



A Policy Options Brief by the Public Health Law Center
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Promoting Fruits and Vegetables in School

Policy Challenges and Opportunities
in a Complex Food Environment



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Executive Summary

At first blush, increasing student consumption of fruits and vegetables might not appear difficult to accomplish. Upon closer examination, however, one discovers that the school food environment is densely layered, involving numerous federal, state, and local stakeholders with conflicting needs and priorities. Most precious among those stakeholders are our children, too many of whom depend on school lunches or breakfasts as their only healthy meals of the day. Enabling all children—especially those in poverty—to acquire lifelong healthy eating habits is critical to addressing the childhood obesity epidemic.

In recent decades, the availability of unhealthy foods in school environments has escalated dramatically, as vending machines, à la carte cafeteria lines, and school stores have become common sources of junk food. When unhealthy foods compete with school meal programs, they drain student participation and, most importantly, compromise student health.

Ridding schools of unhealthy foods presents great, but not insurmountable, challenges. As the population comes face-to-face with the seriousness of childhood obesity and grapples, at the same time, with deeply troubling disparities in child poverty, the school environment is becoming a vital locus for change. The principle that school teachers, staff, and administrators have a responsibility to help children achieve their full potential by serving as role models—not just in academics, but also with regard to lifestyles—is embedded in wellness policies throughout the nation.

This policy brief examines the Minnesota school food environment, identifies challenges and limitations, and suggests promising policy opportunities in four areas where persistent challenges have impeded progress: reining in competitive foods; increasing participation in school meal programs; increasing the use of locally grown foods; and improving the ability of state agencies to support the efforts of local school districts.

Introduction

When it comes to promoting fruits and vegetables in school settings, challenges and opportunities abound in equal measure. The school food environment is rife with complexities, including the interplay between federal, state and local laws; school rules, cultures and dynamics; and multiple stakeholders who often have competing interests. Last, but not least, school authorities face the constant challenge of balancing health and nutrition against affordability—a particularly pressing problem today.

Still, this is an opportune time to examine how to improve students' access to nutritious foods—and fruits and vegetables, in particular—in school environments. A virtual revolution is underway on this topic. Nearly every aspect of school food practices is under examination by researchers, lawmakers, and advocates.¹

Initiatives, large and small, are underway at all levels of government in virtually every state, and many are yielding promising results.

Moreover, the economic crisis facing the nation is having a critical impact on the ability of schools to help meet the nutritional needs of children. Here in Minnesota, troubling racial disparities in child poverty levels underscore the importance of targeting those most in need. Nearly 14 percent of all Minnesota children live in poverty, yet poverty claims 20 percent of Minnesota's Asian children, 26 percent of Hispanic/Latino children, and a truly alarming 45 percent of non-Hispanic black children. Only Oklahoma, Louisiana and Mississippi have higher measurable poverty rates among black children.² Worse, childhood poverty is increasing, and with it, obesity rates.³ The current economic crisis will undoubtedly accelerate this trend.

Research shows that changing behaviors can have an enormous impact on health. The Centers for Disease Control and Prevention (CDC) estimates, for example, that if poor diet, physical inactivity and tobacco use were eliminated, 80 percent of heart disease and stroke, 80 percent of Type 2 diabetes and 40 percent of cancer would be prevented.⁴ But this knowledge must be translated into action. As the President of the Robert Wood Johnson Foundation recently pointed out, "research and data on their own are not enough. . . . [T]o improve health we must connect evidence-based public health and disease prevention strategies to a newly-fired political will to put them into practice at every level — local, state and federal."⁵

Investment in healthy eating strategies is essential because:

- School children spend much of their day at school;
- Nearly a third of U.S. children are overweight or obese. Obesity is a critical problem for boys and girls and for all racial and ethnic groups;
- Nutritious meals improve academic performance, increase school attendance, and reduce behavior problems;
- Low-income children, including low-income Hispanic, non-Hispanic Blacks, and Native Americans, are disproportionately affected by childhood obesity, and disparities appear to be growing;⁶
- Nearly two-thirds of children in school lunch programs, and up to 90 percent of those in breakfast programs, are from low-income households;
- Low-income children face numerous challenges accessing healthy food outside of school, due to poverty and community "food insecurity," including limited access to stores with fruits, vegetables, and other nutritious food;
- For many low-income children, school provides the only nutritious meal of the day and the most important source of nutrition.

Increasing consumption of fruits and vegetables, in particular, is important because:

- Childhood obesity results from an imbalance between physical activity (*energy expenditure*) and dietary habits (*energy consumption*) associated with low intake of fruits and vegetables;⁷
- The federal government’s Dietary Guidelines for Americans recommend that children eat at least five servings of fruits and vegetables daily;⁸
- Minnesota children consume far less than the recommended amounts of fruits and vegetables. In 2007, only 20 percent of 6th graders, 18 percent of 9th graders, and 16 percent of 12th graders consumed the recommended levels.⁹

This policy brief identifies some of the current policies and programs that shape the school food environment, points out key challenges to progress, and discusses a number of promising policy opportunities, some ripe for action and others requiring time to stew.

Federal Programs and Policies

A complex mix of federal mandates and programs forms the backbone for most state and local activities related to K-12 school environments.

The Dietary Guidelines for Americans

The 2005 Dietary Guidelines for Americans (DGA) form the scientific foundation for virtually all federal food policy initiatives, benefit programs, and nutrition education. The Guidelines, and federal programs that incorporate them, play an integral role in the development of state and local nutrition standards, food procurement practices and school wellness policies. The Guidelines recommend that adults consume two cups of fruit and 2.5 cups of vegetables daily, about twice the amount American adults actually consume. School children should eat 3.5 and 5 cups (five servings) of fruits and vegetables daily—again, about half the amount they actually eat today. Optimally, nearly half of the diet should consist of a variety of fruits and vegetables. Most children fall far short of this goal.

The DGA are revised every five years, with administrative responsibility for the revision provision alternating between the United States Department of Agriculture (USDA) and the Department of Health and Human Services (DHHS); for 2010, the USDA has the lead responsibility for making revisions, and the process is already underway.

The Coordinated School Health Program

The CDC’s Coordinated School Health Program (CSHP) is a highly-regarded model for coordinated local action to improve student health. The model has eight components: health education; physical education; health services; nutritional services; counseling and psychological services; healthy school

environment; and health promotion for staff. The CDC provides guidance and resources for developing and implementing the model, and provides limited funding to 22 states, including Minnesota, to promote adoption of the model at the local level. Minnesota does not require local authorities to adopt coordinated school health programs, but provides limited assistance to those who choose to do so.¹⁰

Local School Wellness Policies

To promote student health and reduce obesity, the federal Child Nutrition and WIC Reauthorization Act of 2004 requires every school participating in the nation’s federally-supported school lunch program to develop a local wellness policy (LWP). This mandate requires schools to set nutrition standards for all school foods and beverages, including those sold in vending machines, à la carte cafeteria lines, school stores, and elsewhere on campus, and to identify ways to increase students’ access to fruits and vegetables. School districts are required to involve a wide range of stakeholders in the development and implementation of a LWP and to include an evaluation component.

Implementation of this mandate has been decidedly uneven.¹¹ Although most school districts, including those in Minnesota, have adopted wellness policies, experts concur that many districts lack the capacity to implement them, and will need guidance and support in order to put strong, evidence-based policies into practice, evaluate implementation steps and make periodic policy revisions.¹²

The Institute of Medicine Report

At Congress’ direction, the Institute of Medicine (IOM) has made recommendations for nutrition standards for school foods to augment LWP implementation efforts, with particular attention to “competitive foods” (foods and beverages available to students outside of federally-reimbursable meal and snack programs). The Institute’s May 2007 report, *Nutrition Standards for Healthy Schools: Leading the Way Toward Healthier Youth*, emphasizes that schools should reinforce the role of federally-subsidized meals as the main source of student nutrition by limiting access to other foods. To the extent competitive foods are made available, the report recommends that they be limited to fruits, vegetables, whole grains, and non-fat or low-fat dairy products, consistent with the Dietary Guidelines for Americans.^{13, 14}

The report recommends that competitive foods (those available outside federally-reimbursable meal programs) be limited to foods containing no trans fats, no added caffeine, no more than 200 calories or 200 milligrams of sodium per portion, and deriving no more than 10 percent of their calories from saturated fats, 35 percent of calories from all fats, and 35 percent of calories from sugars. The report further recommends restricting competitive foods by dividing them into two categories:

- “Tier 1” foods and beverages—those to be encouraged—would be those providing at least one serving of fruits, vegetables or whole grains, and non-fat or low-fat dairy products. Only Tier 1 foods would be allowed in elementary and middle schools.

