms, the overall thrust of these programs is supporting agriculture that is more localized and sustainable than large-scale, chemical intensive, industrial-style agriculture.

USDA has recognized the importance of farm-to-school projects for the well-being of family farmers. Its Small Farms/School Meals Initiative (described in more detail in Section 3) has actively sought to link small farmers with school food services in various Southern states. This program was endorsed by the National Commission on Small Farms whose 1998 report, *A Time to Act*, congratulated the Department for “pursuing marketing opportunities for small farms to supply local school lunch programs.” The Commission urged research and outreach to replicate farm-to-school efforts nationally (USDA National Commission on Small Farms).

Obesity and Health

While farmers’ wallets are getting slimmer, children nationwide are experiencing an epidemic of obesity. From 1976 to 1980, National Center for Health Statistics (NCHS) figures show that 6.5% of children from age 6 to 11 were considered overweight. By 1990 to 1994, that figure had doubled to 11.4%. Latino and African-Americans and their children suffer from higher than average rates of obesity, with 17.7% of Mexican-American children overweight, according to the 1990-94 NCHS study (Kolata). Obesity puts children at risk for other diseases, including hypertension, adult obesity, cancer, heart disease, and strokes.

Diabetes, for which obesity is a primary risk factor, has also increased in number and severity among children in recent years. Although there have not been any major national studies documenting the rise of diabetes in children, a number of smaller studies and anecdotal evidence have indicated that Type 2, or adult onset, diabetes has tripled among children in recent years. Type 2 diabetes is a progressively damaging disease, which can cause kidney failure, blindness, and poor circulation, which can result in amputation (Thompson).

The reasons for this epidemic are varied. One factor most experts point to is lowered levels of exercise. This trend away from physical activity can be attributed to an unsafe environment, related to the fear of street crime in urban communities, and poor urban planning in urban and suburban neighborhoods, in which cars are prioritized over pedestrians and cyclists. Electronic entertainment in the form of video and computer games, the Internet, television and videos all encourage children to stay indoors rather than go outside and play. Or as Dr. Richard Strauss from the Robert Wood Johnson School of Medicine in New Jersey noted, “Being inside used to be boring. Now it’s exciting”

(Kolata). Researchers at the Johns Hopkins University have found a correlation between the amount of television watched and rates of obesity among Mexican-Americans and Blacks, who watch more TV on average than White children (“Demographics of Obesity”).

Television has a negative effect on children’s health beyond the fact that it prompts less physical activity. The average child views 10,000 food ads per year, most of which are for candy, fast food, sugary cereals, soft drinks and other junk food (“Demographics of Obesity”). This marketing campaign, combined with trends in the fast food and convenience market industries toward supersizing, encourages the consumption of excess calories and fat.

Those most affected by obesity and diabetes are minority and possibly lower income children— those who are most dependent on school meals. With schools providing one or two meals daily to millions of children, they have an important role to play in shaping children’s eating habits. While there have been powerful forces, such as the fast food industry, influencing the composition of the school lunch menu, “school-based interventions that can develop alternative choices represent important opportunities to promote a healthier diet both in relation to school meals and the overall diet of school-age children.” As Kennedy and Goldberg argue in their 1995 Nutrition Reviews article “What are American Children Eating: Implications for Public Policy” with more than 95% of children enrolled in school and eating one or two school meals a day, “the cafeteria and classroom can serve as a learning laboratory for promoting sound dietary habits...” (Kennedy and Goldberg).

Although more research needs to be conducted on whether school meals that incorporate farm fresh products are healthier than “regular” meals, farm-to-school programs can play a central role in fostering better health among students. With produce acquired through conventional brokerage channels often flavorless, wilted or old, children can be reluctant to eat their vegetables. Farm fresh produce, on the other hand, can be more flavorful and appealing to children. Similarly, by linking the cafeteria to nutrition education in the classroom, farm visits and hands-on experiences growing food in school gardens, schools can incorporate an experiential learning approach with the potential to transform children’s eating habits.

School Food Environment

The original nutritional purpose of the school lunch program is under assault from a number of forces. School boards are looking to food services to turn a profit to fund extra-curricular programs, through the sale of foods that don’t meet USDA nutritional standards. Fast food and soft drink companies are

seeking out school markets and offering lucrative contracts for exclusive rights. Through their purchases, students are rewarding schools for the sale of soft drinks, junk foods, and other branded foods on campus. Financial constraints and a move toward reducing labor costs have resulted in the reduction of kitchen facilities across campuses nationwide. As a result the school lunch program is changing dramatically. Following is a brief exploration of some of the key issues in the school food environment.

Fast food, Pouring Rights and A la Carte Items

The educational and nutritional mission of the school food service department is being devalued with respect to the business aspects of running a profitable food service. In an effort to generate revenue, many schools are offering food items separate from the standard school meals. As these “a la carte” items (also labeled “competitive foods” as they compete with the main school meal) such as french fries, ice cream, pizza, soda, and other snacks are not subsidized by the government, USDA has allowed them to be exempt from federal nutritional guidelines for school meals. Many school food service directors are concerned with this trend, as competitive foods are often higher in fat, sugar and sodium than is desirable. They also fear that competitive foods will undermine the profitability of the School Lunch Program, which depends on an adequate sales volume to meet costs (Nestle). Competitive foods are permitted during lunch time in 2/3 of schools according to a national survey (US General Accounting Office).

As students demand foods that more closely resemble what they eat outside the school cafeteria, school food service departments are reinventing themselves. They are creating in-house brands, food carts and food courts, and contracting out to fast food restaurants to meet consumer demand and earn an adequate revenue stream. As Marion Nestle, professor in the Department of Nutrition and Food Studies at New York University, points out, “As part of such efforts, they have sought ways to improve the image of school meals, increase demands for healthier food choices, and involve students in decisions about how to make school meals more appealing. While all of these actions make excellent sense from a business standpoint, only some of them reinforce the schools’ educational mission” (Nestle).

Unhealthy a la carte foods are not allowed in all schools however. California is now considering legislation that would hold a la carte items to the same nutritional standards faced by government-reimbursed school meals. West Virginia already has such legislation on the books. School food services are able to support themselves because their labor costs are integrated into the state’s school funding formula. According to Mary Kay Harrison, executive

director of the WV Office of Child Nutrition, the philosophy of the state board of education has been that good nutrition is part of the educational environment (“Schools’ Choice: Healthy Lunch Or Healthy Sales?”).

While schools are selling a la carte items in competition with the primary school meal, they are also contracting out school meals to fast food companies. As of 1995-1996, there were fast food franchise outlets in 13% of the nation’s schools up from 2% in 1990-1991. Three quarters of these contracts were with Taco Bell, Pizza Hut, Subway, and Domino’s Pizza. (US General Accounting Office). The American School Food Service Association estimated that by 1997 about 30% of the nation’s 23,000 public high schools sold fast food (www.findarticles.com). Fast food companies have established these relationships because they present a “unique marketing opportunity” according to one industry brochure, to reach students daily in a \$16 billion market (Levine).

The sales of these fast food items have proven popular with students, who associate brand names with quality. Branding has presented food services with a seal of approval, crucial in a context in which children are dubious about the quality of the food served. Robert Gottlieb, Professor of Environmental Studies at Occidental College contends that,

“Meal planning for food service directors remains driven by costs and revenues (with branding providing a source of profits in terms of contracts as well as profit on foods reimbursed). At the same time, food service managers have become concerned with the popularity of the items offered in relation to what they assume the students are willing to eat, given the poor reputation of the quality of the existing cafeteria food and the link of revenues to participation. It becomes clear then why pizza and french fries are often defined as a winner. The concept of “branding” itself - putting a name and a logo on a product that will be familiar with students – ultimately emerges as the governing metaphor in how food services operates” (Environmentalism Unbound).

Despite the support among students and school food service directors, the incorporation of fast food in the school-food environment is not without its critics. Advocacy groups such as the Center for Science in the Public Interest and the Center for Commercial Free Public Education have expressed their concerns about the commercialization of the school food environment and its potential impact on shaping children’s eating habits.

Commercialization of the school food environment can also be seen through “pouring rights” contracts, those made between schools and soft drink com-

panies for the exclusive sale of their product line. Soft drinks at school are widespread. There are an estimated 20,000 vending machines in schools nationwide, according to the National Automatic Merchandising Association. These machines generated an estimated \$750 million for schools in 1997, based on figures from the trade journal *Vending Times* (www.nyssba.org). The Center for Commercial-Free Public Education, an advocacy organization in Oakland, CA, reports that more than 100 districts or schools have signed exclusive contracts with Coke or Pepsi at a cost of more than \$100 million to the companies, and that the number of such contracts doubled just in the last half of 1999 (Center for Commercial-Free Public Education *in* Nestle). Some examples of contracts made in recent years include:

- Coke is providing the Liverpool, NY School District with \$1.53 million over 10 years to help the school refurbish its sports complex.
- In Niskayuna, NY Pepsi agreed to give the school district \$50,000 per year over 10 years along with a 35% commission based on the amount of drinks sold in exchange for placing their products in vending machines and the high school cafeteria. Pepsi will also provide software and promotional items such as gym bags (www.myshortpencil.com/pouringrights.htm).
- Coke committed to a 10 year \$8 million contract with a 53-school Colorado district that included cash bonuses for exceeding sales targets and incentives such as a new car for a senior with perfect attendance and high grades (Hays *in* Nestle).

Supports of such contracts contend that no one is forcing the kids to purchase these soft drinks, and that the schools badly need the funding. Nutritionists, on the other hand, argue that over-consumption of soft drinks pose serious health risks. Tooth decay, obesity, and bone fractures have been related to soft drink consumption (Nestle). Today's youth is ingesting soft drinks at a record pace. Girls age 12 to 19 in 1994-1995 drank an average of 12 ounces per day (160 calories), and boys of the same age group 21 ounces/daily (280 calories) (Wilson JWS, Enns CW, Goldman JD, et al; www.barc.usda.gov *in* Nestle). Nutritionists are concerned that soft drink consumption at such rates replaces consumption of more nutritious beverages, such as milk and orange juice, and when added to a normal diet could result in obesity.

While some school districts such as Sacramento, CA and Madison, WI are rejecting pouring rights contracts as against the best interests of their students, for other districts facing tough financial times, the lure of easy money is too hard to resist. With these decisions being made at the school board level, many school food service directors are conscious of the problematic nature of pour-

ing rights. Marion Nestle reports that a 1999 conference of New York State school food service directors, many participants were “deeply troubled by a broad range of issues related to the length, exclusivity, and financial terms of the contracts, to the lack of adequate federal oversight of foods sold in competition with school meals, and to the widespread failure of schools to enforce even the weak rules that do exist. They also viewed the contracts as threatening the economic viability of school food service operations, the integrity of the schools’ educational mission, and—not least—the children’s health.”

Farm-to-School Projects in a Broader Context

Farm-to-school projects fit squarely within the broader conceptual framework of community food security. Community food security (CFS), a relatively recent concept linked to anti-hunger, sustainable agriculture and community development goals, refers to a systems approach to addressing the nation’s food and farming problems. It is a goal (attaining a food secure community), a method for project implementation, and a framework for organizing. The community food security movement has brought together diverse constituencies such as organic farmers, food bankers, environmentalists, and nutritionists into a single coalition that strives to create a more ecological and socially just food system for producers and consumers. A few basic principles of community food security are described below:

Meeting the food needs of low-income individuals. The CFS approach seeks to ensure that all persons have access to affordable, nutritious, and culturally appropriate food at all times. Low-income individuals are often the most vulnerable and suffer most from food system inequities, be they hunger, access to supermarkets or diet-related diseases.

Promoting food self-reliance. CFS practitioners develop programs that build individuals’ ability to purchase, acquire or grow foods. These programs focus on creating jobs, fostering cooking, business, and gardening skills, improving access to healthy foods, and nutrition education.

Prevention-orientation and planning focus. Borrowing from the public health field, community food security takes a prevention approach to the issues of hunger and diet-related diseases. CFS advocates recognize that many of these problems remain intractable, and that long-term holistic strategies must be undertaken. In this context, the need for food security planning becomes paramount.

Community orientation. Many food security issues, such as access to food, play out at the community level. CFS strategies focus on building community (as well as household) resources to and social capital to address these issues.

For example, CFS programs seek to increase community control and ownership of food production and distribution resources.

Systems approach. The CFS concept recognizes that many of the food, environmental, and farming problems the world faces are systemic in nature. The mainstream food system has numerous by-products and inequities by its very nature. CFS advocates seek to create a new type of food system, based on social justice, environmental sustainability, and economic viability. CFS projects are similarly systemic in nature, seeking to address multiple problems, create multiple benefits, and incorporate numerous sectors of the food system.

Local agriculture. Food security is predicated upon a stable agricultural supply. While the industrial agricultural model has been very successful in meeting this goal, it has also generated numerous externalities, including the demise of the family farm, pollution, and a prioritization of profits over health. In doing so, it has shown itself not to be sustainable in the long term. An alternative agricultural paradigm will need to emerge (and in fact exists through farmers' markets and community supported agriculture), one that is more responsive to the needs of communities and the environment. Local agriculture not only reduces waste associated with transportation costs (the average food item travels 1300 miles from field to plate), but also fosters local economic development, and increased responsiveness to community needs. Purchasing locally grown foods provides consumers with tastier foods, which may stimulate increased consumption of healthy fruits and vegetables.

As will be shown in more detail in the next section, farm-to-school programs share many of these goals and strategies. They:

- Address multiple problems and provide multiple benefits;
- Improve children's access to nutritious food, especially for lower income kids who are reliant on the school lunch program;
- Employ prevention-oriented strategies to obesity and other diet-related diseases through fostering good dietary habits;
- Support local agriculture and family farmers;
- Incorporate a food systems approach;
- Create opportunities for a better understanding of agriculture, and a healthier relationship to food.

As the students line up to select their salad bar items at 59th Street school, they find a veritable feast of choices and opportunities for tasty and healthy food: spinach, cherry tomatoes, squash, carrots, cucumbers, daikon radishes, strawberries, tangerines, peaches, plums, turkey, peanut butter, walnuts, eggs, whole wheat bread and milk. Making this opportunity available, however, has not been a simple process. The next section of this report chronicles case studies of seven farm-to-school programs from different parts of the country and describes programs in progress. Three of these projects are located in California: Los Angeles, Santa Monica, and Berkeley. The other four are in the Northeast and Southeast: North Carolina, North Florida, New York City, and Hartford, CT. Emerging projects in Iowa, Vermont, Kentucky, and California are also described. These projects represent the development of a new type of school-food relationship: a relationship where healthy schools and healthy farms become part of the same equation. Even though the barriers are substantial, the opportunities are available.

SECTION 2:

CASE STUDIES OF FARM-TO-SCHOOL PROGRAMS

Introduction

As a concept, school districts buying their foods locally from local farmers clearly represents a “win-win” opportunity. Yet, with numerous logistical, administrative, and financial barriers, the devil truly is in the details. This section examines several innovative farm-to-school projects. In recognition of the diverse types of agriculture and growing seasons, the case studies are divided into two categories: western and eastern projects. Seasonality, access to farmers and their produce, local culture, partners involved, and level of buy-in and support of parties involved (namely school food services, farmers, parents) all factor into the types of projects that can be achieved. Projects in Berkeley, Los Angeles, and Santa Monica, CA are examined as examples of farm-to-school projects in the west. While the farmers’ market salad bar model has been implemented as an alternative to the existing hot lunch programs in California, farm-to-school projects in the eastern United States have been primarily focused on replacing non-local/regional/state produce with fresher, more recently picked products that travel a shorter distance from field to table. The eastern projects examined include those in Hartford, Connecticut, North Carolina, New York City, and the northern counties of Florida. There are a number of different initiatives in progress in other parts of the country including Kentucky and Iowa, which are also described.

This section summarizes the lessons learned from these seven case studies that can in turn provide guidance for new farm-to-school projects.

Western Case Studies

Occidental College Community Food Security Project Santa Monica-Malibu Unified School District

When the Occidental College Community Food Security (CFS) Project approached the Southern California-based Santa Monica-Malibu Unified School District (SMMUSD) in 1997, the concept of a salad bar had already been introduced in the district as part of a program to improve student nutrition. While the salad bars were successfully introduced, participation quickly declined and the program appeared in danger of being dropped because of food waste. The Occidental CFS Project intervened at a pivotal time in the life of the salad bar program.

Rooted in food security, nutrition, and environmental concerns, the Occidental CFS Project had begun to explore innovative direct marketing methods that could increase opportunities for small farmers and sustainable methods of growing as well as extend the healthy farms/healthy foods concept to more diverse communities and institutions, including low income communities. The concept of a *farmers' market salad bar* emerged as part of that exploration. The CFS Project, moreover, which functioned as project innovator, also sought to research and evaluate the outcomes of such projects and their larger programmatic and policy implications.

One of the key players in the CFS Project was also a parent in the SMMUSD and had heard the complaints from his children and their friends about the limits of the conventional salad bar. Although initially skeptical of the farmers' market salad bar concept, the SMMUSD Food Service Director decided to cooperate with the CFS Project to implement a single pilot project for one year, with the staffing and management of the program—as well as its evaluation—funded through a grant from The California Endowment, an important statewide foundation in the community health field.

Prior to developing and implementing the farmers' market salad bar project, the CFS Project sought to more systematically identify student concerns with the conventional salad bar. Focus groups were conducted to gather student opinion of the existing salad bar, which offered processed, conventionally grown, and sometimes canned foods. The students complained of wilted lettuce, dried-out carrot sticks, and limited choices.

During this time, awareness and action on environmental and sustainability issues was spreading throughout Santa Monica institutions. The City of Santa Monica had recently adopted a “Sustainable City” program and was interested in supporting initiatives in-line with its policy and findings. In 1996, the SMMUSD adopted a “sustainable schools” policy that expanded the districts' mission to include environmental concerns. The sustainable schools policy led the way for the development of school gardens at several of the schools in the district. Building off the assets and resources of the community and the district, the Occidental CFS Project was able to identify a number of support mechanisms for the farmers' market salad bar, not the least of which was the extensive farmers' market system in Santa Monica. (The City of Santa Monica, with only a population of 90,000, nevertheless hosts four markets a week, including a market primarily devoted to organic produce).

With input from SMMUSD food services, the farmers' market managers and farmers, the City, the principal at the pilot school site, and parents and teachers, the farmers' market salad bar program took shape. It was decided to use

two of the farmers' markets (Wednesday and Saturday markets) as a point of sale and delivery to ensure both freshness and sufficient product. During the first year of the pilot, the program worked as follows. Orders were placed with local farmers who sold at the farmers' market. The farmers harvested the produce and brought it to the farmers' market (usually the next day). The food was delivered to the school cafeteria where it was prepared by parent volunteers and cafeteria staff. The food was prepared in an appealing way based upon student input (e.g. long carrot strips), and offered in a restaurant-style salad bar, with students serving themselves. A parent volunteer or cafeteria staff member monitored the salad bar to ensure that students selected food in accordance with the USDA's standards for the five required items (bread, protein, fruit, vegetables, and milk) for each meal. Students were allowed to take as much of each item within the limits of what was available.

With arrangements made with local farmers and school food service staff, outreach to parents, students, and school staff, and a school board resolution approving the pilot project, the Farmers' Market Salad Bar opened on September 17, 1997. The program was a huge success with students, and had unforeseen success with the school staff. A number of teachers and administrators also chose to eat at the farmers' market salad bar. They served as a model and also helped the program financially, since adult meals generated additional revenue. Participation in the Farmers' Market Salad Bar was far higher than anticipated on the first day (nearly half of the meals selected), despite the hot lunch offering of the day—pizza.

As word of the Farmers' Market Salad Bar spread throughout the district and in the media, other schools became interested in the program, as principals and parents advocated for salad bars at their schools. After the pilot period at McKinley and with a report detailing the outcomes of the program in terms of participation and economics, the school board decided to extend the program to five additional elementary schools in the 1998-1999 school year. To accomplish this, a coordinator, Tracie Payton, was hired to oversee the program. Payton conducted outreach to prepare students, staff, and parents for new farmers' market salad bars at their schools. Payton also served as the liaison between the district and the farmers, responsible for the ordering, pick-up, and delivery. In addition to Payton's position, on-site coordinators were hired for three hours per day to prepare the food for serving. Mainly parents of students at the school site filled these positions. By May of 1999, farmers' market salad bars were operational every day at nine schools. The program continued to grow so that by the 2000-2001 school year, farmers' market salad bars had become available at all the district schools, including the two high schools.

Over the past three school years, the Farmers' Market Salad Bar has achieved

the following goals:

- Improved child nutrition by making healthy, fresh, and tasty food available, especially in schools with a high proportion of students eligible for free or reduced-price meals;
- Provided regional farmers with a new sales outlet in addition to their sales through the farmers' market system (which both assures a more convenient access and delivery system for the school district); and
- Connected classroom nutrition and environmental education with experiences in the school cafeteria, garden, and trips to the farmers' market or farms in order to create an environment where children can learn by doing and by eating.

Quantitative data shows how the program influenced students to make healthy choices. Table 1 shows the daily average number of students opting for the Farmers' Market Salad Bar over the hot lunch offering. At nine of the schools offering the Farmers' Market Salad Bar (Table 1) 32% of the students eating a lunch offered by the district chose the salad bar. (Data not available for the two other schools).

School	Number of Students Choosing Salad Bar	Number of Students Choosing Hot Meats	Total Number of Meals Served	Salad Bar Meals as a % of Total Average Meals Served
McKinley Elem.	114	128	242	47%
Muir/SMASH K-8	86	219	305	28%
Franklin Elem.	28	210	238	12%
Rogers Elem.	104	287	391	27%
Grant Elem.	99	209	308	32%
Edison Elem.	63	197	260	24%
Adams Middle	42	130	172	24%
Pt. Dume Elem.	40	26	66	60%
Webster Elem.	68	114	182	37%
Combined Average				32%

Table 1. Comparison of Average Daily Student Participation in Farmers' Market Salad Bar and Hot Lunch School Year 1999-2000. (Mascarenhas and Gottlieb).

The program has been fiscally sound for the SMMUSD. In 1998-1999, the average costs of a farmers' market salad bar meal was \$0.77 compared to \$0.88 for a hot meal (Mascarenhas and Gottlieb). In that same year, \$22,473 was spent on farmers' market produce.

The education and local components were crucial aspects of the program that were omitted from the earlier conventional salad bar. At most schools, there is a gap between what is taught in the classroom and what is offered in the cafeteria. Teachers may teach nutrition and promote healthy eating according to the USDA's nutrition pyramid, but the cafeteria does not always present students with healthy options in accord with the food pyramid and recommendations from nutritionists. Even beyond basic nutrition, most curricula don't link nutrition to food systems and to the importance of eating locally grown produce to support local, sustainable agriculture practices. To bridge this gap, the CFS Project worked not only to offer healthy choices in the cafeteria, but to connect the program to meaningful educational experiences in the classroom, with school gardens, and through field trips. In the SMMUSD, links have been made from the school garden to the salad bar whenever possible. One strategy that has been utilized is the showcasing of a fruit or vegetable harvested from the garden as a display in the salad bar. (None of the food grown in the garden is actually consumed in the salad bar program at the present time.) Also, students have taken field trips to the farmers' market and to local farms, where they have learned about how food is grown and met the farmers who grow the food they eat at school. This has had a particularly striking impact given that some urban students have little idea about how their food is produced.

The success of this program is evident not just in the numbers of students eating the fresh local produce and the increased revenue for local farmers, but also in the shift in mission of food services at SMMUSD. Rodney Taylor, the once skeptical food service director, now describes himself as a "convert." The school board approved a change in the name and mission of the department to Food and Nutrition Services, due to the successful implementation of the Farmers' Market Salad Bar Program. Food and Nutrition Services at SMMUSD now proudly represents and advocates for similar programs. The letterhead of the department even boasts "Home of the Farmers' Market Salad Bar Program."

The school district has also received awards for the program during the 2000-2001 school year, and was able to achieve two of its core goals: full institutionalization of the program and a farmers' market salad bar at every school in the district. Reorganization of Food and Nutrition Services Department now enables the district to pay the salad bar coordinator as a district-funded position. However, the site coordinators are still paid by grant monies or through PTA support. The role of the CFS Project has evolved over the years from proj-

ect initiators and coordinators to evaluators and technical assistance providers. The SMMUSD Food and Nutrition Services staff themselves have provided and continue to provide technical assistance in the form of tours and/or mentoring for USDA staff, parents, California Department of Education representatives, and other food service departments (Mascarenhas and Gottlieb).

The success of the Farmers' Market Salad Bar in the SMMUSD has influenced other school districts in California, including those in Los Angeles, Berkeley, Ventura, and Davis. Taylor's role as an advocate for the program has been crucial in convincing other school food service directors that such programs can be economically and logistically feasible. At a recent CFSC conference where Taylor co-taught a course on farm-to-school projects, he urged food service directors to "think out of the box" to implement these types of programs that seek to improve child nutrition and support sustainable agriculture.