- “Tier 2” would include foods and beverages conforming to the Dietary Guidelines for Americans that do not meet the requirements of Tier 1. Examples would include single servings of baked potato chips, low-sodium whole wheat crackers, graham crackers, caffeine-free diet soda, and carbonated water. Tier 2 foods would be recommended only for high schools and, even then, only in limited settings, such as after-school activities and fundraisers.

The report urges policymakers to provide regulatory guidance, coordination, and financial and technical support for local adoption of these recommendations.¹⁵ In January 2008, West Virginia’s State Board of Education became the first to adopt an integrated nutrition policy based on the IOM report’s recommended nutrition standards.¹⁶

USDA Team Nutrition Program

The USDA’s Team Nutrition Program facilitates implementation of LWPs by providing limited training and technical assistance to local school districts to support incorporation of the Dietary Guidelines into their school food programs. As discussed below, several small community projects have recently been completed in Minnesota under a Team Nutrition grant to the Minnesota Department of Education.

National School Lunch Program

The National School Lunch Program (NSLP), one of 15 nutrition assistance programs run by USDA’s Food and Nutrition Service (FNS),¹⁷ is the nation’s second-largest nutrition assistance program and the largest serving schools. The NSLP provides affordable lunches to 55 percent of America’s children, serving about five billion lunches in 95 percent of all public schools and many non-profit private institutions. In 2007, the program provided nearly \$8 billion in federal cash reimbursements and about \$1 billion in commodities. More than half of the 30 million students served in 2007—approximately 18.4 million—were low-income children eligible for free or reduced-price meals; about half of all participants qualified for free lunches and another 10 percent qualified for reduced-price meals.¹⁸

By federal law, the lunches are to be nutritionally balanced; provide one-third of the Recommended Dietary Allowances for protein, vitamin A, vitamin C, iron, and calcium; and derive no more than 30 percent of their calories from fat. Participation in the program has been shown to increase students’ consumption of fruits, vegetables, and milk¹⁹ and to improve their intakes of key nutrients (vitamins A, B, C, and folate, thiamin, iron and phosphorus).²⁰ Still, many of the lunches served fail to meet the prescribed standards for fat and nutrient content. In fact, a 2005 USDA assessment found that only one in three elementary schools met the standard for saturated fat, and only one in four met the standard for total fats. Similarly, only one in five high schools met the saturated-fat standard, while only one in ten met the standard for total fats.²¹

School Breakfast Program

The USDA's School Breakfast Program (SBP) is similar to the school lunch program, albeit smaller. Like the lunch program, it provides per-meal cash reimbursements to public and non-profit private schools. Breakfasts are required to meet the Dietary Guidelines and to provide one-fourth of the recommended daily levels of key nutrients. In School Year 2006-07, nearly 10 million children received breakfasts in more than 84,000 U. S. schools and institutions.²² Federal expenditures under the program were about \$2 billion in 2006,²³ making it about one-quarter the size of the lunch program.

Although breakfast is considered the most important meal of the day, many children do not eat a nutritious breakfast, whether due to circumstances of poverty, or because they are not ready to eat when they wake, or simply because they rush to school.²⁴ Others eat so early that they are hungry again before school begins. Eating a healthy breakfast contributes greatly to academic performance.²⁵ Offering school breakfast to all students free of charge has been shown to dramatically increase student participation and reduce social stigmas that can discourage some students from participating.²⁶ Variations of so-called "universal breakfast" programs include breakfasts served in the classroom, on the bus, on breaks between classes, and during morning snack time. The school breakfast program is considered critically important, not only for nutrition and health, but also for children's readiness to learn at the start of the school day.

Despite these facts, participation rates in the breakfast program lag far behind those for the lunch program: only about 45 percent of those receiving subsidized lunches receive subsidized breakfasts.²⁷ In contrast to the lunch program, where only half of the participants are low-income children, about 82 percent of those receiving breakfasts—about 8.1 million students—are low-income students.²⁸ As discussed below, policy experts see low participation in the breakfast program as a major concern, and recommend specific steps to increase participation to at least 60 percent of that in the lunch program.²⁹

Federal Commodity Foods

The USDA buys agricultural commodities—unprocessed or partially processed foods—for use in the school lunch program. This lowers costs by permitting schools to take advantage of the federal government's purchasing power. USDA's Food and Nutrition Service (FNS) offers training and technical assistance for effective procurement and contracting practices. About 15 to 20 percent of the cost of school lunches is covered by "entitlement commodities" to which school districts are entitled under prescribed formulas. In addition, school districts receive periodic, but somewhat unpredictable, notice of the availability of "bonus commodities" that the USDA buys from time to time in response to severe crop surpluses.³⁰

The USDA has recently expanded its commodity offerings to include healthier items, like brown rice, whole grain pastas, dry kernel corn, trans-fat-free potato products, unsweetened applesauce, and low-sodium canned vegetables. State authorities choose commodities from the USDA list, guided by school districts' past preferences. Some states then contract to have the foods processed; others participate in multi-state

processing pools. Local districts also select commodities for further processing, specifying the end products, nutritional content and portion size. Distributors, too, affect the mix of foods served by determining which items they will offer. School districts also purchase non-commodity food items. The commodity program is being revised to give individual school districts expanded choices and greater responsibility for both the fiscal and nutritional consequences of their decisions.³¹

DoD Fresh

Historically, USDA's school meals commodity program has offered few fresh fruits and vegetables, in part, due to storage and transportation issues. Two relatively recent commodity programs are helping to address this gap. The first is the Department of Defense's Fresh Fruit and Vegetable Program, commonly known as "DoD Fresh." This program allows the USDA to offer schools a much wider variety of fresh produce than would otherwise be available. Under the program, USDA buys surplus fruits and vegetables from DoD, then reimburses DoD using commodity program dollars. When DoD finds itself with surpluses of fruits or vegetables, it notifies the appropriate state agency (in our case, the Minnesota Department of Education). The state agency, in turn, notifies local school district officials of the availability of the certain items; districts then decide how much, if any, of the produce to order. While the program's impact may be hampered because school districts cannot plan very far in advance for specific kinds of produce or shipment dates, DoD reports that schools are very pleased with the program,³² and policy leaders strongly support its expansion.

Fresh Fruit and Vegetable Program

The new federal Fresh Fruit and Vegetable Program, authorized by the 2008 Farm Bill, is a school snack program that is intended to familiarize young children with fruits and vegetables and instill lifelong healthy eating habits. Only fresh produce will be offered, consistent with the recent IOM report's recommendations that schools offer fresh fruits and vegetables as snacks. The program is small—less than one-hundredth the size of the school lunch program—with an initial budget of about \$50 million, increasing to \$150 million by 2011. As discussed below, Minnesota's initial allocation is about \$900,000. The program, which began as a small, yet very successful pilot initiative, has been expanded and will apply to selected elementary schools in all 50 states. Although regarded as highly promising, the program will initially serve a relatively small number of elementary schools with high concentrations of low-income students.^{33, 34, 35}

Minnesota Programs and Activities

A number of state programs and activities focus on healthy eating in Minnesota schools, many with funding from the federal programs described above. Key activities are described briefly below.

Local Wellness Policies

Most, if not all, of Minnesota's 340 school districts³⁶ have adopted school wellness policies, as required by the federal Child Nutrition and WIC Reauthorization Act of 2004; however, many of the nutrition standards reflected in these policies are believed to be adopted "in name only." The federal LWP mandate has no enforcement mechanism, and Minnesota wellness policies are reviewed only every five years as part of school food service inspections. In many districts, little may have been done to put policies into practice, and limited involvement and commitment of school and community stakeholders may be hindering more meaningful implementation.

One of the main challenges in Minnesota, as elsewhere, is to help school districts realize the full potential of the federal mandate. Various efforts are underway to equip local districts with tools and resources to improve policy implementation. Wellness policies have only been required for two school years, and Minnesota does not require them to be submitted to the state or posted publicly, complicating surveillance and evaluation. Still, the information reviewed for this report suggests that, like other states, Minnesota has a patchwork of activity underway, with some motivated school districts engaged in sophisticated and forward-looking efforts to improve school nutrition, and many others doing little or nothing. As such, substantial funding and technical assistance will be needed to improve nutrition policies and put them into practice.