The development of the SMMUSD Farmers' Market Salad Bar was not without significant obstacles. Financial constraints, within the school district as a whole, were a constant concern, and led at different times to reduction in purchases and thus a reduction in options for the students and revenues for the farmers. The project coordinator sometimes needed to convince skeptical cafeteria staff and local school administration that the program would not constitute an "overload" on the staff and a diversion from the school's activities. The district's substantial after-school program was never fully integrated into the program, in part due to institutional constraints. However, many of these obstacles were overcome through the demonstration of the financial and organizational ability of the program. The SMUSD Farmers' Market Salad Bar Program demonstrated unique strengths, but it also pointed the way to what could constitute a veritable revolution in the operation and goals of the school lunch program.

Occidental College Community Food Security Project Los Angeles Unified School District

Based on the Santa Monica experience, the Occidental CFS Project sought to establish a similar program at the nation's second largest school district—the Los Angeles Unified School District (LAUSD). While the SMMUSD was able to successfully offer the Farmers' Market Salad Bar at its 14 schools, would LAUSD, a large, bureaucratic urban district that purchases immense amounts of food to serve the 722,000 students that attend its 791 schools be willing and able to implement this kind of innovative program? The answer is a qualified "yes." Though significant changes, including farm-to-school programs, have been implemented, the barriers to this kind of radical shift undertaken by SMMUSD remain formidable.

A partnership with the University of California, Los Angeles (UCLA) helped convince LAUSD food service staff of the need for a healthy, fresh lunch for their students. In 1998, a public health research team led by Drs. Wendy Slusser and Charlotte Newman found that among students at 14 low-income elementary schools in LAUSD, 40% of the students were obese and ate approximately 2 servings of fruits and vegetables per day (Slusser, Neumann, and Lange). With this alarming data, the need for a new kind of intervention, such as the Farmers' Market Salad Bar, was clear. Two pilot schools were chosen largely due to the fact they had participated in the UCLA study. The Farmers' Market Salad Bar program was offered as an intervention strategy to improve student nutrition and health, with the UCLA team agreeing to conduct follow-up research. With funding from the USDA Community Food Projects grants program, a partnership with UCLA School of Public Health, and approval from LAUSD food services, the Occidental CFS Project initiated two pilot farmers' market salad bars at two Los Angeles elementary schools.

The LAUSD Farmers' Market Salad Bar Program was designed to work much like the SMMUSD program did in its first year. The program coordinator, an Occidental CFS Program staff member would pre-order produce from farmers, pick it up twice a week at local farmers' markets, and deliver it to the district's central warehouse. From the central warehouse, the food would be delivered to the schools for preparation.

In November, 1999 at Castelar Elementary School in the Chinatown neighborhood of Los Angeles, the first LAUSD Farmers' Market Salad Bar was launched. The student body at Castelar is predominantly Asian and low-income, with more than 90% of the children qualifying for free or reduced lunch. Based upon those numbers, the school has universal free lunch, so all students eat free of charge. Prior to the opening, the CFS Project staff developed and conducted outreach, education, and promotion of the salad bar to the students. An all-school assembly on "salad bar etiquette" was presented by 5th grade students to introduce the farmers' market salad bar and describe how the salad bar would work, ranging from what foods to choose in order to eat a balanced meal to how many strawberries constitute one portion. These activities were helpful in preparing the students for the salad bar and marketing the idea to them.

With the program at Castelar successfully launched (participation rates were in fact higher than those at SMMUSD), the second pilot program was launched in April, 2000 at 59th Street School, with a predominantly African-American student population. The same outreach and education was conducted prior to the Farmers' Market Salad Bar opening, and the program has had even higher levels of participation at 59th Street School.

While the Farmers' Market Salad Bar Program is a major hit with the students, the food service staff has not completely bought into the program. The produce buyer in the purchasing division, Dan Jensen, took issue with the quality of the fresh fruits and vegetables used for the program stating, "Just because it's from the farmers' market, it's not all good produce" (Jensen). Jensen argues that 80% of the produce served is substandard and frequently over-ripe.¹ The conventional method of purchase for LAUSD is through the terminal warehouse, where produce comes from California, Washington, Florida, and Arizona. Since the district purchases such large quantities, they accrue many of the benefits associated with economies of scale, and exercise quality control. In some of his conventional purchasing, Jensen classifies some of his purchases as farm-direct, like his purchases of pears, where he deals directly with farmers.

It is not difficult to understand the perception of the Farmers' Market Salad Bar Program in the eyes of Jensen. Having experience obtaining fresh produce for a competitive price, Jensen is resistant to changes that he feels are unnecessary. There is not consensus between LAUSD food service staff and Occidental CFS Project staff on the definition of family farm, farm-direct, or the importance of organic foods.

Given these concerns, the food service staff decided to test a conventional salad bar at another elementary school in the district. Forty-second Street Elementary School has a salad bar that is sourced through the terminal market and other more conventional methods of procurement. The district is conducting their own research to compare the costs of the Farmers' Market Salad Bar with a conventional salad bar. While experience in the SMMUSD indicated that the conventional salad bar was not sustainable over time (and did not support regional, sustainable, family farms), LAUSD remained most interested in a conventional salad bar concept as the centerpiece of its new emphasis on healthy meals—an emphasis stimulated in part by the successful launch of the Farmers' Market Salad Bar Programs.

While the food service division has not been supportive of expanding the Farmers' Market Salad Bar program throughout the district, parents and teachers have voiced their concerns and requests for farmers' market salad bars at their schools. Food Services has responded by implementing conventional salad bar programs at several elementary schools, while debating the prospects of other programs.

A number of important changes have occurred one year after the implementation of the first pilot farmers' market salad bar in LAUSD:

- Parents are now allowed to volunteer in the cafeteria, strengthening the community link to the school. When the CFS Project staff started meeting with LAUSD food service staff, this was not allowed, but by raising the question with the district and through parental support, the district now allows volunteers.
- Salad bar programs are now offered at several elementary schools in the district. While these salad bars are not all sourced with farmers' market produce, nonetheless they represent an important improvement in the school lunch program.
- LAUSD food service staff, recognizing the need to educate students on healthy eating choices, has begun to utilize education/outreach activities to introduce the salad bar to students, even with those salad bars that are not farm-direct.
- More students are taking field trips to farmers' markets and farms. As part of the education component of the Farmers' Market Salad Bar Program, students visited local farmers' markets and farms to learn about sustainable agriculture and nutritious eating.
- The UCLA public health research team involved in the initial research on obesity in LAUSD is doing follow-up post-intervention studies to document the impact of the Farmers' Market Salad Bar on student nutritional intake.

The original goal of increasing access to fresh foods has been accomplished at many schools, but the future of the farm-direct component of the salad bar program in LAUSD is still unresolved. The food service division at LAUSD is concerned with cost, quality, and delivery. Presently, the Occidental CFS Project is responsible for the tasks of ordering from farmers, picking up produce from the farmers' market, and delivering to the district warehouse. However, the CFS Project would like LAUSD to take over these tasks at the end of the pilot period (as SMMUSD did). In order to streamline the process for the district, the Occidental CFS Project is researching alternatives to the farmers' market structure for getting food more directly from farmer to consumer, including the development of a cooperative or non-profit based delivery and quality control system.

The strongest support for the farmers' market salad bar in LAUSD has come from parents and parent groups, who as school district constituents, have been effective in getting the district to open more salad bars. If the enthusiasm and will of the parents is any indicator, their advocacy will change the character of the food that is served to their children as part of the school lunch program. Aside from the grassroots pressure, the possibility of a district-wide policy, to be established by the school board, is also to be explored. One model for such a policy has already been developed by the Berkeley Unified School District.

The Food Systems Project Berkeley Unified School District

Berkeley, California is ripe for a farm-to-school project. It is politically progressive, less than a four hour drive from many small-scale (including organic) farmers, host to two farmers' markets per week, and home to a vast array of non-profit organizations working on issues of food security, food systems, farmers' markets, sustainable agriculture education, and gardening. The Food Systems Project, a project of the Center for Eco-literacy, uses what it calls a "whole systems approach to the study of food to link Berkeley Unified School District (BUSD) students, their families, their community, and local family farms" (www.foodsystems.org). This group has recently been at the center of efforts to improve the food that is offered at schools and to educate students about food systems.

The work in Berkeley varies from many of the other case studies described in this report because its school food policy was implemented early in the development of the program. A team consisting of parents, a school board member, the school superintendent, child nutrition services staff, and the Food Systems Project staff collaborated to draft a comprehensive food and nutrition policy for the district. Bringing together stakeholders was helpful not only in developing a strong policy, but for having a core group of advocates help pass the policy and implement the programs. In August 1999, amidst much media attention, the Berkeley school board passed what constituted an expansive food policy.

The food policy covers twelve goals, including "Ensure that no student in Berkeley is hungry" and "Eliminate the reduced-price category (to insure a greater number of free meals)," it also calls for installation of full service kitchens and availability of breakfast, lunch, and snacks through the school district. The media picked up on one specific part of the policy, glossing over many of the other important aspects. Reporters focused almost solely on the district's goal of providing organic food to the maximum extent possible. From San Francisco to New York and even as far away as Singapore, newspapers reported on this unique approach, questioning whether kids would eat organic food and how the district would pay for it.

While focusing on the progressive climate of Berkeley in which such a policy was passed unanimously by the school board, the media missed the interconnectedness and complexity of the policy. Not only does the policy advocate for organic food to the maximum extent and elimination of bovine growth hormones, irradiation, and genetically modified foods; it seeks to more fully inte-

grate Child Nutrition Services with the rest of the school. The BUSD policy seeks to make the cafeteria an extension of the classroom, a learning laboratory for sustainable agriculture, nutrition, and waste management. The policy also calls for links to gardening, math, science, social studies, and language arts.

After its success with the school board, the Food Systems Project, in conjunction with Child Nutrition Services, as well as community residents, shifted their focus to what would emerge a more challenging task—putting policy into action. Before working on the farm-to-school aspect of their project, the Food Systems Project focused on changing the content and format of the school lunch menu. For example, the inclusion of advertisements for television and video games was challenged. Instead of ads, the superintendent of the district now writes a message to parents and students about nutrition, learning, and health. Additionally, they have included coupons for use at the farmers' markets. Even before the salad bar program began, a fresh fruit or vegetable item (nearly always organically grown) was included in the conventional hot lunch. Organic snack foods in all of the new after-school programs were also provided.

A critical focus for the program remained the development of a farmers' market salad bar. After a site visit to the Farmers' Market Salad Bar program in Santa Monica, the BUSD decided to develop a pilot program for the spring 2000 semester. On May 18, 2000, with a systematic effort of planning, training, and outreach, a farmers' market salad bar opened at Malcolm X Elementary School with great participation and enthusiasm from students. As the Food Systems Project learned, it is a complex, but attainable task to change the logistics of purchasing, preparation, and serving procedures of a food service department, even with supporting policies in place.

To identify which school would serve as the pilot for a farmers' market salad bar, requests for proposals were distributed to the district's elementary schools. Schools interested in applying were required to have a coordinated Food Team comprised of principal, teachers, food services staff, students, parents, and garden coordinator. Requiring broad support on-site was part of a larger strategy to ensure the salad bar's success from its initial stages. In addition to planning for the salad bar, schools were required to submit their vision and plan for linking the salad bar to the school garden, the classroom, and local farms or farmers' markets. Malcolm X Elementary School, which was chosen as the first salad bar site, has a student population similar to all other schools in the BUSD, as the district employs district-wide busing. Demographically, the ethnic makeup of the student body is approximately 50% Black, 28% White, 13% Hispanic, and 8% Asian (www.nces.ed.gov). Excluding the high school, approximately 43% of students in the district qualify for free or reduced price lunch.

Suzanne Bernhard, Child Nutrition Field Supervisor, was hired by BUSD to coordinate the salad bar program. Starting in February, Bernhard made visits to nearly every class at Malcolm X to introduce the concept of a farmers' market salad bar. Students were able to taste salad greens and share their food preferences.

A number of changes had to be made at Malcolm X in order for the salad bar to function. The district already owned a salad bar and the school had a kitchen with sinks, stoves, and limited refrigeration. However, the kitchen was missing ceiling tiles and a new sink with three separate compartments for washing lettuce needed to be installed. Additional pans, knives, and cutting boards were purchased so that the food could be prepared on-site. As with many school kitchens, not all BUSD school kitchens are equipped for handling fresh food, and not all food service staff are trained to prepare fresh food. An extra staff person was hired for four hours a day to assist in food preparation, as well as monitor and supervise the salad bar.

The logistics of delivery and transport were established in the spring. Arrangements were made with six small-scale farmers located less than a four-hour drive from Berkeley and who also sell at the Berkeley farmers' markets. Orders were made in advance with the farmers, and the food was picked up at the farmers' market in Berkeley. Bernhard made trips to the farmers' market on Tuesdays and Saturdays. On Tuesdays, the food went directly from the market to the school site, where it was served on Wednesday, Thursday, and Friday. The produce from Saturday was stored at the districts' warehouse and delivered to the school on Monday to be prepared and served on Monday and Tuesday. Six farmers currently supply a wide range of fresh produce for the salad bar including lettuce, strawberries, oranges, nectarines, peaches, and carrots during the appropriate seasons.

The salad bar is a welcome improvement for students, faculty, and staff at Malcolm X. District staff from a nearby building even walked over to Malcolm X to eat the fresh, mostly organic salad bar. On any given day at Malcolm X, the salad bar provides students with fresh, local food choices. During the 21 days that it was operational from May 18 to the end of the 1999-2000 school year, students had the opportunity to choose salad greens, carrots, tomatoes, fresh fruit, bread (donated by a local bakery), cheese, a meat item such as salmon pate, walnuts, peanuts, croutons, or dried figs. The fresh produce is organic to the maximum extent possible, but the non-produce items are not and are acquired free through the USDA's commodity program. These free items supplement the farmers' market produce and contribute to the economic viability of the program.

During the 21 days that the salad bar was operational during the 1999-2000 school year, participation in the lunch program increased 14%. There was a 7% increase among students eligible for free lunch, a 6% increase among students eligible for reduced-price lunch, and a 46% increase in paid lunches. This increased participation, especially among full-price lunches, brought additional revenue to the district's lunch program. Students picked the salad bar over the hot lunch by a four-to-one ratio. In a cost comparison, the average salad bar lunch meal cost \$1.44.² Considering labor costs, the average salad bar meal cost \$1.66, equivalent to the average hot lunch meal (including food costs, supplies, and labor).³ However, the district made a profit on the salad bar because increased participation (especially among paid lunches) brought in additional revenue (Lawson, Memo).

Berkeley's pilot salad bar was an immediate success. As a consequence of the increased participation, students were able to eat more fresh fruits and vegetables on a daily basis. Connections have been made between farming and eating, with students introduced to sustainable agricultural practices. The cafeteria, in turn, also becomes a learning opportunity. For example, during one lunch, a student anxiously approached Bernhard, upset that he had found a bug in his salad. Instead of treating the insect as a pest, and something to be feared, Bernhard talked with the student about the importance of beneficial insects and not using chemical pesticides in organic farming. While such occurrences are very rare, she was able to turn a potentially disastrous experience into an educational opportunity (Lawson, Personal interview).

The salad bar has also strengthened the school community. In the original proposal, a custodian at Malcolm X signed onto the Food Team, but was concerned about the "mess" that would result from students serving themselves. After the salad bar was operational and he saw students actually choosing to eat healthy food, he became a supporter. District staff from nearby buildings actually walked to the elementary school to eat from the salad bar, instead of bringing lunch from home or opting for fast food lunch. Parents have come into the school at lunchtime to help with the preparations, becoming actively involved in their children's education.

The future of the salad bar program looks promising in Berkeley. The District and the Food Systems Project have plans and grant funding to expand the program to three additional schools during the 2000-2001 school year. A new position has been created for a person to coordinate the farm and farmers' market field trips and arrange to have farmers teach in the classroom.

Eastern Case Studies

While the California programs benefit substantially from a year-round growing season and a wide array of seasonal produce, schools in other parts of the country have established their own regional, specific, and innovative initiatives. Thus, while the limitations of seasonality reduce some opportunities-like a continuous salad bar program-other initiatives have taken root, establishing a national framework for the Healthy Farms, Healthy Kids approach.

The Hartford Food System Hartford Public Schools

The Hartford Food System (HFS), perhaps the longest standing community food security organization, has a 22-year history of advocacy in food systems work. It is no surprise that this pioneering organization in the arena of sustainable food production and consumption, located in the heart of a major northeastern city, initiated and implemented one of the first farm-to-school projects.

The genesis of the idea to link local farms with the school lunch program began during the 1992-1993 school year when HFS Program Director Elizabeth Wheeler worked with a schoolteacher on a weeklong project for Cancer Prevention Week. Trained as a chef, Wheeler worked to increase the acceptance of local foods by using them as the basis for tasty recipes, and to make the connection between nutritious eating and cancer prevention. This initial partnership between school teachers and HFS was important in beginning to increase local food offerings in the daily school lunch program. After the weeklong campaign, Wheeler worked with district officials reviewing purchase records to determine how much local produce was being offered to Hartford students. This data gathering provided the baseline information for the Farm Fresh Start program.

HFS led a collaboration of Hartford Public School Food Service, local farmers, the Connecticut Department of Agriculture, and the University of Connecticut Department of Nutrition to develop a pilot program to increase the use of local produce in the school lunch program. Called Farm Fresh Start, the program was piloted in the 1994-1995 school year. Major support for this program came from Northeast SARE (Sustainable Agriculture Research and Education), a USDA grant program. Two schools in the Hartford Public School System were chosen for the pilot program, which consisted of an eight-week period in the fall of 1994 and an eight-week period in the spring of 1995. One was a 650-student elementary school and the other was a middle school with 450 stu-

dents. The Hartford Public School system is comprised of approximately 24,000 students. On an average day, 19,812 lunches are served at 35 public schools, three charter schools, and one private school. During the pilot period, over 80% of the students were eligible for free or reduced-price meals. The district currently provides universal free meals. The Food Service Department has an operating budget of \$8 million and a staff of 400. In the district, there are 24 on-site kitchens, and pre-packed meals are served at the remaining 14 sites.

In the cafeteria, for eight weeks in the fall and winter, local produce was integrated into the daily school lunch offering. Because some of these items had not been previously used in the menus, new recipes were developed to entice the students to try new foods. During the eight-week fall/winter pilot, 50-70% of the total volume of fresh fruits and vegetables, or 3,848 lbs., was produced locally. However, in the springtime, these numbers were lower because of the decreased availability of a variety of fruits and vegetables due to the short growing season in the Northeast.

In 1996, the program expanded to three schools: a 705-student elementary school, a 1,262-student middle school and a 962-student middle school. Over an eleven-week period from September to mid-November, the school cafeterias purchased a total of 19,800 pounds of locally grown produce, about 70% of the district's total fresh produce purchases. Eighty percent of the volume by weight was composed of fruit (The Hartford Food System).

In the original plan to increase local produce in the Hartford Public Schools, farmers made deliveries directly to the school district. It was hoped that this method of eliminating the "middle man" would lower the price of produce for the school district and increase profits for the farmers. However, logistically this idea presented many complications: too much work for the farmers, as small deliveries to schools scattered throughout the city was inconvenient and not cost-effective; food services preferred all its produce and grocery items delivered once a week, not from many sources at different times; and small farmers did not have the processing capacity to provide products in the form desired by food services.

The workable solution developed by HFS and the Hartford Public Schools was to use the services of a local food wholesaler who had already established business relations with local farmers, some of whom grew organically or used IPM (integrated pest management) strategies. Hartford Public Schools would then be able to obtain the produce through the local food wholesaler, who in turn would work with the farmers to obtain produce in the desired form for the food services staff. In addition, the wholesaler used its in-house "fresh-cut" processing capacity to prepare items such as husked halved fresh corn-on-the-cob.

Collaborators in the Hartford project learned that the school food service managers were concerned that local farms would not conform to standard produce specifications. In addition to quality standards, the specifications include standardized pack sizes that enable food services to plan yields and pricing estimates for the finished preparations. It was vital to the success of the program that the produce meet pack and grade specifications, and was consistent, fresh, tasty, and attractive (The Hartford Food System). Another major concern was the additional labor costs associated with preparing raw produce. Value-added products - diced and peeled squash and potatoes, and shredded cabbage - were desired by the food service department as labor savers for the food service staff. The wholesaler was able to provide regional produce in this form, at a reasonable cost. The wholesaler also provided the food service director forecasts of the fruits and vegetables that would be available in the harvest season. This is important information for most school food service directors, who plan their menus months in advance.

Cost was a major factor in the success of this program. Ultimately, the bidding system determined what food was purchased. Hartford Public Schools Food Services requires three bids for its weekly produce purchases for the entire school system, meaning that three different produce companies provide prices for the produce order. Generally, the lowest bidder wins the business. Based upon these numbers, the food buyer makes his decision. But Food Services does have some discretion in purchasing decisions. In the words of Jeff Sidewater, Assistant Director of Food Services, "If it's close, we'll get the natives" (Sidewater).

Sidewater further explained, using a case of pears as an example, that the district would buy local pears if they cost less than an extra \$1 or \$2 per case. While this practice may work during the tenure of a school food service director who values local produce, without policies in place in the food service procedures, there may not be consistent efforts to include regional produce in the food offerings. Table 2 shows the cost comparison of local and non-local produce purchased by the Hartford School Food Services Department.

Item	Range of Cost Difference between Local and Non-Local Produce	Average Difference between Local and Non-Local Produce
Local apples	30% less to 20% higher	8% less
Local pears	15% less to 6% higher	7% less
Local tomatoes	31% less to 49% higher	39% less
Local romaine lettuce	34% less	34% less

Table 2. Cost Comparison between local and non-local produce, Fall, 1997 (Sidewater).

In addition to its efforts in the cafeteria, the Farm Fresh Start Program carried out a complementary classroom food education component. The program was not used school-wide at the two pilot schools, but in one or two classes at each school. The State of Connecticut does not mandate nutrition education as part of its required curriculum, so the efforts of the teachers who taught nutrition were in addition to the required coursework. This add-on nutrition education program included farm visits and cooking lessons (including hands-on workshops with chefs) for approximately 40 students at each school. At the end of the pilot program, the percentage of students who went through this curriculum and could recall the names of five local fruits or vegetables rose from 15.8% to 77.8% (The Hartford Food System). Not only did the program increase the acceptance of local foods; it also made them *better-educated* eaters.

Despite significant obstacles, the Hartford program has succeeded in two key ways: by establishing a flexible program that has led to increases in the purchase of local produce for the school cafeteria; and by linking its farm-to-school objectives with heightened awareness in the classroom about nutrition and the variety and source of different foods. Despite these successes, institutional and/or policy mechanisms still need to be established to help extend and institutionalize these programs. According to Wheeler, “The whole experience was an educational process and philosophically they [Hartford Food Services Department] agree, but their main focus is running the program and maintaining the bottom line, as it is with every school food service operation” (Wheeler). However, the pilot project does seem to have affected the school district. If Sidewater’s comments are any indication, the experience with the Farm Fresh Start Program has influenced their buying practices.

CORE Values, a project of Mothers & Others For a Livable Planet

New York Public Schools

In the summer of 1998, two organizations working on community food security, sustainable agriculture, and nutrition education issues sought to broaden the scope of an existing classroom cooking program and create ties to regional sustainable agriculture. The partnership brought regional apples grown with integrated pest management (IPM) strategies into the lunchrooms of public schools in the borough of Manhattan. The arrangement was complex and short-lived, and illustrates how, in the National School Lunch Program, government-donated commodities, often shipped from far-away states, displace produce that is grown within the state, including produce that is grown sustainably.

The Community Food Resource Program, based in New York City, runs a hands-on classroom cooking program designed to teach students about how

food is grown and how to prepare it. The CookShop program was first scheduled for seven Manhattan schools in the spring of 1999. Prior to that date, however, organizers sought to include regional apples in the schools with CookShop programs in order to strengthen the link between classroom and cafeteria learning. Previously, there had been no explicit focus on New York grown produce in the CookShop program, although students learned about how New York farmers grew their crops, and recipes were developed that used many ingredients indigenous to the region.

To help establish local or regional criteria for produce selection for their cafeteria activities and the menus for cooking at the seven schools, the CookShop program began to meet with staff from the CORE Values apple marketing program and the Office of School Food and Nutrition Services of the New York City Board of Education. (CORE Values, a program of Mothers and Others, is an eco-label that is applied to apples that are grown with IPM techniques. A third-party inspector certifies CORE Values growers and the eco-label apples are sold in many major grocery stores in New York, Massachusetts, and Connecticut.)

The bidding and supply system employed by this district calls for bids every six months from competing suppliers. While the process dictates that the distributor with the lowest price be awarded the contract, in practice the district hasn't changed distributors for years (Just Food & CFRC). Since the district's distributor was already purchasing conventional apples from a distributor of CORE Values apples, no new business partners were needed. The district's distributor agreed to purchase CORE Values apples for the district as long as the cost was "within \$1 per box of other apples" (Just Food & CFRC). Because of this agreement, the apples served in all Manhattan public schools from September to December 1998 were CORE Values eco-label apples grown in the Northeast United States.