School Lunch Program

According to the advocacy organization, Food Research and Action Center (FRAC), 2,117 Minnesota schools participated in the NSLP in the 2006-2007 school year, serving an average of 606,280 students every school day.³⁷ About 37 percent of children participating in the program received free or reduced-price lunches.³⁸ Minnesota schools received nearly \$101 million in federal funds under the program that year.³⁹ The depth of the current economic crisis will likely increase the proportion of students qualifying for free and reduced-price lunches.

School Breakfast Program

Minnesota law requires schools with concentrations of low-income students (those in which at least 33 percent of students qualified for free or reduced-price lunches during the second preceding school year) to

participate in the School Lunch Program;⁴⁰ the state, in turn, is required to reimburse the participating schools 30 cents for each reduced-price meal served, and 55 cents for each full-priced meal served. Participating schools are required to offer a free breakfast to all children who are eligible for free or reduced-price lunches.⁴¹ School districts may offer free breakfasts to all students, regardless of income (a concept often referred to as “universal breakfast”), and some districts have chosen to do so, particularly in large urban districts with high enrollments of low-income students who qualify for free and reduced-price lunches. Nevertheless, in the 2006-2007 school year, the Minnesota breakfast program served only 23% of the number of children participating in the lunch program.⁴² While most of the Minnesota students who participated in the school lunch program in 2006-2007 paid full price for their meals, less than a third of those eating breakfasts did so. Of the estimated 132,027 participants in the breakfast program in 2006-2007, 92,276 received free or reduced-price breakfasts. Only 1,538 schools participated in the breakfast program in that school year, compared to 2,117 that participated in the lunch program.

Suffice to say, the breakfast program is sorely under-used. Despite a sharp increase in participation over the last decade, only 34 percent of the low-income children who were eligible for the SBP in 2006-2007 actually took part in the program. For every 100 low-income Minnesota school children who received free or reduced-price lunches in 2006-2007, only 40.8 received subsidized breakfasts. According to FRAC, increasing SBP participation to 60 percent of that in the lunch program would benefit an additional 43,309 low-income children and would yield \$9,161,814 in additional federal funding for Minnesota.⁴³ Various approaches for improving participation have been piloted successfully in Minnesota, as elsewhere; they have been endorsed by experts and appear to be relatively easy to administer.⁴⁴

Fresh Fruit and Vegetable Program

Minnesota’s initial annual allocation under the new federal Fresh Fruit and Vegetable Program (FFVP) is \$892,839.⁴⁵ In all, this allocation is expected to cover about 25 to 30 selected elementary schools, each of which will be required to spend at least 90 percent of grant funds directly on fresh fruits and vegetables.⁴⁶

Team Nutrition

Under a new two-year mini-grant from USDA’s Team Nutrition Program, the Minnesota Department of Education expects to create a pilot program to support improved nutritional practices in a handful of middle schools and high schools. Because many food service personnel lack the training and experience to plan menus to meet current nutrition standards, selected participants will be trained in menu planning and improved food quality and service. Among other things, local chefs will coach food service staff in creating enlivened, nutritious menus. Teachers from the selected schools will learn to incorporate the DGA into existing curricula. School wellness policies will be implemented through classroom instruction,

school-wide campaigns, and involvement of students and parents in such activities as menu tastings and dissemination of nutritional information. The Department hopes to use lessons learned from the project to develop broader training programs.⁴⁷

Coordinated School Health Programs

Minnesota does not require the use of coordinated school health programs (CSHP),⁴⁸ but promotes the approach by providing materials, a certain level of staff support for local policy implementation efforts, and a website, <http://www.health.state.mn.us/schools/csh/index.html>.⁴⁹ Minnesota is one of 22 states receiving CSHP funding from CDC, Division of Adolescent and School Health (DASH), which helps schools develop integrated approaches to promoting healthy eating, physical activity, and tobacco-free lifestyles. DASH supports integrated efforts by monitoring youth risk behaviors, analyzing research, developing tools and best practices, and evaluating innovative programs.⁵⁰

Steps to a Healthier US

“Steps to a Healthier US” is a federal initiative⁵¹ to address chronic diseases and reduce disparities in health care by supporting innovative programs in the areas of physical inactivity, poor nutrition, and tobacco use. Under this program, the Minnesota Department of Health and four cities, Minneapolis, St. Paul, Rochester, and Willmar, have been awarded grants totaling \$7.5 million over five years. Each of the four communities has populations disproportionately affected by chronic disease and associated risk factors, and each wants to enhance local capacity to promote physical activity and healthy nutrition. Minnesota’s Departments of Education and Health provide technical assistance to the projects. All four communities have assisted in the development and implementation of local wellness policies in its schools.^{52, 53}

Minnesota Childhood Obesity 5-Year Action Plan

A statewide Childhood Obesity Steering Committee, charged with building on the 2007 recommendations of the Minnesota Task Force on Childhood Obesity, has developed a 5-Year Action Plan for obesity prevention. (The plan is in draft form as of the date of this writing, but is expected to be finalized in early 2009).⁵⁴ The Plan is expected to identify three key priorities:

- Improving school environments to support physical activity and healthy eating;
- Supporting community partnerships to address the social, economic and environmental factors that contribute to childhood obesity in specific populations; and
- Creating a state childhood obesity measurement system.

Healthy Kids, Healthy Minnesota Mini-Grants

Under a grant from the National Governors' Association, the Minnesota Department of Health awarded seven "Healthy Kids, Healthy Minnesota" mini-grants, of about \$5,000 each, to selected communities for pilot initiatives involving community gardens, walk-to-school initiatives, and other modest nutrition and physical activity projects. The projects have now been completed, and the results will be summarized by March 2009.

Health Behavior Research Program Grants

Under grants from the Health Behavior Research Program of the National Institutes of Health, the Minnesota Department of Health has sponsored a series of interventions to increase fruit and vegetable consumption and physical activity in children.⁵⁵ One example is the "High 5 Flyers Program," an elementary school lunch program that persuaded school children to eat three servings of fruits and vegetables a day by offering more fruits and vegetables, making them more appealing, encouraging children to try them, and conducting sampling events, contests and other promotional activities.⁵⁶

Farm-to-School Initiatives

Farm-to-school initiatives link schools with local farmers in ways that yield win-win outcomes—increasing students' access to fruits and vegetables, expanding farmer's market opportunities, and providing students, teachers, administrators, and parents with opportunities to deepen their appreciation of the connection between farm and table. Farm-to-school initiatives are immensely popular and are blossoming across the country. In 2004, there were some 400 programs nationwide; today, more than 2,000 programs are operating in at least 38 states.⁵⁷ Minnesota farm-to-school initiatives have been tried in Willmar, St. Paul, Morris, Little Falls, Hopkins and elsewhere. Each program has offered slightly different characteristics.

Policy Challenges

As the preceding discussion demonstrates, bits and pieces of activity are underway to improve the nutrient quality of foods in Minnesota's schools. Still, numerous challenges impede progress. Some of these challenges are local; others involve state agencies. The following barriers to change stand out.

Establishing Wellness as a Core Mission of Schools

To achieve ambitious improvements in students' diets, key stakeholders must first be convinced of the need to overhaul, or retrofit, school environments to align them with the current federal dietary guidelines. In many districts, advocates will likely need to begin by building support for the broader goal of

establishing wellness as a core value of the school or school district. Nutrition advocates, educators, and policymakers may conclude that the most viable way to reduce childhood obesity is to enact state legislation. Until such time, policy efforts are likely to remain piecemeal and somewhat disjointed.

Reining in Competitive Foods

A critical concern for authorities hoping to improve the nutritional quality of school foods is how to effectively rein in competitive foods—foods and beverages, typically of low-nutritional value, that compete with more nutritious foods and beverages offered through federally-reimbursable programs.⁵⁸ The need to rein in competitive foods cannot be overstated. Foods of low-nutritional value, including sugar-laden soft drinks, fruit drinks with low percentages of fruit juice, potato chips, french-fries and other salty snacks, candy bars and similar sugary sweets, and high-fat baked goods, contribute to over-consumption of calories and decreased intake of nutrients.⁵⁹ Easy access to unhealthy foods and beverages puts these foods in direct and continuous competition with the healthier foods offered through meal programs.

The School Health Policies and Programs Study, a nationwide CDC survey conducted every six years, provides one of the most comprehensive summaries of the ways nutrition policies are being applied in practice.⁶⁰ The 2006 study indicates that substantial improvements are needed. The authors describe the survey results as providing “a disconcerting picture of the continued, widespread availability of foods and beverages high in fat, sodium, and added sugars as à la carte choices, in vending machines, and in school stores.”⁶¹ They express concern, too, that students are receiving inconsistent messages about making healthy food choices, in that they are being taught in classrooms about good nutrition and healthy eating, while surrounded by non-nutritious foods. The survey shows, for example, that more than one-fifth of the nation’s schools allow students to buy food and beverages from vending machines or school stores during lunch period—providing disincentives for participation in the lunch program—and that almost half of high schools, and many elementary and middle schools, allow students to buy competitive foods before classes begin and throughout the school day.⁶² A recent study, which examined cross-sectional data from the third School Nutrition and Dietary Assessment (SNDA-III), concluded that U.S. school food environments become less healthy as children move to higher grades, that the great majority of secondary schools sell items à la carte in the cafeteria and in vending machines, and that both à la carte items and vended items often contain low-nutrient, energy-dense food, aka ‘junk food.’⁶³

Federal laws place few restrictions on students’ access to competitive foods. Unlike the food in federal lunch, breakfast, and snack programs, most foods in vending machines, school stores, cafeteria à la carte lines, fundraisers, and school events, are not subject to federal nutrition standards. The only competitive foods subject to federal regulation are foods of “minimal nutritional value”—those providing less than five percent of the recommended daily allowance for each of eight key nutrients. A shockingly short list of foods fits this description: soft drinks, water ices, chewing gum, and some candies, including licorice,

fondant, spun candy, and candy-coated popcorn. Even these foods are not totally banned from schools; the only meaningful restriction is that they cannot be sold in cafeterias during mealtimes.⁶⁴

In practice, such limited regulation is of little value. All other competitive foods, including candy bars, potato chips, cookies, and doughnuts, can be sold in cafeterias during meals, and all competitive foods, including those of “minimal nutritional value,” remain available everywhere else in the school throughout the day.⁶⁵ Senator Tom Harkin (D-IA), a leading sponsor of national legislation to improve children’s diets, has described this legislative loophole—allowing the sale of junk food and soft drinks in school—as a “disaster” that has “undermined” and “sabotaged” the billions of dollars spent by the USDA on nutritious school breakfasts and lunches.⁶⁶ This loophole remains open, leaving states and school districts to address the problem,⁶⁷ one that interferes with any effort to improve school nutrition or increase consumption of fruits and vegetables. Several states require stricter nutritional requirements for *all* foods available to children in school venues, but Minnesota does not.

At the school district and school level, wellness policies can be used to rein in competitive foods by setting nutritional standards for all foods in the school environment. To accomplish this goal, however, key stakeholders must participate in policy development and implementation, and must be truly committed to the process and the results. As noted, much work remains to be done to build support among stakeholders, many of whom may not consider nutritional standards a priority in comparison to students’ academic performance.

Another major obstacle to ending the pervasive presence of competitive foods is that many school administrators depend on revenues from the sale of competitive foods to defray costs of meal programs and other school activities, and are reluctant to lose this revenue source.⁶⁸ Opposition has also been expressed by students, parents, and others who sometimes object on financial and freedom-of-choice grounds. Administrators responsible for making financial ends meet must be convinced that proposed policy changes can be accomplished without sacrificing much-needed revenue.

Policies that allow continued access to competitive foods, yet require that the unhealthy competitive foods and beverages be replaced by healthy alternatives, have met with considerable success and may offer the best solutions. Recent studies show that schools can replace non-nutritious foods with healthy substitutes and still meet financial goals.⁶⁹ Nevertheless, this approach has been slow to win support. Some schools have instituted cost-saving measures—for example, out-sourcing food preparation to companies that can buy foods at lower costs, joining purchasing cooperatives, or purchasing directly from farmers.⁷⁰ These experiences show that there are viable options for eliminating unhealthy competitive foods while maintaining, or even increasing, revenues, but educational outreach will be needed to assuage concerns and build support for these alternatives.

In a 2007 review, the Center for Science in the Public Interest (CSPI) found that despite ten years of effort to address unhealthy competitive foods, “the changes occurring at the state level, while positive, are fragmented, incremental, and not happening quickly enough to reach all schools in a timely way.”⁷¹ Easy

student access to non-nutritious competitive foods must be addressed as part of any long-term plan for increasing fruit and vegetable consumption.

Increasing Participation in Meal Programs

Increasing participation in the federal school lunch and breakfast programs is seen by experts as essential for improving the nutrition of all children, especially low-income children. Schools can increase consumption of fruits, vegetables and low-fat dairy products, while both increasing student participation and helping address budgetary concerns, simply by exposing students to new foods, presenting foods in new ways, updating menus, and improving nutrition education.⁷² Strengthening the nutritional components of wellness policies and addressing the problem of competitive foods in total school environments will support these approaches.

Increasing participation in meal programs would also bring schools much-needed additional funding. Potential challenges in increasing participation may include: promoting the meal programs in ways that will engage students (for example, involving students in menu choices or taste-testing); promoting the programs in ways that involve parents; addressing possible capacity issues involved in expanding programs; deciding whether to offer all low-income students free meals; and deciding whether to institute universal (free) breakfasts or lunches for all students.

Improving the Quality of Commodity Foods

A particularly complex challenge for increasing fruit and vegetable consumption is ensuring that the produce is high quality, fresh, and varied. Addressing this challenge requires an understanding of the process by which commodities are provided for use in school lunches and points, as well, to a need to better align commodity procurement, distribution, and processing patterns with federal Dietary Guidelines.⁷³ The USDA offers school districts more than 180 commodity food items, including meats, cheeses, rice, pasta, produce and legumes valued at approximately \$1 billion annually, making commodity foods the largest single source of food for school meals.⁷⁴ Impressive though this sounds, many commodity foods are actually considered detrimental to nutritional quality because of the way they are processed before being served to children.

The processing of commodity foods tends to add salt, sugar, fat and other additives that substantially lower the nutritional value of the end products. Most fruits and vegetables received by schools are “shelf-stable” commodities—limited varieties of vegetables and fruits in frozen or canned form (often in syrup). It is estimated that more than half of the commodities offered to school meal programs are processed before being delivered to schools. Although commodity foods comprise only about 20 percent of an average school meal, they often set the tone for the entire meal, in that meals are planned around high-fat entrees, such as pizza or chicken nuggets, produced from commodity foods. No nutritional standards limit the processing of commodity foods for school meals. This is an area ripe for reform.

A recent analysis by Healthy Eating Research, a program of the Robert Wood Johnson Foundation, evaluated the impact of federal commodity programs on the nutritional value of California school meals. The researchers found that many commodity foods, once processed, fall far short of the Dietary Guidelines for Americans and, in many cases, have no more nutritional value than junk foods.⁷⁵ Also noteworthy were findings about the tremendous imbalance between the amount school districts spend on high-fat commodity foods like meats and cheeses, and the amount they spend on fruits and vegetables. According to Healthy Eating Research's recent evaluation, more than 82 percent of schools' commodity funds were spent on meats and cheeses, which tend to be high in total fats and saturated fats, while only 13 percent of funds were spent on fruits, vegetables, juices, and legumes. This contrasts sharply with the IOM report's recommendations and the Dietary Guidelines, which recommend eating 5 to 9 servings of fruits and vegetables per day and only 2 to 3 servings of meats and dairy products.

The 2008 federal Farm Bill, which increased funding for purchases of commodity fruits, vegetables, and nuts from \$200 million in Fiscal Year 2007 to \$390 million in 2008, \$393 million in 2009, \$399 million in 2010, \$403 million in 2012, and \$406 million each year thereafter, may help reduce the nutritional imbalance in commodity purchases.⁷⁶

Funding Necessary Infrastructure

Many schools and school districts lack the resources to develop and implement effective health and wellness initiatives, such as efforts to increase nutritional standards or to promote healthier eating. When deciding how to allocate scarce school resources, academic needs take clear precedence. Another systemic problem affecting many school districts is the need to better train food service personnel in the skills necessary to implement healthier dietary practices.