However, by spring, commodity apples had become available from the USDA, so the distributor to the district did not supply apples to the Manhattan schools. Schools participating in the National School Lunch Program are eligible for government donated commodities. The government purchases US grown commodity items to support the agricultural market, and these foods are made available to schools free, except for delivery costs. As commodity apples became available to the District in the spring, as was common, they opted to use the "free" apples over the more expensive (and less conventionally-produced) CORE Values apples.

The district probably foresaw this sudden shift in apple supply, since commodity apples usually become available in the spring. However, it was a sur-

prise to the CORE Values distributor and the other parties new to the food procurement scene. As the CookShop program started in the spring, the cafeteria was using apples grown outside the region. According to the head of the district's distributor, they were losing as much as \$1,000/week by purchasing CORE Values apples (Just Food & CFRC). In the existing school food services climate, traditional economic choices (a straight price comparison as sole criteria) invariably prevails over other criteria (such as source of food and even taste criteria). The education piece did not accompany the introduction of CORE Values apples, so it's not known if any students even knew, much less understood the distinction between the CORE Values apples they were eating in October and the conventionally-grown, commodity apples they were eating in March.

The impact on CORE Values growers was minimal. After the district distributor stopped purchasing CORE Values apples, the CORE Values distributor had to find another market for the apples. For the growers themselves, they may not have even known that their apples were going to the Manhattan schools. CORE Values grower Amy Walker did not view the district as a desirable market, because chain stores are more willing to pay a higher price (Just Food & CFRC). While the short-term impact on the growers was minimal, the impact on the distributors was more substantial. The two distributors involved took a financial hit when the district shifted to commodity apples.

Lessons can be learned from this example in New York. The process of integrating regionally-grown produce requires buy-in and support from many parties. Developing a multi-constituency approach may ensure longer-term viability. Education, communication, planning, and foresight are necessary for implementing a long-term arrangement. Finally, the commodity program itself, and its critical influence on purchasing for food services, needs to be addressed as part of a farm-to-school approach. Room within the commodity program needs to be made to support local family scale farmers rather than just benefit agri-businesses.

North Carolina and Florida: USDA Initiatives

The USDA has piloted and currently and supports farm-to-school projects across the US. The two primary programs have been developed in North Carolina and Florida.

North Carolina Department of Agriculture and Consumer Services

In North Carolina, the Department of Agriculture and Consumer Services realized the benefits that farmers within the state could derive from selling direct-

ly to schools. They encouraged school food service operations to buy directly from farmers, but most were reluctant to change their practices. According to Archie Hart, Special Assistant to the Commissioner of Agriculture, some incentive was necessary to convince school food services to change their procurement procedures to include North Carolina farms (Hart). The North Carolina General Assembly passed legislation to provide 50 schools with \$1,000 grants to make purchases from NC farmers. Schools that were reluctant to make changes were now willing to connect with area farmers to supply food for the school lunch program. The first year of the program, 11 schools received \$1,000 grants. During that first year, the participating schools purchased more than \$40,000 from small farmers within the state. In year two, they received \$500 from the state, and by year three, the schools financed the program out of their own budgets.

In January 1998, the USDA hosted a Town Hall Meeting to bring together potential partners in farm-to-school projects. Farmers and school food service directors learned how they could benefit from working together to provide fresh, local produce in school lunch programs. The United States Department of Defense (DoD) program was pitched as a way to link the farmers and schools, drawing upon existing resources, warehouses, and transportation systems. This conference raised awareness about the DoD program within the state, and helped the program grow in year two.

Farm-to-school activities in the State of North Carolina now utilize a special program coordinated by the (DoD), as a result of a memorandum of understanding between the USDA (Agricultural Marketing Service and Food and Nutrition Services) and the DoD. This DoD program is available in three other states, but the North Carolina Department of Agriculture and Consumer Services administers the program, so it is more coordinated and centralized in North Carolina than in other states. The program that the state started with incentive monies to schools has been combined with the DoD procurement program.

In the second year of the program (school year 1998-1999), another 11 school

Item	Quantity (cases)	Value
Apples	6,288	\$90,903.00
Cabbage	1,880	\$6,774.00
Melons	2,327	\$26,760.50
Strawberries	3,283	\$41,858.25
Sweet Potatoes	1,960	\$18,659.20
Total	15,738	\$184,954.95

Table 3: Total Quantity and Value of Produce Purchased by DoD for North Carolina Schools During the 1998-1999 School Year (www.agr.state.nc.us).

systems joined the program, purchasing apples, onions, strawberries, melons, and lettuce. Table 3 indicates the quantities and value of local crops purchased by NC schools in 1998-1999 school year.

In August 2000, the North Carolina Department of Agriculture and Consumer Services released a press release boasting that 54 schools were participating in the DoD program and were receiving state-grown watermelons and cantaloupes for their lunches (www.agr.state.nc.us).

The program in North Carolina is successful in part because of the involvement of the North Carolina Department of Agriculture and Consumer Services, which has assumed a large part in administering the program. The state owns the warehouses and trucks that are used for storage and delivery, which enables schools to obtain cheaper prices with the program than they would by dealing with a produce broker (Fogelman). Ultimately, the North Carolina experience points to the critical role that public agencies can play in addressing key barriers and facilitating crucial components of a farm-to-school approach.

New North Florida Cooperative

North Florida

In 1998, the National Commission on Small Farms, appointed by then-Secretary of Agriculture Dan Glickman, reported on the state of small farms in the United States and set forth 146 recommendations to improve the climate of small farming in the United States. Farm-to-school initiatives, along with other direct marketing strategies for small farmers designed to provide a steady demand for farmers' produce, were central to the goals outlined in the Small Farm Commission Report. Along those lines, a partnership between two USDA agencies, the Natural Resources Conservation Service (NRCS) and the Agricultural Marketing Service (AMS), along with the West Florida Resource Conservation and Development Council (WFRCDC) and the Small Farmer Outreach Training and Technical Assistance Program at Florida A & M University was formed to provide additional markets for limited-resource farmers in light of the recommendations from the Small Farm Commission.

To take action in sustaining their small farms, a group of farmers convened in May 1997 and decided to form the New North Florida Cooperative. With technical and financial support from the above partners, they first identified the problems that they, as small farmers in a new cooperative, would face:

- Threat of going out of business;
- Maintaining focus of the co-op to one market (schools);

- Dealing with negative attitudes within and outside the co-op;
- Making sacrifices for the short-term to benefit farmers in the long-term (Schofer et al).

Cognizant of these concerns, the members formed the New North Florida Co-op, selected a management team, and created a business plan. The Cooperative drafted the following mission statement to guide its activities.

“The New North Florida Cooperative provides fresh, healthy agricultural products at a fair price to local school districts’ lunch and breakfast programs. The Cooperative is responsible for the marketing, handling, processing, and delivery services of agricultural products produced by participating local small farm operators. The Cooperative will meet the needs of local small farm operators by facilitating the flow of profit from the value-added business operation to and within the local community.”

In order to build a customer base, the New North Florida Cooperative met with the school food service director of Gadsen County School District, J’Amy Peterson. To convince Peterson that a small, limited-resource cooperative could provide a large supply of product, the Cooperative *donated* 3,000 pounds of washed, chopped, and bagged leafy greens to the school as a free sample. Peterson was convinced by the gesture, and moved ahead to solidify the business relationship between the Co-op and the school district.

In order to tap into federal funds made available to schools for the purchase of fresh fruits and vegetables, the Co-op went through the application process to become a certified vendor and processor with the Department of Defense (DoD). As a certified vendor and processor, the school district is reimbursed for expenses of fresh fruit and vegetable purchases.

Early in its business relationship with local school districts, the New North Florida Co-operative was functioning without processing equipment. They were supplying schools with processed produce-cut collard greens, but they had no chopping machine or refrigerated storage space. Without this space, greens had to be picked one day, and then processed and delivered to the schools the next day. Equipment purchased improved the Cooperative’s ability to provide fresh, processed produce in a timely manner, and required fewer hours of labor. The Cooperative built a packing/processing shed as a site for washing, cutting, and packaging. A cutting machine was purchased to automate the job of cutting greens, sinks were purchased to replace the steel bins that were previously used for washing, and a refrigerated trailer was purchased to ensure the freshest produce quality at the time of delivery. These purchases improved the ability of the Cooperative to supply produce to the specifications

of the districts.

The Cooperative's efforts have been rewarded in the increased farm income in the 1997-1998 school year, its first year of operation. One reason the Cooperative has been so successful is due to the niche market that they have been able to access. There is little competition in providing fresh, washed, chopped, bagged, delivered greens (Schofer et al), so the Cooperative is able to negotiate a price that they deem fair to the districts and profitable for them.

Product	Total amount sold
Turnup greens	6,111 lbs.
Collard greens	5,662 lbs
Strawberries	179 flats
Watermelons	100 (#)

Table 4. Volume of produce sold by the New North Florida Cooperative during the 1997-1998 school year (Schofer et al).

During the 1997-1998 school year, the Co-op sold turnip greens, collard greens, and strawberries to the Gadsen County School District (Table 4).

During the 1998-1999 school year, the Cooperative increased its sales to schools in Gadsen, Leon, and Walton Counties. A trial with strawberries did not yield much profit, as over 1,000 lbs. were harvested but only 300 lbs. were sold to due to spoilage. The Cooperative learned from this experience how to expand their product line and provide more products to the school districts

Product	Total amount sold
Leafy greens	24,030 lbs.
Cole Slaw	500 lbs.
Blackberries	700 lbs.
Muscadine grapes	3,900 lbs.
Strawberries	288 gal.

Table 5. Volume of produce sold by the New North Florida Cooperative during the 1998-1999 school year (Schofer et al).

(Schofer et al). Table 5 shows the amount of produce sold by the Co-op to schools in the 1998-1999 school year.

The Cooperative continues its business relationships with districts in northern Florida and is monitoring and evaluating the project in the areas of cost effectiveness/ efficiency, student acceptance, administrative acceptance, and nutritional acceptance.

Both USDA programs were established on the basis of increasing the revenue stream for local farmers and have been successful in accomplishing that goal. Students also benefited from the increased availability of fresh produce. However, the key to these programs were their business or economic orientation, but not necessarily the broader social, nutritional, and educational outcomes central to other farm-to-school initiatives.

Programs in Progress

The success of current programs and opportunities for future farm-to-school programs has spread throughout the non-profit, farm, and school community by word of mouth, conference presentations, and press coverage. Efforts on behalf of the USDA, community groups, non-profit organizations, state departments, and farmers have led to an increase in the interest of farm-to-school programs. New programs and partnerships around the country show the interest and potential for creating new links between farms and schools.

USDA's Efforts

Recognizing the significant benefits that farm-to-school partnerships can provide for farmers, school food services, and students, several agencies of the USDA have supported farm-to-school efforts over the past five years. Food, Nutrition, and Consumer Services (FNS) and Agricultural Marketing Service (AMS) began "a comprehensive approach to connecting small farms to the school meal programs" in summer 1997 (USDA/FNS.). More information on the Small Farms/ School Meals Initiative can be found in Section 3.

On May 1, 2000, the USDA Small Farms/School Meals Initiative co-hosted a highly successful workshop in Kentucky. With organizing led by the University of Kentucky Cooperative Extension Service and the Kentucky Department of Agriculture, over 180 people convened to strategize and plan for ways to connect farmers and schools. Since May, over 300 Kentucky schools have enrolled in the DoD program for linking farmers with schools. At one school with a large student population of Asian students in Lafayette County, the school has linked up with an Asian-American farmer who grows "Asian cultural" foods and the school has created new recipes that appeal to their student body (Mansfield).

In November, 2000, USDA also co-hosted a workshop with Iowa State University Extension and the non-profit Practical Farmers of Iowa (PFI). With approximately 100 persons in attendance, including various farmers and school food service officials, this workshop highlighted various small scale farm-to-school projects in the state. These included an emerging cooperative

of farmers selling to schools in Northeast Iowa, and a pilot project in Nevada, a small town in the central part of the state. In the Nevada example, a PFI staff person served as a liaison between the school district and various farmers. This allowed the school food service director one-stop shopping for her local produce needs, eliminating some of the logistical issues inherent in ordering from multiple small farmers. The PFI liaison in turn worked with farmers in the area to coordinate deliveries.

Other USDA workshops are planned for New York, New Jersey, and California in upcoming months. These states are all eligible to participate in the DoD program, so USDA's strategy is to plug interested school districts into that existing structure. However, it is not known to what extent the produce purchased in the DoD program derives from small farmers. In "Meeting the Challenge of *A Time To Act: USDA Progress and Achievements on Small Farms*," the USDA committed to continued discussion on the feasibility of purchasing from small farmers via the DoD program (USDA National Commission on Small Farms).