Engaging Stakeholders

Achieving fundamental changes in school food policies requires the ongoing committed involvement of multiple stakeholders, including school district and school administrators, school board members, teachers, food service personnel, students, parents, interested community members, community and business leaders, foundations, and advocacy organizations. Together, these stakeholders must join together to shape policies or advocate for legislative support, supplemented by technical assistance and support from state and federal agencies.

Successful implementation of strong policies at the local level also requires designation of a school district representative to be responsible for policy monitoring and implementation, as well as establishment of a standing food policy committee to support implementation efforts, address ongoing concerns, and build community relationships. Policies must be applied consistently among schools; they must also be enforceable and supported financially.

Progress toward policy change begins with an assessment of the existing wellness policy and a realistic understanding of schools' actual practices, along with an assessment of the available support systems. Excellent organizing materials for developing and implementing school nutrition policies, including mobilization of community support, communication strategies and action steps for policy adoption and implementation, are readily available. These materials cover topics like how to seek city, school board, or public health board resolutions in support policy proposals and how to develop detailed implementation strategies.

Perceptions about the value of wellness policies vary greatly among stakeholder groups. Despite their awareness of the obesity epidemic, not all school administrators and educators embrace healthy eating and physical activity as part of the core mission of schools. To the contrary, some see increased attention on school food policies, and pressure for increased in-school physical activity, as threatening distractions from schools' academic missions. Stakeholders must be convinced not only of the value of the suggested policy strategies, but also their workability. To achieve success, health and wellness policies must win acceptance as part of school's core missions and must become integrated into school cultures and plans; in addition, champions for healthier diets must be identified and supported in their roles as change agents.

Engaging parents, especially members of underserved communities, often presents additional challenges. Support is needed at the local level to involve these stakeholders. Promotional materials and communication campaigns tailored to the makeup of individual communities are needed to help reach parents and connect them with other stakeholders and resources. Engaging underserved communities is particularly critical, and must be accomplished to reduce disparities in student diets and health. Although this issue should be incorporated into wellness policy documents, it often goes unaddressed.

Improving Coordination of State Efforts

In the absence of a state-mandated Coordinated School Health Program, there is a pressing need for improved coordination of school nutrition policy efforts among Minnesota state agencies. So much is happening on different fronts in multiple state agencies that it can make one's head spin. The need for inter-agency coordination is recognized by key staff in the Departments of Health, Education and Agriculture. The Department of Health's Center for Prevention is spearheading a nascent effort to identify ways these agencies could better coordinate their respective programs, initiatives, and policy plans, and do more to combine efforts to achieve shared goals. This promising development should benefit not only the agencies themselves, but also school districts, schools, lawmakers, and non-governmental stakeholders, including policy advisors and advocates.

Technical Assistance to School Districts

Staff members at the Departments of Health and Education lack sufficient financial and human resources to provide much-needed technical assistance to school districts across the state in improving local wellness policies. Federal and state education, health, and nutrition authorities understand that schools need substantial financial and technical support to make the changes that would significantly improve their food environments, but they, too, lack the necessary resources.

Data Collection and Surveillance

Additional data collection would improve the ability of state agencies to prioritize and respond to schools' needs for assistance in implementing wellness policies and nutrition standards. A proposed state mandate for physical education in Minnesota schools, the 2009 Physical Education Bill,⁷⁷ would require districts to post their wellness policies on websites. This would provide transparency, invite increased community participation, and allow state planners to better assess gaps in nutrition services, thereby expanding opportunities to tailor recommendations and technical assistance to communities' needs.

Another challenge is to determine how many districts and schools can support on-site preparation of fresh fruits and vegetables, and which districts and schools have the greatest needs for kitchen or cafeteria upgrades to support desired programmatic changes. A related need is to accurately map the number and location of K-12 schools serving children who live in what have come to be called “food deserts”—areas where families have little or no easy access to fresh fruits and vegetables within close proximity to their homes. Yet another need is to map and assess the nutrition needs of all districts and schools serving high percentages of children who qualify for free or reduced-price meals. Addressing issues such as these would greatly enhance state staffs' ability to assist local officials and may spark local initiatives.

Policy Opportunities

A 2005 report on nutrition policy strategies, synthesizing advice from national leaders in tobacco control and other public health movements, provides a useful starting point for examining school food policy options because, as with tobacco control and other public health campaigns, advancing healthy eating policies requires multi-pronged approaches involving diverse stakeholders who are new to population-based public health initiatives.⁷⁸ The report offers four key recommendations:

- (1) Develop a menu of policy options to guide research, intervention strategies, and funding decisions, allowing the field to act on the basis of the current evidence, yet leaving room for experimentation and flexibility;
- (2) Move forward on multiple policy fronts, evaluating continuously;

- (3) Invest in environmental policy strategies, and be wary of behavior change programs couched in the language of policy change; and
- (4) Ensure that affected communities are involved as key participants in determining the policies and strategies for transforming their own communities.⁷⁹

With this advice in mind, this section will profile school food policy options in four areas where persistent challenges impede progress:

- (1) Reining in competitive foods;
- (2) Increasing participation in school meal programs;
- (3) Increasing the use of locally-grown foods; and
- (4) Improving the ability of state agencies to support local efforts.

The policy opportunities outlined below include state legislative options, along with immediate steps that can be taken locally and in state agencies.

1. Policies to Address Competitive Foods

The most effective approach for increasing fruit and vegetable consumption is arguably to eliminate or substantially restrict student access to unhealthy foods and beverages, replacing them with healthier alternatives. In recent years, many states have considered or enacted legislation to improve the nutritional quality of school foods.^{80, 81} The three most common types of legislation: (1) establish school meal nutritional standards that go beyond federal requirements (18 states);⁸² (2) set nutritional standards for competitive foods (25 states);⁸³ and (3) limit student access to competitive foods (27 states).⁸⁴ Thirteen states (Alabama, Arizona, Arkansas, California, Connecticut, Kentucky, Mississippi, Nevada, New Jersey, North Carolina, Oklahoma, South Carolina and Texas) have enacted all three types of legislation.

Additional childhood obesity policies considered or enacted in other states include: banning artificial trans fats; mandating increased physical activity or physical education in schools; measuring Body Mass Index (BMI); and requiring nutrition education. By mid-2004, twenty-three states had regulated the times and places when competitive foods can be sold in schools; as of 2008, four other states have enacted similar legislation.⁸⁵ Of the eighteen states that have enacted school meal nutrition requirements exceeding those of the USDA, only seven have included enforcement provisions, and only one has set penalties for noncompliance.

Minnesota, often a leader in public health initiatives and legislation, has no school nutrition legislation. Of the policy options described above, only one, proposing modifications to existing physical education requirements, was considered in 2007,⁸⁶ and it failed. Surprisingly, no school nutrition legislation has been considered since 2004,⁸⁷ even though many of Minnesota's 340 school districts are thought to have inadequate or unenforced wellness policies, and even though the state has important unmet needs for monitoring, data collection, and evaluation. Coupling these considerations with recent reports about

Minnesota's rising obesity rates, associated health care costs, and troubling disparities in childhood poverty rates, Minnesota policymakers may soon move to consider similar legislation.

Enactment of the legislative approaches described above—setting nutritional standards that exceed USDA requirements, applying these standards to competitive foods, and limiting access to competitive foods—would substantially improve the nutritional quality of foods and beverages in Minnesota schools. The net effect would be increased consumption of fruits and vegetables and a reduction in childhood obesity risk factors. This legislation would also yield administrative efficiencies, enabling the Minnesota Departments of Health and Education to provide more effective technical assistance, surveillance, and evaluation. Simply put, these statutory provisions would make it possible to accomplish far more, in short order, than would otherwise be possible. A floor would be set for nutrition standards. This, in turn, would create consistency from district to district, leaving flexibility for further refinements within districts.

Although Minnesota has the capacity to develop effective, science-based proposals, no coalition of supporters is in place to advocate their adoption. A coalition is in place, however, to push for strengthening Minnesota's physical education requirements, and this may offer potential for cross-over. Still, it appears that much groundwork may need to be done to build support among local stakeholders, some of whom may object to statewide proposals as threatening local control. In some districts, there may be a need to begin by building stakeholder support for wellness as a core mission of schools before trying to increase nutrition standards or limit access to competitive foods.