New York

In the state of New York, a special task force of the New York State School Food Service Association (NYSSFSA) has formed to identify barriers and find solutions to implementing state grown produce in the school lunch program. The task force, comprised mainly of food service directors interested in supporting NY state agriculture, conducted a statewide survey of products used in lunch menus. From the 655 school food service directors who responded to the survey, they concluded that most school systems purchase from food distributors. Locally produced apple cider was purchased directly from growers in some instances. The task force is now looking at ways to increase the use of state-grown apples and cider in New York state schools by working with shippers, packers, and wholesalers. The group has also conducted research into the bidding regulations of the state that block farmer-direct purchases, especially regulations that required open bidding to all eligible suppliers. On the policy side, the task force is researching possible legislative action to provide additional reimbursement for produce purchased within the state. In January 2001, as part of a broader consortium on farm-to-school (see IFAFS below), Cornell University will host a New York farm-to-school workshop to discuss bidding barriers and identify potential products suited for sales to schools (Neff).

Vermont

Recently funded with a USDA Community Food Security Grant, the Northeast

Organic Farming Association of Vermont (NOFA-VT) is leading a project to improve opportunities for direct marketing between local farmers and schools. In 1998, NOFA-VT hosted the Vermont Farm-to-School Forum to strategize on how to develop relationships and work with school food service departments to purchase from local farmers. Two pilot programs were conducted with small elementary schools, and the USDA grant will enable Vermont Food Education Every Day (Vermont FEED) to evaluate and expand their curriculum and purchasing pilot to four schools in 2001 and to one school in each of Vermont's 14 counties in 2002 (www.reeusda.gov). While most of the other farm-to-school projects have taken place in urban areas, this project will provide important information for those interesting in making farm-to-school connections in rural areas.

Development of a Consortium: Initiative for Future Agricultural Food Systems (IFAFS)

The Community Food Security Coalition's annual meetings have been a forum for discussions, strategy, and committee work to advance farm-to-school programs. A school food committee of the CFSC was formed in 1998, and a campaign statement was adopted by the board of directors in 1999. The CFSC was central in bringing together partners for the USDA IFAFS grant program. Occidental College's Community Food Security Project, known for its work with the Santa Monica-Malibu Unified School District and the Los Angeles Unified School District, took the lead on this consortium. Funded in October 2000, consortium members include Occidental College, California Department of Education, Community Alliance with Family Farmers, the Community Food Security Coalition, Davis Joint Unified School District (CA), Cornell University, Rutgers University, University of California Sustainable Agriculture, Research, and Education Program (SAREP), and Penn State University. Working together, these parties will initiate new farm-to-school programs in 16 school districts in California, New York, and New Jersey. In addition, the consortium will conduct research on the economics of these programs, especially with regard to small farm viability. Outreach and education materials for school food service personnel will be developed. The work will spread much farther than the consortium members, with training and technical assistance provided through the CFSC and Penn State University. The goal of the training component is to catalyze new farm-to-school projects in numerous communities throughout the nation.

Case Study Lessons Learned/General Guidelines for Successful Farm-to-School Projects

The experiences chronicled in this report represent a wide variety of strategies

for creating and sustaining farm-to-school programs. The examples profiled include programs initiated by non-profit organizations and farmers, in urban and rural areas, those instituted on a programmatic basis and others on a programmatic/policy level and other where public agencies played a direct role. Some projects worked with the existing lunch menu, while others offered an alternative to the hot lunch option. Despite these wide variances in programs, common themes and practices emerge for promoting successful farm-to-school programs.

The following general guidelines are suggested for sustainable programs linking farms and schools:

1. Base programs on agricultural products that are available in a region during the academic calendar. Be aware of the seasonality of crops in the region. Forge partnerships with local farm organizations, farmers' markets, cooperative extension agents and other individuals/ organizations who have similar goals of supporting local agriculture.

All of the programs described above take advantage of agricultural products available regionally, locally, or within state. Obviously, California has a lengthy growing season and programs in that region are able to utilize produce year-round. Other regions have taken advantage of the agricultural products that are abundant in their areas. In Hartford, the pilot programs designed to run during times when regional crops were available. In Florida, the Cooperative marketed an item they could supply with reliability (leafy greens) and worked to expand their product list to include other items desired by schools (berries). The Hartford Food System's project had a partnership with the state department of agriculture, whereas the North Carolina Department of Agriculture and Consumer Services plays a key role in delivery of produce from farmers to schools. The farmers' market salad bars in Santa Monica, Los Angeles, and Berkeley rely heavily on partnerships with the farmers that sell at the certified⁴ farmers' markets.

2. Identify leaders and develop new leadership amongst parents, community members, and others who have the potential to be advocates. Get the school district to create an advisory body so that this group of advocates has real power to work with food services and school sites to implement farm-to-school programs.

Parents are important stakeholders in the area of child nutrition and school-based programs. They may already be familiar with the politics of the school and the district and know how to get things done. An advisory board of parents and other stakeholders is a useful group to provide input on project ideas,

support for implementation, and ideas for policy improvement. In Berkeley it was an advisory group that drafted the nutrition policy that was adopted by the school board. The programs in North Carolina and Florida, which were initiated by government agencies and farmers, did not have parental involvement and while they were still able to reach their goals of linking farms with schools, the importance of the program for the school community was not emphasized. For projects initiated by third-party non-profits, parental support has been key in influencing food service departments to make and sustain changes.

3. In addition to cultivating and working with parents and community members, work simultaneously to influence policymakers, board members, and other officials in positions of power.

School board members, superintendents, and principals can be helpful advocates and ensure that farm-to-school programs are implemented, even with an unsupportive or unenthusiastic food service department. If it is difficult to institute change from “the bottom up,” working “from the top down” is another strategy. Educating and influencing at both ends of the spectrum may prove to be very useful. The USDA’s stated support of farm-to-school programs may be helpful in catalyzing support and buy-in from local partners.

4. Engage students. Listen to them, cater to their preferences, educate them about the importance of their food decisions, and provide them opportunities to make healthy choices.

Farmers’ market salad bars, squash, collard greens, and other fruits and vegetables in the lunch menu do not impact student nutrition if students don’t actually eat these foods. A major part of the farmers’ market salad bars and the pilot project in Hartford centered on student education about nutrition, sustainable agriculture, and cooking. These educational experiences provide students the knowledge to make healthy dietary choices, while a healthy cafeteria menu allows students the opportunity to enact those choices.

In Southern California, student focus groups enabled project partners to get students’ input and taste preferences. With student participation in the outreach for the salad bar, the students themselves became excited about eating fresh fruits and vegetables.

5. Communicate directly and establish ties with food service staff. Be aware of the economic and administrative constraints under which they work. Respect their experience and expertise while retaining your vision and program goals. Consider it a long-term project to reorient

school food service to become leaders in improving child nutrition. Provide awards and incentives to food service staff for implementing farm-to-school programs, listening to students' opinions, and playing a role as potential nutrition educators in the cafeteria.

Food service departments may be resistant to changes in their operations. It is important to engage food service departments early on in project planning. A food service director can potentially make or break a program, so it is important to gain support from this individual. Additionally, food service employees have the potential to play important roles in encouraging healthy nutritional behaviors in students by acting as nutrition educators.

6. Go from pilot to institutionalized project. Consider the long-term sustainability of the project from day one. Identify barriers and opportunities to overcome these through policy and administrative changes.

A successful pilot project does not guarantee that a long-term project will be sustainable. It is important to identify barriers in the project and work toward solutions that are viable for the school district. In Hartford, suppliers were switched partly to simplify the process for food service directors, who did not want to receive multiple deliveries on different days of the week. The Occidental Community Food Security Project is working on developing an alternative brokerage to tackle similar issues. Evaluation of projects is key to identifying barriers and creating workable solutions.

7. Celebrate successes and publicize accomplishments!

Celebrating success with project partners gives acknowledgment and recognition to people that have worked hard to create change. Publicity in the form of local newspaper coverage, newscasts, or opinion articles not only spreads the word of success, it creates "legitimacy" and can inform influential people of your project. Through information-sharing and presentations at regional and national conferences, the interest in farm-to-school projects for all its multiple benefits intrigues and inspires others to lay the groundwork for projects in their own communities. Coalition-building and strategizing through networks like those created by the Community Food Security Coalition foster communication and problem-solving with other individuals and groups facing similar programmatic and policy barriers.

SECTION 3:

FARM-TO-SCHOOL POLICIES AND RECOMMENDATIONS

As we have seen in previous sections, community interest is an essential ingredient in undertaking any farm-to-school project. Yet if farm-to-school connections are to spread beyond those few cutting-edge communities where there is active and organized support, changes to state and federal policies will need to be made. Barriers will need to be removed and incentives created. USDA has demonstrated the political will in creating a Small Farms/School Meals Initiative. Existing programs will need to be redirected to support farm-to-school efforts, and a more comprehensive strategy needed in both the administrative and legislative realms. State governments will similarly need to be engaged in providing incentives to encourage schools to purchase state-grown products. This section outlines some of the key policy arenas related to farm-to-school efforts. It includes child nutrition-related programs as well as programs aimed at local food systems and farmers. The section concludes with a series of recommendations targeted at federal and state governments.

School Food Service and Nutrition Programs

School Meals Program

The US Department of Agriculture operates school lunch, school breakfast, snack and summer food service programs (see sidebar for more information on breakfast, summer food, and child care programs).

Introduction

The National School Lunch Program was created in 1946 “as a measure of national security, to safeguard the health and well-being of the nation’s children.” It was established in response to the poor nutritional condition of many young men responding to the World War II draft. Administered by the Food and Nutrition Service, the School Lunch Program, in 1998, provided meals to 26.1 million children in 96,000 schools nationwide. About 95% of elementary and secondary school students are enrolled in participating schools. The total cost for the program was \$5.46 billion in 1999.

More than 15 million children receive free or reduced-price lunches daily. To qualify for free meals, children must come from families at or below 130% of the poverty level (\$22,165 for a family of four). Students at or below 185%

of poverty level (\$31,543 for a family of four) qualify for reduced-price meals, which can not cost more than 40 cents. Children from families with incomes over 185% of poverty level must pay full-price for their meals, but these meals are still subsidized. Prices are set by local food service authorities, but the meals programs are not allowed to turn a profit.

In return for agreeing to serve meals that meet federal dietary requirements, schools receive support from USDA in two basic forms: cash reimbursements per meal and commodity foods (to be discussed below). The cash reimbursement rate for the 2000-2001 school year is \$2.02 for free meals; \$1.62 for reduced-price meals; and \$.19 for paid meals (www.frac.org; www.fns.usda.gov)

Guided by the 1995 law (PL104-149) “The School Meals Initiative,” mandating that school meals meet federal dietary guidelines, USDA has been making strides to reinvent the school meal. National dietary guidelines recommend that no more than 30% of calories comes from fat and less than 10% from saturated fat. School lunches also must meet 1/3 of the Recommended Daily Allowance (RDA) for protein, Vitamin A, Vitamin C, iron, calcium, and calories. This change was the result in part of public pressure to bring school meals more in line with current thinking on the benefits of diets rich in fruits and vegetables and low in fats and fiber. Connie Whitehead, a Team Nutrition consultant from Tennessee, stresses that to accomplish its goals of meeting dietary guidelines, school food service officials will have to buy and prepare “real food,” — food that is not overly processed, grown locally, and holds nutritional value (Whitehead).

Others see the way the school food system itself as a barrier to preparing healthful meals for children. Liz Wheeler, of the Hartford Food System and a professional chef, notes that the task of school food services is to “provide the requisite nutrients at the lowest possible price.” She sees the School Lunch Program as a “nutrient delivery system,” a far cry from the integrated educational and eating experience that school districts such as Berkeley or Santa Monica strive to provide.

To address these concerns, then Food Nutrition and Consumer Services Undersecretary Ellen Haas started an effort during the early 1990s to improve the quality of school meals and their acceptance by children. Team Nutrition provided (and continues to provide) educational materials and technical assistance to schools to “modernize” their menus, and to motivate children to make healthy food choices. Its initial high profile campaign featuring Lion King characters motivating children to eat healthfully was the subject of vehement criticism by conservative Congressional representatives. They complained of the federal government imposing its will on the diets of their constituents’ chil-

dren, underscoring the difficult nature of changes to dietary practices. Non-profit groups also criticized the administration for selling out to the Disney Corporation, supporting an inappropriate corporate presence in the classroom.