Until momentum builds for statewide solutions, it will remain incumbent on school districts to rein in competitive foods. In addition to the policy approaches noted above, school districts, and some states, have pursued other options, including: allowing only healthy foods to be sold or served at fundraising events; eliminating open campus policies; limiting or banning commercial advertising,⁸⁸ and prohibiting the use of foods or beverages as rewards. Whether enacted at the state level or implemented by school districts, the elements of sound policies are much the same.

Require Meal and Snack Programs to Meet or Exceed the Dietary Guidelines

Although the USDA intends to incorporate the nutrition recommendations of the 2007 IOM Report into policy guidance in 2010, those recommendations are not currently reflected in federal law,⁸⁹ prompting many states and school districts to take more immediate action. Given that the IOM standards are expected to be incorporated into formal federal guidance in the near future and that one state, West Virginia, has already incorporated them into law, these standards provide one of the best available policy models. Other potential models prescribe the specific treatment of fruits and vegetables. South Carolina, for example, requires schools to offer a minimum of four choices of fruits and vegetables per day, "including fresh fruits and vegetables in season."⁹⁰ A recent change to California law limits eligibility for special child nutrition grants to school districts and schools that demonstrate compliance with USDA or state guidelines.⁹¹

Set Nutrition Standards for Competitive Foods

Requiring competitive foods to meet the same nutrition standards as for foods in the school lunch and breakfast programs, in conjunction with the option above, would effectively eliminate nearly all unhealthy foods and beverages from school, other than those brought from home. This would ensure that all foods and beverages available to children in the total school environment are nutritious, relatively affordable options.

When crafting policies, specific reference should be made to fruits and vegetables. The State Board of Education in Arkansas, for example, requires that fruits or vegetables “should be offered daily at all points of service,”...and “should be fresh whenever possible.” In other words, policies can require that fruits and vegetables shall be made available wherever and whenever food and beverages are sold or offered at school.⁹² As an adjunct to such a policy, food service personnel could be designated to manage the sale of all foods on school grounds, with the possible exception of foods and beverages sold in fundraising activities. Placing responsibility for managing the sale of competitive foods in the hands of a food service manager can help minimize the negative impact of competitive foods on the meals programs and ensure that food and beverage decisions are nutrition-based.⁹³ The policy might also earmark profits from competitive foods for application to the food service program budget, to help balance the books or upgrade kitchen facilities, many of which are ill-equipped to prepare fresh produce.

Restrict Student Access to Competitive Foods

Restrictions on access to competitive foods would complement the preceding policy options, or could provide a stand-alone alternative where support for stricter nutrition standards is insufficient. Typically, policies restricting access to competitive foods include time of day and location restrictions. For example, vending machines could be required to be locked until the end of the school day or until the end of lunch service. Restricting student access to competitive foods—whether healthy or unhealthy—helps increase participation in the federally-reimbursed breakfast and lunch programs by limiting students’ other options. Policies of this type could also limit the scope of healthy à la carte cafeteria offerings for much the same purpose. Another approach, used primarily in high schools, is to prohibit students from leaving school grounds during the school day to purchase food or beverages (referred to as “closed campus” policies).

Ban Artificial Trans Fat

California recently enacted legislation that will prohibit its public schools from selling or serving any foods containing artificial trans fat or any foods that have been deep fried, pan fried, or flash fried, effective July 1, 2009.⁹⁴ Another new California law, enacted in 2008,⁹⁵ provides schools and school districts with a strong financial incentive to abide by certain nutrition-related requirements, including the new prohibition

against trans fats. Under this law, schools and school districts must certify their compliance with the state's Pupil Nutrition, Health, and Achievement Act of 2001. In the future, the law's restrictions will be applied to non-bulk USDA commodity foods.⁹⁶ Similarly, North Carolina prohibits public schools participating in the federal school lunch program from using cooking oils containing trans-fatty acids. North Carolina schools are also prohibited from selling processed foods containing trans-fatty acids formed during commercial processing.⁹⁷

Prohibit the Sale of Unhealthy Foods at Fundraisers and Sports Events

Sports or fundraising policies should specify, at a minimum, that unhealthy foods and beverages may not sold by such groups in conjunction with activities held on school grounds.

Prohibit Use of Unhealthy Foods As Rewards

In many schools, it has become commonplace for students to bring cakes, cookies, candies, ice cream, sodas, and other non-nutritious "treats" to distribute to classmates on birthdays, holidays, and similar occasions, and for teachers to use similar non-nutritious foods to reward student accomplishments or desirable behavior. While the nutritional impact of any individual incident is minimal, the cumulative impact may be significant. Moreover, the nearly-daily distribution of unhealthy foods in the classroom, often by the very teachers assigned to teach nutrition lessons, undermines the effort to instill healthy eating habits. Policies against the use of non-nutritious foods as rewards, or against bringing sweets to classrooms and celebrations, may at first blush appear harsh, but have, in fact, been implemented smoothly in many districts. Lists of alternative, non-food rewards are readily available online.

2. Policies to Increase Participation in Meal Programs

As already noted, increasing student participation in the federal lunch and breakfast programs is considered critical to improving the quality of students' diets. The current economic downturn may actually support this purpose: enrollment rates have increased as the economy has faltered and are likely to continue to rise until a turnaround is achieved.⁹⁸ Increased program revenues may result that could help schools purchase additional fresh fruits and vegetables for meals⁹⁹ and free up resources to renovate kitchens for storage and preparation of fresh produce.

Even with increased participation or revenues, some districts may find it difficult to cover the cost of meal programs. A new study by the School Nutrition Association estimates the average cost of a school meal at \$2.90, \$0.33 per meal more than the current federal reimbursement rate of \$2.57. The Association is calling for increased federal support, including increased meal reimbursements, semi-annual adjustment of reimbursement rates, and elimination of the reduced-price co-pay of 40 cents (thus providing entirely free meals to all students qualified for reduced-price meals).¹⁰⁰ Faced with the challenges of raising nutrition

standards, covering costs, and coping with current economic conditions, Minnesota's state agencies, local districts, and individual schools will need to explore ways to achieve program efficiencies while stimulating increased meal program participation. The policy options described earlier, limiting access to unhealthy foods, would also encourage increased participation in the meal programs. Closed campus policies would have a similar effect.

Recess Before Lunch

Recess-before-lunch policies, premised on the theory that pre-lunch exercise is likely to increase lunchtime appetites, have been adopted in school districts in Montana, Washington, and South Dakota, among other states.¹⁰¹ A pilot study in Montana schools has demonstrated that scheduling recess before lunch can result in increased nutrient intakes and a more relaxed lunch atmosphere conducive to eating and socializing. Montana's experience has shown that children return to classrooms after lunch ready to learn and exhibiting fewer behavior problems. Although the idea appears simple in theory, implementation of these policies, like so many others, takes commitment and careful planning. Nevertheless, this appears to be an example of a low-cost, relatively straightforward policy that many school districts could consider.

Incentives to Increase Participation

Incentives can be developed at the state level to stimulate increased participation in the school lunch and breakfast programs. Please see the brief discussion below on state coordination and oversight, as well as Resources in the Appendices.

Require Nutrition or Calorie Labeling on Cafeteria Menu Boards

Requiring disclosures about the calorie or nutrition content of foods and beverages as a way of fighting obesity is a recent phenomenon. New York City; Philadelphia; King County, Washington; and other local jurisdictions have recently enacted disclosure requirements for chain restaurants, as has the State of California.¹⁰² Few such proposals have focused on school settings. The National Conference of State Legislatures's report, *Summary of Trans Fat and Menu Labeling Legislation*,¹⁰³ however, identifies two unsuccessful proposals that have done so:

- South Carolina House Bill 4707 of 2008 would have required the schools of Greenville County, South Carolina, to publish nutrition information for all their food offerings whenever disseminating school menu information.
- Massachusetts House Bill 467 of 2007 would have required Massachusetts public schools to post nutrition information on posters or charts beside school vending machines. The information would also have been provided on the packages of all products inside the machines, and would have

disclosed grams of fat, sugar content, total calories, and other information, to help students understand the products' nutritional value.

While research for this report did not include searching for a local jurisdiction that has required nutritional disclosures in schools, the rationale for such an approach would be similar to the rationale behind the growing number of local restaurant disclosure laws. Although any such policy would need to be drafted carefully,¹⁰⁴ this appears to be a valid option for encouraging healthier choices.

Seek Public Resolutions Encouraging School District Action

Seeking support for a specific policy proposal from a city, county, school board, or community public health board, in the form of a resolution, provides a public communication platform that could help considerably to build broad support for this, or any other, policy being considered. Resolution proposals provide public forums for raising awareness of the issue via public hearings on the resolutions and opportunities for local media coverage. This publicity, and the formal support of other governmental bodies, would increase momentum in support of the proposal and increase the pressure for action.

3. Policies to Support Farm-to-School Programs and Use of Locally-Grown Food

Burgeoning farm-to-school programs show tremendous promise for changing the way children think about eating their “fruits and veggies.” This is because farm-to-school (sometimes referred to as “F2S”) programs not only support making connections between farmers and schools, but also provide rich interactive, exploratory learning opportunities for introducing students of all ages and grade levels to a wide range of local produce and teaching them to appreciate how food is grown and prepared. Some programs teach students about local food systems, including field trips not only to farms, but also to food processors.

Considerable policy activity on this topic is taking place at every governmental level. National policy efforts are focused, in part, on increasing funding for federal fresh fruit and vegetable programs. The 2008 Farm Bill not only increased funding for such programs, but also clarified language to allow states and school districts to use geographic preferences to encourage local food purchases.¹⁰⁵ A new national network is convening periodic conferences, and regional policy networks are in place, too, including the Great Lakes Farm to School Network, which encompasses the states of Minnesota, Wisconsin, Illinois, Indiana, Michigan and Ohio. None of the states in the Great Lakes region has enacted farm-to-school legislation. By September 2008, however, statewide programs were operating in 18 states outside the Midwest, many of them created by state legislatures, with strong bipartisan support.¹⁰⁶

At present, more than 2,000 local programs are operating in 39 states.¹⁰⁷ Within Minnesota, local farm-to-school programs have been introduced in the Hopkins, Little Falls, Morris, St. Paul, Wayzata, Willmar and Winona school districts. Non-government organizations that have supported Minnesota farm-to-school activity include Cornercopia Organic Student Farm, Pride of the Prairie, University of Minnesota

West Central Regional Partnership, the F2S Program of the University of Minnesota Extension, and the White Earth Land Recovery Project. The University of Minnesota's F2S extension program is preparing a toolkit that will provide school staff with resources on twelve local foods to facilitate start-up policy efforts.

Promote and Implement Farm-to-School Programs

At the local level, policy advocacy should focus on adding language promoting farm-to-school programs into school districts' local wellness policies. Sample language for this is readily available.¹⁰⁸ To develop a local program and establish the policies to support it, advocates need to: build a base of community support; identify and connect farmers with the district or specific schools; understand the district's produce needs, purchasing practices, and vendors; consider the available produce options and their seasons; and address logistical concerns, including issues involved in transporting and processing the produce (for example, vegetables requiring minimal processing, are needed in schools that lack prep kitchens).

Components of a good local policy include clear commitments to: promote farm-to-school connections; purchase locally-grown food (whether from local farms or school or community gardens) as a top priority, based on availability and acceptability; establish relationships with local farms; encourage farmers and farm workers to visit classrooms and arrange for students to visit farms and farm-related businesses to provide hands-on experiential learning; coordinate school menus with purchases of local produce; and work with local produce distributors and others to coordinate bids and improve distribution mechanisms in order to increase the amount of products purchased from local farms.

State legislation for some of these purposes is in place in California, Colorado, Connecticut, Delaware, Iowa, Kentucky, Maryland, Massachusetts, Montana, New Mexico, New York, Oklahoma, Oregon, Pennsylvania, Tennessee, Vermont, Virginia and Washington, and it is likely that other states will follow suit, given the strength of bipartisan support within many of the above states. Washington, for example, adopted strong legislation in 2008, with almost unanimous support. Its legislation will link farmers and schools, identify curricula, establish a fresh fruit and vegetable grant program, and require revision of food procurement laws to ease purchasing of local foods. The legislation will also benefit other sectors of the local food economy, including food processors and distributors.¹⁰⁹

Connecticut's legislation¹¹⁰ requires the state Department of Education to sponsor promotional events, encourage schools to purchase Connecticut-grown foods and provide outreach, guidance and training on the benefits of incorporating local farm products into school menus. Maryland¹¹¹ gives a 5 percent price preference to Maryland-grown products in school procurement practices and requires¹¹² its Department of Agriculture to promote the sale of Maryland farm products to schools, create a database of farmers interested in selling to schools, establish a week-long promotion, and provide experiential learning for students.¹¹³

4. State Coordination and Oversight

As discussed earlier, the Minnesota Departments of Education, Health, and Agriculture recognize the need to improve inter-agency coordination in order to improve technical support and guidance for school officials. An informal group of representatives has begun meeting and may be expanded to include non-governmental experts. Some states have formalized similar efforts by creating “food policy councils” or “farm-to-school” councils. Iowa, for example, has both.¹¹⁴ Formalization of Minnesota’s fledgling coordination effort might provide additional efficiencies or spur additional activity.

The following policies would enhance the ability of the Departments of Health and Education to monitor and evaluate the implementation of local wellness policies:

- Require districts to report annually on progress toward the nutrition goals established in their wellness policies;
- Require that policies be reported to the Department of Education and posted on district websites.

Other state measures to strengthen participation in meal programs and promote healthier eating might include:

- Appropriation of one-time funding for retrofitting of school kitchens for on-site storage and preparation of fresh fruits and vegetables;
- State training of food service directors to make healthy choices among commodity-based products offered by food processors, and of processors to encourage healthier products;
- Increasing meal reimbursement rates for school districts meeting state-specified nutrition standards or state-specified lunch program participation rates, as is done under California’s new trans fat prohibition, discussed above.

Conclusion

In reviewing the regulatory structures now in place at the federal, state, and local levels regarding the application of nutritional standards to the total school environment, one cannot help but be struck by both the volume of work already undertaken—on many different planes—and the volume of work that remains. Economic woes aside, this report demonstrates that many meaningful policy options could be pursued in the immediate future, involving both state and local stakeholders, to increase student consumption of healthy foods in Minnesota.