In 2000, Team Nutrition awarded contracts to 33 states as part of its training program. Its latest initiative is focused on stimulating holistic changes to the school nutrition environment, addressing such crucial issues as pouring rights, vending machines in the cafeteria, and contracts with fast food restaurants. Yet, despite the potential health and education benefits of incorporating locally grown produce into school meals, Team Nutrition materials and trainings have not focused on encouraging schools to buy from local farmers. To date, according to Vicky Urcuyo, head of Team Nutrition at USDA, Team Nutrition has not concentrated on issues related to food purchasing, although it has prepared a manual related to school gardening (Urcuyo). Nevertheless, Lucy Hicks, school nutrition coordinator for California Food Policy Advocates, and Connie Whitehead both stress the potential for Team Nutrition, with its networks and partnerships reaching thousands of schools across the country to encourage school districts to buy directly from local farmers.

The National School Lunch Program is administered by each state, typically by the Department of Education. As such, each state establishes its own set of procedures and regulations. In the area of purchasing policies, for example, California mandates that all contracts over \$25,000 must be put out for competitive bid (Taylor). In Iowa, this amount is only \$2,500, although plans are underway to develop legislation to increase this amount substantially. This low ceiling acts a disincentive for farmers to market directly with schools, as they must compete against major agri-business companies. One meat and pork producer in Northwest Iowa is developing plans to sell \$100,000 worth of ground beef and pork per year to state schools, but finds that she must compete against IBP, one of the nation's largest meatpackers (Sokolowski).

In California, the state is developing a strategic plan to increase healthy food availability in the state's school lunch programs, and provide technical assistance to school districts towards this end. The state also kicks in an additional 11-12 cents per lunch using Proposition 98 funds. State legislators and advocates are exploring the possibility of creating a bonus reimbursement for increased fruit and vegetable usage (Sharp).

Some states take a larger role in administering their school meals programs. In Mississippi, for example, the state offers schools the ability to participate in a collective purchasing program, utilizing a regional produce house for most of their produce needs. Schools are allowed to opt out of the program and purchase on their own however. The state also develops standardized menus for

schools on the program, so that they all are serving the identical meal at the same time.

This program can act as a barrier for farmers trying to sell to their local school district. In Macon, MS the Beat 4 Cooperative was stymied in its efforts to sell greens to the local schools. Collard greens are not provided by the regional produce house serving their area, nor are they included on the statewide school menus. For the Cooperative to sell to schools, it would need to convince a committee of school food service administrators charged with developing the statewide menus for the next school year not only to place on the menu collard greens, but collard greens purchased from local farms.

Farm-to-School Programs

Food, Nutrition, and Consumer Services (FNCS) and Agricultural Marketing Service (AMS) have been engaged in a partnership to support farm-to-school relationships, the *Small Farms/School Meals Initiative*. The establishment of this initiative, first staffed by Ty Couey of Food and Nutrition Service (FNS)⁵,

OTHER SCHOOL MEALS PROGRAMS

USDA operates other child nutrition programs including the School Breakfast, Summer Food Service, and Child and Adult care Food Programs. All are substantially smaller than the School Lunch Program, and all are entitlement programs with nutritional standards. The School Breakfast program, for example serves over 7.4 million children in 72,000 schools, 6.1 million of which are low-income. Approximately 40% of low income children participating in school lunch also receive a school breakfast. Congress appropriated \$1.35 billion for the School Breakfast program in 1999.

The Summer Food Service Program provides free, nutritious meals and snacks to low-income children during summer months. Summer food sites are run by approved sponsors, including school districts, local government agencies, camps, or non-profit groups. The program's cost was \$295 million in 1999, serving 2.3 million children.

The Child and Adult Care Program was founded in 1968 to provide funds to child care centers for meals and snacks. It serves 2.4 million kids daily and costing \$1.6 billion/year.

can be traced back to the personal interest of FNCS Undersecretary Shirley Watkins, who served as Director of Nutrition Services in Memphis, TN. Programmatically, the Initiative also emerged as a result of pressure on USDA to do more to support small farmers and reverse discriminatory practices against African American farmers.

As seen in the case study section, USDA provided leadership in organizing pilot projects in Florida and North Carolina. The Department has also organized several meetings and conferences that have stimulated interest in farm-to-school projects among food service directors and small farmers. In 1998, FNCS and AMS hosted two town hall meetings in North Carolina and Virginia. Kentucky and Iowa workshops were described in the case study section. The Department also developed plans to hold workshops in Ohio, New Jersey, California, and New York. The Initiative also plays an outreach and technical assistance role through the release of publications, including “Innovative Marketing Opportunities for Small Farmers: Local Schools as Customers,” which describes in detail the North Florida pilot project.

Commodity Programs

In addition to a monetary reimbursement, schools also receive surplus commodities through FNS’ Food Distribution Division. They are entitled to food equivalent to \$.15 per meal served. School food services are provided with a list of approximately 100 commodities from which they can choose. The list contains such items as frozen and canned fruits and vegetables, meats, juice, peanut butter, shortening, flour, cheese, and frozen eggs. Most of the items are substantially processed.

The federal government purchases these products as part of its efforts to remove surpluses from the marketplace in order to increase the price farmers receive. Primary emphasis is given to “agricultural marketing conditions” when deciding which products to purchase, rather than the food’s appropriateness in a school meals environment, or how it relates to dietary guidelines. Approximately 20% of the food served through the nation’s schools are commodities, with the other 80% purchased by the school district (Tropp).

According to Lucy Hicks, an ex-school food service director from Marin County, CA, one of the primary shortcomings of the commodity program is the shortage of fresh fruits and vegetables. She notes that commodity program materials are hard to use in preparing healthy meals, because of their high fat content or excessively processed nature. In her ten plus years as school food service director, she said she never received fresh vegetables through the commodity program. To its credit, USDA has recognized the imperfections of the

commodity program, and has undertaken two initiatives to incorporate more produce. The CORE initiative is making strides to reinvent the commodity program to better meet the needs of the end users. Similarly, USDA has partnered with the Department of Defense's "DoD Fresh Program," to make use of their procurement capacity in accessing fresh produce for schools (see below).

While the routine exclusion of fresh produce from the commodity program may make it more difficult for school food service officials to prepare healthy meals, the inclusion of certain products can result in fewer markets for local family-sized farmers. For example, the inclusion of dairy and meat products in the commodity system makes it more difficult for small farmers raising these products to sell them to schools. At the USDA-sponsored Farm-to-School workshop in Ames, IA in November, 2000, Iowa farmers noted this very problem. In Hartford, CT and New York City the "dumping" of Washington-state apples through the bonus commodity program (which operates sporadically and is subject to pork barrel politics) eliminated the need for the school districts to purchase locally grown fruit, as had been organized by local advocates at the time.

The commodity programs may not be a fertile marketplace for small farmers in general. USDA has set up various programs to help small businesses sell their products to the commodity program, yet their definition of small business includes companies with up to 500 employees. In general, the commodity program may pay lower prices than those typically acceptable to small farmers.

DoD Fresh

In 1994, USDA developed a partnership with DoD to enable the national school lunch program to piggyback on the Department of Defense's (DoD) existing distribution system for fresh produce (Tropp). DoD's Defense Supply Center, which is responsible for purchasing clothes, medicine and food for the nation's military has a sophisticated procurement process and network of vendors nationwide. Under this program, schools in 40 states are able to use their commodity funds to purchase fresh produce through the DoD Fresh program. The amount of funds currently available to schools through this program is \$25 million. DoD operates as a broker, taking orders from school districts, and purchasing the fruits and vegetables from produce houses (wholesalers). DoD ensures the quality of the product and handles the financial aspects of the transaction. In exchange, the schools pay DoD a 5.8% commission for these services, which is a reflection of the actual overhead costs borne by DoD to implement the Fresh Produce Program.

Out of this collaboration and USDA's Small Farm/School Meals Initiative

emerged another joint effort between USDA and DoD Fresh. In four states DoD is coordinating a program to purchase produce from local farmers for school food services. This program piggybacks on state-run commodity distribution, saving farmers transportation costs and time. In these programs, the state departments of agriculture or education are contacting schools to let them know about the crops available through this program. Schools place their orders through DoD, which also talks with local farmers, and informs them about quality and packaging requirements. The farmers deliver the product to state-run warehouses, used for other commodity distribution. The state in turn delivers the product to the schools in the context of their normal commodity distribution program. Farmers receive prices competitive with terminal market prices, according to Pat Scott, Chief of the Business Logistics/School Program Team for the Defense Supply Center. The farmers typically are small-scale, specializing in one crop, she also noted (Scott).

The program is expanding from its initial start in North Carolina, where it is well-established, and Florida (see case studies). As a result of the May, 2000 workshop USDA held in Kentucky, DoD has started operations in the state, with truckloads of pumpkins, cabbage and broccoli distributed to schools this fall. It has also begun in West Virginia, with a truckload of apples. States are added to the program at the request of USDA Food and Nutrition Service. FNS, in turn, offers the services of DoD Fresh as a complement to its day-long conferences. It plans to expand access to the services of DoD for this program in Ohio, New Jersey, and possibly Iowa, New York, and California. Ultimately, according to Ty Couey, the staff person for the Small Farms/ School Meals Initiative, local interest in farm-to-school connections determines where workshops and this type of DoD program are located (Couey).

Farmer-based Programs

Various federal programs provide assistance to farmers and communities to develop the infrastructure for direct marketing and local food systems. This section describes the key programs in this arena.

FSMIP

The Federal State Marketing Improvement Program provides \$1.2 million in grants through state departments of agriculture to develop innovative approaches in the marketing of state agricultural products. Twenty to thirty projects per year are typically funded. FSMIP funds can be requested for a range of marketing activities, including “developing and testing new or more efficient methods of processing, packaging, handling, storing, transporting, and distributing food and other agricultural products;” and “identifying prob-

lems and impediments in existing channels of trade between producers and consumers of agricultural products and devising improved marketing practices, facilities, or systems to address such problems.” Current priorities for FSMIP funds are in the areas of small farms, direct marketing, and sustainable agriculture: increasing the base of marketing research and services of small farmers; identifying and evaluating opportunities for producers to respond to new or expanding consumer demands for products; and encouraging the development of environmentally-friendly marketing channels and methods (Tropp).

Rural Business Grants

The Rural Development agency of USDA operates a number of programs to foster new enterprises and cooperatives in rural America. Some of the most relevant for farm-to-school purposes include the Rural Business Enterprise Grants (RBEG), Rural Business Opportunity Grants (RBOG), and Cooperative Services of the Rural Business Cooperative Service.

RBEG makes grants to non-profit groups, public entities, and Indian tribes to finance and facilitate development of small and emerging private business enterprises located in rural areas. Grant funds may be used for the acquisition of land, construction of buildings, equipment purchase, fees for service, start-up costs and working capital, training and technical assistance, and for revolving loan programs. RBEG is funded at \$40.7 million for FY 2001. One example of a RBEG-funded project is a grant of \$250,000 to both the University of VT and the VT Economic Development Council to fund community kitchen/incubator facilities for use by small and emerging food processing businesses in developing and testing new uses of their products, packaging/canning, and distribution activities (www.rurdev.usda.gov/rbs/busp/rbeg.htm).

The Rural Business Opportunity Grant Program, funded at \$8 million for FY 2001, provides grants to non-profits, Indian tribes, businesses and government agencies to support community planning, technical assistance and training for rural businesses. Grants can be used to support food-related micro-enterprises (Community Food Security Resource Kit).

As seen in the North Florida case study, small farmers operating independently may have trouble gaining access to school food service markets. Organized through a cooperative, they can gain access to capital and new markets. USDA's Small Farms/ School Meals Initiative has been actively promoting farmers to start cooperatives as a means of gathering sufficient product to reduce logistical and administrative problems for farmers and school districts. The Cooperative Services (CS) program of Rural Business Cooperative Service is the primary program within USDA that seeks to provide rural residents with

assistance in developing cooperative businesses and improve the operations of existing co-ops. It provides a wide range of assistance for people interested in forming new cooperatives, including initial feasibility studies, the creation of a business plan, and training to cooperative directors. CS provides technical assistance to co-ops faced with specific challenges. It also maintains a storehouse of information, which it makes available to the public through publications, a magazine, and videos (<http://www.rurdev.usda.gov/rbs/coops/cswhat.htm>).

Other USDA programs

USDA operates two other programs that can provide support for farm-to-school activities. These are the Community Food Projects Competitive Grants Program (CFP) and the Sustainable Agriculture Research and Education program (SARE). The CFP provides funding to non-profit organizations for projects that meet the food needs of low-income persons, build self-reliance of communities to meet their food needs, and are comprehensive in nature. Grants are typically for staff and direct costs, although neither equipment or start up capital are ordinarily funded. The maximum grant is \$100,000 for one year or \$250,000 over three years. The CFP grants \$2.5 million per year for about 15 to 25 projects. Since 1996, three projects have received funding to support farm-to-school programs: Occidental College, Berkeley Food Systems Project and NOFA-Vermont.

The SARE Program, funded at \$9.3 million for FY 2001, has provided competitive grants for sustainable agriculture research and education since 1988. Organized by region, SARE has provided numerous grants to non-profit organizations and farmers interested in developing new markets. In the Northeast region, SARE funding enabled the Hartford Food System (see case study) to undertake a project to market Connecticut-grown produce in Hartford schools (www.sare.org).

Policy recommendations

Following are the key policy recommendations for this report.

I. USDA to formally encourage schools to buy directly from family farmers

For schools to purchase directly from farmers they must go outside their procurement channels. Many school food service directors may not believe this is allowed. A policy statement from USDA that essentially allows—and encourages them to do so would help alleviate concerns among food service directors about the appropriateness of such contracts. This statement can be easily accomplished at no cost by the Secretary of Agriculture or Undersecretary of Food, Nutrition

and Consumer Services. Alternately, this policy statement could be enacted by Congress, through the Farm Bill or Child Nutrition reauthorization.

Recommendation:

- USDA and Congress should enact a policy statement that explicitly encourages school districts to purchase products directly from local family-scale farmers, as a means of supporting family farming and improving the quality of the food served in the school cafeteria. Such a statement could read, “Given that introducing farm-fresh foods into the school cafeteria can improve the quality of school meals, educate school children about America’s farmers and farm community, and support family farmers, school food service administrators are encouraged to purchase as much product as economically, seasonally, and logistically possible from local family farmers.”

2. Seed grants for schools to purchase local foods

Many schools do not have the necessary equipment, facilities, or staffing to prepare unprocessed foods purchased directly from local farmers. They will need financial assistance to build new kitchens, procure new salad bars, or pay for increased labor and coordination costs. With tight food service budgets, these costs can prove to be a barrier. Federal funds can play an important role in helping schools to better meet their students’ nutritional needs. The Food Service Equipment Program, a grants program administered by FNS for new school kitchen facilities and eliminated in the 1980s, should be re-instituted. This program was particularly important as it focused on equipping schools in lower income districts. For equipment, labor, outreach and organizing costs, small grants would be an important incentive, according to Rodney Taylor, school food service director of the Santa Monica-Malibu (CA) Unified School District. Such a small grants program should be housed as part of an expanded Community Food Projects Program, administered by USDA Cooperative State Research Education and Extension Service.

Recommendation:

- In the 2002 Farm Bill, Congress should create a Farm-to-School Seed Grant Fund as part of an expanded Community Food Projects Program. This grant fund would have two separate funding avenues: one for costs incurred by school districts, and the other for community groups to initiate new farm-to-school programs. Authorization and appropriation for this fund should be \$15 million/year. Eligible entities would include school districts that receive federal reimbursement for school meals programs and non-profit organizations who could help develop, implement, and/or eval-

uate such programs. In the 2002 Farm Bill, Congress should re-establish the Food Service Equipment Program. This program, administered by Food and Nutrition Services, would provide grants to school districts to build or renovate cooking and food preparation facilities with the goal of providing healthy school meals. Funding should be based on an analysis of previous program appropriations in the context of increased costs.

3. Bonus reimbursement for local foods

Because of the economies of scale, food produced by large-scale growers and purchased through conventional channels can be less expensive than that grown by small-scale family-farmers. School food services on a penny-pinching budget can find locally grown foods prohibitive in cost. Many schools would require an additional reimbursement to be able to afford purchasing such food. To address this barrier, schools purchasing locally grown food from family farmers should receive an additional reimbursement. This could take the form of a bonus of 5-10 cents per meal in which qualifying locally grown products are utilized. USDA would pass the administration of this program on to individual states. A pre-determined amount of funds should be set aside and distributed to schools through state administrators

Recommendation:

- Congress should enact legislation that creates a pilot project to provide additional reimbursement to school districts incorporating food from local family farms. These funds would not be entitlement funds. Five million dollars should be appropriated initially. So as not to compete with existing programs, these funds should to the extent possible come from “new monies” appropriated by Congress. These funds would be administered through state authorities.

4. Expand commodity purchases for farm-to-school program

The Defense Supply Center provides the crucial infrastructure and expertise to facilitate the expansion of farm-to-school efforts nationally. By piggybacking on their resources, farmers and schools can avoid many of the logistical problems related to distribution, transportation, purchasing, and quality control. DoD’s farm-to-school program should be expanded from four states currently to 25 states within the next four years. A first step toward doing so would be for DoD to set up databases of small farms interested in marketing to schools, and with the assistance of the American School Food Service Association, schools interested in buying from local family farms. In addition, a separate account for farm-to-school purchases through DoD should be established, so

that farm-to-school purchases do not impinge on the existing \$25 million in commodity funds for the DoD Fresh program.

Recommendation:

- The Agricultural Marketing Service and Food and Nutrition Service of USDA should collaborate with the DoD Fresh Produce Program to expand purchases of food from small family farmers for local schools to a national level. AMS should set aside a separate and gradually increasing source of commodity funds for this program, with the goal of equaling the amount available for the Fresh Produce Program.

5. Expand USDA Small Farm/ School Meals Initiative

USDA has played a valuable role by undertaking its Small Farm/School Meals Initiative. Through this Initiative and its outreach and technical assistance functions, it has begun to encourage schools purchasing directly from local farmers. Its strength lies in its ability to command resources and legitimacy from various educational and government institutions associated with the Department, such as land grant universities, cooperative extension, and state departments of agriculture. These resources can be key, as seen in the Kentucky example, in mobilizing substantial numbers of schools and farmers to buy and sell with each other.

To build upon success of the Initiative in North Carolina and emerging accomplishments in Kentucky, the new administration should continue the Initiative and expand it nationally. The expanded Initiative should increase its efforts to leverage additional resources for farm-to-school projects nationally, partnering with community groups, and national organizations such as the Community Food Security Coalition and the American School Food Service Association. It should also coordinate and advocate for internal (within USDA) efforts on direct marketing to schools.

Recommendation:

- The new administration should expand the Small Farm/School Meals Initiative beyond the four states in which it currently operates. The Initiative should use its leverage with government and educational institutions to mobilize additional support for farm-to-school projects.

6. Evaluate Impact of Fast Food Consumption on School Children's Diet

Many schools have been contracting out their food service operations to fast food restaurants, such as Pizza Hut and Taco Bell, or hosting soft drink machines, as a way of gaining revenue for extra-curricular activities. These restaurant chains typically serve high-fat, highly-processed foods, sugary drinks, and little in the way of fruits and vegetables. This outsourcing has been done with little research on its effects on children's diets.

Recommendation:

- USDA should contract for a study on the effects on children's diets of fast food restaurants as part of the school meals program. The study should include should include policy recommendations for Food and Nutrition Service to address this growing trend towards outsourcing.

7. Evaluate Transportation and Distribution Solutions

One of the primary barriers for farmers to sell to local school food services is getting the product to the schools. Transportation can be a time-consuming and costly endeavor, especially if the purchasing schools are located in a major metropolitan area, not immediately in the vicinity of local farms, and the distribution requires multiple drop-offs. Some solutions have been devised; the DoD program piggybacks on the state commodity distribution infrastructure, while the California programs rely on existing farmers' markets for their proximity to the schools. A thorough analysis of the transportation and distribution opportunities could provide the needed information for other school districts and farmers to resolve this issue.

Recommendation:

- USDA should undertake a study to evaluate the opportunities for reducing the logistical barriers for family farmers to sell their products directly to school food services.

8. Support for Farmers to Market Their Products to Schools

Schools often require that products be value-added, e.g. meat prepared into cuts, lettuce washed, cut and bagged. Yet, in many communities, canneries, commercial kitchens and meat processing facilities are no longer in existence. Federal support for these crucial elements of a local food system infrastructure is largely lacking or under-funded. Existing programs such as Federal State Marketing Improvement Program (FSMIP), which conducts marketing analy-

sis and pilot projects, and the Rural Community Development Grants, which funds rural cooperatives, should have their funding substantially increased. New programs designed to fund such infrastructure, such as the Campaign for Sustainable Agriculture's Agricultural Community Revitalization and Enterprise Initiative (ACRE) should be enacted. Information and coordination among federal and state agencies needs to be improved as well.

Recommendations:

- FSMIP's appropriation should be increased to \$5 million/year, up from the current \$1.4 million for FY 01.
- Funding for local food system infrastructure should be enhanced through the passage of a competitive grants program. This program should be authorized and appropriated at a figure commensurate with the demand for such infrastructure.
- USDA should strive for better coordination and communication among its diverse agencies, with the goal of increasing awareness of federal programs that can fund local food system infrastructure. The Community Food Security liaisons should be the hub of information in each state.
- The Executive Office of the President should make available federal food processing and kitchen facilities when not in use, for utilization by farmers to prepare their products for sale to school districts. States and municipal authorities should be encouraged to do the same.

9. State incentives for purchase of state-grown produce

State governments can play an important role in fostering farm-to-school programs. Given their interest in promoting local economic development, state governments can logically provide incentives or mandates that school districts buy products grown or raised within state boundaries. State government is already engaged in administering school meals programs, and provides additional resources for school food services, in the form of supplemental reimbursements or commodities. According to Ron Johnson, Management Analyst for the Food Distribution Division of Food and Nutrition Service, states provide a substantive amount of funds for commodity purchases and program administration (Johnson).

States should provide a bonus reimbursement of five to ten cents per meal for the purchase of food produced by family-scale farms within the state. In partnership with an expanded DoD farm-to-school program, they should also commit a portion of commodity funds for purchases of state-grown produce from family scale farms.

In the interests of supporting local farmers, state governments could stipulate

that school food services purchase state-grown products when available and cost-competitive.

Recommendations:

- States should consider legislation that encourages schools to buy products grown in-state by family farms.
- States should provide a bonus reimbursement of five to ten cents for meals that incorporate state-grown products grown on family farms.
- States should expand their partnerships with the DoD farm-to-school program to increase the use of commodity funds for procurement of products from family farmers.
- States should establish bidding practices that do not inhibit school districts from purchasing directly from family farmers, including setting adequately high minimum requirements for competitive bids.
- States and municipalities should make available commercial kitchen and food processing facilities, when unused, to farmers for their use in preparing foods for sale to local school food services.

California recommendations:

- The state of California should enact legislation that would provide seed grants to schools to establish salad bars with three conditions: that the school enact a food policy; agree to prioritize the purchase of food from local owner-occupied farms; and extend the program to other schools in the district if successful. This legislation should also create an incentive fund for the purchase of food from local family farmers, of 10 cents per lunch. The estimated cost for such a program is \$11.5 million per year.

CONCLUSION

It's lunchtime at Martin Luther King Elementary School and at schools around the country. Fresh seasonal produce, purchased from local farmers is integrated into the meal plan. One of the farmers will be speaking in two of the classrooms, and plans have been developed for a school garden. The farmers, working in conjunction with local community food security groups, have established a cooperative brokerage and delivery system, with funding from a new USDA program developed to enhance local food systems. The Food Services Department Director and staff work closely with regional USDA and state Department of Education officials to replicate the farm-to-school program in other schools across the region and state. Students and parents at King School have become particularly interested in organic or pesticide-free items and a dialogue has been established with local farmers to modify their production practices. The school board, gaining a better appreciation for the importance of nutrition to school children's education and health, declined to sign a pouring rights contract with a major soft drink company. Through a new curriculum that incorporates lessons learned through the cafeteria, school children have become more aware of how their food is produced, and the farm on which it was grown. Due to the enormous success of the farm-to-school program in this town, farmers and advocacy groups have begun to appeal to a number of other institutions, such as senior citizen centers and hospitals about the value of a farm-direct program. Two new farmers' markets have also opened in the community due to the growing constituency for farm fresh, locally grown produce.

A fantasy... or a goal to be achieved? The barriers are not insubstantial, but the path is paved with many opportunities for change.

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Endnotes

¹ *However, during a visit to the Farmers' Market Salad Bar at Roosevelt School in SMMUSD, renowned chef Alice Waters raved about the quality of the produce (Mascarenhas and Gottlieb, 2000). To some degree, ripeness is a subjective measure.*

² *Funds from the California Nutrition Network, educational monies from the Food Stamp Program, were crucial in supporting the pilot programs. Grant funding offset initial start-up costs such as equipment and labor.*

³ *These figures should not be compared to the figures for SMMUSD, because each district included different variables in the calculations. However, the districts are helpful for intra-district hot meal and farmers' market salad bar meal comparisons.*

⁴ *The state of California certifies farmers' markets to be grower-only markets.*

⁵ *Food, Nutrition and Consumer Services (FNCS) is the larger entity within USDA that houses the Food and Nutrition Service (FNS).*