Endnotes

- ¹ The following two articles, one chronicling the history of school food policy and remarking on future needs, and the other detailing the role of law in the Coordinated School Health Program, are particularly noteworthy for providing comprehensive overviews of the subjects they address. See Susan Lynn Roberts, Note, *School Food: Does the Future Call for New Food Policy or Can the Old Still Hold True?*, 7 DRAKE J. OF AGRIC. L. 588 (2002); Ctrs. for Law & the Public's Health, *Law and Coordinated School Health Program*, 78 (No. 2) J. OF SCH. HEALTH 83 (2008) [hereinafter SCHOOL HEALTH].
- ² "Children in poverty" measures the percentage of related persons under age 18 living in a household that is below the poverty threshold. The 2007 poverty threshold, as established by the U.S. Census Bureau for a household of four people, including two children, was approximately \$21,736 in household income. The 2008 rankings are based on 2007 data from the March 2008 Current Population Survey of the U.S. Census Bureau. UNITED HEALTH FOUND., AMERICA'S HEALTH RANKINGS: HEALTH DETERMINANTS (2008), <http://www.americashealthrankings.org/2008/determinants.html>.
In 2006, 152,000 Minnesota children lived in poverty, including 15percent of children, approximately 50,000, under the age of 5. "Among the 33 states that had enough black children to produce reliable estimates, only 3 states – Oklahoma, Louisiana and Mississippi – had higher poverty rates among black children than Minnesota." CHILDREN'S DEF. FUND MINN., FROM "GETTING BY" TO "GETTING AHEAD," MINNESOTA KIDS COUNT DATA BOOK 3-4 (2008).
- ³ United Health Foundation's annual state health rankings, released in December 2008, indicate that Minnesota's childhood poverty rate is increasing. Minnesota has slipped to No. 4 from No. 2 position in 2007, after having held the No. 1 ranking for the prior four years. One of two key indicators causing the decline is increased child poverty (the other is a decrease in public health spending). The report shows that the percentage of Minnesota children living in poverty has now climbed to nearly 14 percent, and that Minnesota's obesity rates have continued to climb as well, increasing from 25 to 26 percent of the total population since last year, and up to 10 percent from 1990. See UNITED HEALTH FOUND., AMERICA'S HEALTH RANKINGS (2008), www.americashealthrankings.org/2008/pdfs/mn.pdf [hereinafter HEALTH RANKINGS].
- ⁴ George Mensah, *Global and Domestic Health Priorities: Spotlight on Chronic Disease*, National Business Group on Health Webinar, May 23, 2006; HEALTH RANKINGS, *supra* note 3, at n.1.
- ⁵ Risa Lavizzo-Mourey, *Foreword: It's Time to Connect What We Know with What We Do* to HEALTH RANKINGS, *supra* note 3, available at <http://www.americashealthrankings.org/2008/foreword.html>.
- ⁶ JEFFREY KOPLAN, CATHARYN LIVERMAN & VIVICA KRAAK, INSTITUTE OF MEDICINE, PREVENTING CHILDHOOD OBESITY: HEALTH IN THE BALANCE (2004).
- ⁷ See MINN. DEP'T OF HEALTH, CHRONIC DISEASE RISK REDUCTION UNIT, PRELIMINARY ENVIRONMENTAL SCAN OF OBESITY PREVENTION REPORT 10 (2008) [hereinafter PRELIMINARY REPORT] (citing U.S. DEP'T OF HEALTH & HUMAN SERVS. & U.S. DEP'T OF AGRIC., DIETARY GUIDELINES FOR AMERICANS (6th ed. 2005) [hereinafter DIETARY GUIDELINES]).
- ⁸ DIETARY GUIDELINES, *supra* note 7.
- ⁹ PRELIMINARY REPORT, *supra* note 7, at 10 (citing MINN. DEP'T OF EDUC., MINNESOTA STUDENT SURVEY (2007)).
- ¹⁰ In 2000, Tennessee became the first state to legislate and fund a Coordinated School Health Program for all of its public schools. The nutritional services component of the Tennessee program establishes nutritional requirements for all foods sold in schools, not just foods served in the federally-reimbursable school meal and snack programs. Given that current federal nutrition standards and governing regulations lag behind the 2005 dietary guidelines and, worse yet, may still be years away from being formally updated, the value of statewide legislation such as this cannot be overstated.
- ¹¹ INST. OF MED. OF THE NAT'L ACADS., NUTRITION STANDARDS FOR FOODS IN SCHOOLS: LEADING THE WAY TOWARD HEALTHIER YOUTH 1-8 (2007) [hereinafter FOODS IN SCHOOLS].
- ¹² Alicia Moag-Stahlberg, Nora Howley & Lorry Luscri, *A National Snapshot of Local School Wellness Policies*, 78 J. SCH. HEALTH 562 (2008).
- ¹³ FOODS IN SCHOOLS, *supra* note 11, at 1-2.
- ¹⁴ *Id.* at 8. The committee on nutrition standards for foods in schools included Rosemary Dederichs, Director of the Food Services Department for the Minneapolis School District, and Mary T. Story, Professor, Division of Epidemiology and Community Health, School of Public Health, University of Minnesota.
- ¹⁵ *Id.* at 2-7.
- ¹⁶ Nat'l Ass'n of State Bds. of Educ., *Science-Based Nutrition Standards for Foods in Schools*, 16 NASBE POLICY UPDATE, Jan. 2008, at 1.
- ¹⁷ Other school-related programs include the School Breakfast Program, the Summer Food Service Program (SFSP), and the Child and Adult Care Food Program (CACFP). The SFSP extends the availability of free breakfasts and lunches into the summer months for children in low-income areas to help meet their nutritional needs during a portion of the summer when school is not in session. The CACFP, under NSLP legislation, reimburses schools for healthful snacks given to students in educational after-school programs.
- ¹⁸ FOOD RESEARCH ACTION CENTER, STATE OF THE STATES: 2008, FRAC'S PROFILE OF FOOD & NUTRITION PROGRAMS ACROSS THE NATION (2008) [hereinafter STATE OF THE STATES], available at http://www.frac.org/pdf/SOS_2008_withcover_nov08.pdf.

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- ¹⁹ U.S. Dep't of Agric.: National School Lunch Program Quick Facts, http://www.fns.usda.gov/cga/FactSheets/NSLP_Quick_Facts.htm (last visited Dec. 30, 2008).
- ²⁰ Constance Newman, Katherine Ralston & Annette Clauson, *Balancing Nutrition, Participation, and Cost in the National School Lunch Program*, 6 AMBER WAVES, Sept. 2008, at 35, available at <http://www.ers.usda.gov/AmberWaves/September08/PDF/BalancingNSLP.pdf>.
- ²¹ *Id.*
- ²² FOOD RESEARCH AND ACTION CENTER, SCHOOL BREAKFAST SCORECARD 2007 (Dec. 2007) [hereinafter SCHOOL BREAKFAST SCORECARD], available at http://www.frac.org/pdf/SBP_2007.pdf.
- ²³ STATE OF THE STATES, *supra* note 18, at United States 1.
- ²⁴ *Id.* at 2. According to U.S. Census Bureau data, only 35 percent parents of children aged 6-11 report eating breakfast every day with their children. *Id.*
- ²⁵ SCHOOL BREAKFAST SCORECARD, *supra* note 22, at 2. Studies show that children who eat breakfast at school outperform students who don't on standardized tests. *Id.*
- ²⁶ FOOD RESEARCH ACTION CENTER, UNIVERSAL SCHOOL BREAKFAST PROGRAMS http://www.frac.org/pdf/universal_sbp.PDF (last visited Dec. 30, 2008). FRAC reports that studies show students who eat breakfast at school: increase their math and reading scores; increase their speed and memory in cognitive tests; eat more fruit, drink more milk; and consume a wider variety of foods than those who don't eat breakfast or have breakfast at home. *Id.*
- ²⁷ SCHOOL BREAKFAST SCORECARD, *supra* note 22, at 4.
- ²⁸ *Id.* at 3.
- ²⁹ Many programs have been piloted to increase participation in the SBP. A program approach that has found widespread support among advocacy organizations and experts involves the provision of “*universal breakfast*”—programs offering free breakfast to all students regardless of income. Studies show that offering school breakfast programs to all students free of charge can dramatically increase student participation and reduce social stigmas that can discourage some low-income children from participating. Different variations have been instituted in school districts across the country, including programs that allow students to eat on the bus to school, on-the-go between classes, or in the classroom. Schools that offer breakfast in the classroom have reported decreases in tardiness, discipline, and psychological problems, as well as increases in attendance and attentiveness.
- Also useful are certain federal regulatory options (Provisions 2 and 3), which allow schools participating in the SBP and NSLP to reduce paperwork and simplify the logistics of running their school meal programs by serving meals to all school students at no charge. These regulatory options are in use in many SBPs, including some in Minnesota. The reduction in paperwork and logistical coordination can sometimes help school districts save enough money to cover the increased costs associated with subsidizing all school meals. These programs appear to work particularly well in schools that serve a large proportion of students who are eligible for free or reduced price meals.
- ³⁰ FOOD RESEARCH ACTION CENTER, COMMODITY FOODS AND THE NUTRITIONAL QUALITY OF THE NATIONAL SCHOOL LUNCH PROGRAM: HISTORICAL ROLE, CURRENT OPERATIONS, AND FUTURE POTENTIAL 7 (Sept. 2008), available at <http://www.frac.org/pdf/commodities08.pdf>.
- ³¹ *Id.*
- ³² U.S. Dep't of Agric., Food & Nutrition Service, Department of Defense Fresh Fruit and Vegetable Program Overview, http://www.fns.usda.gov/fdd/programs/dod/DoD_FreshFruitandVegetableProgram.pdf (last visited Dec. 30, 2008).
- ³³ See U.S. DEP'T OF AGRIC., FOOD & NUTRITION SERVICE, INTERIM REPORT ON THE FRESH FRUIT AND VEGETABLE PROGRAM FISCAL YEAR 2007, available at http://www.fns.usda.gov/cnd/FFVP/FFVP_07Report.pdf.
- ³⁴ See U.S. Dep't Agric., Food & Nutrition Service, Fresh Fruit and Vegetable Program, <http://www.fns.usda.gov/cnd/FFVP/FFVPdefault.htm> (last visited Dec. 30, 2008). According to this new program FNS fact sheet and the 2007 Interim Report on the pilot project, the FFVP is consistent with and supports the recommendations of a recent report by the Institute of Medicine to provide healthier snack choices in schools, including fruits and vegetables. *Id.*
- ³⁵ Richard B. Russell National School Lunch Act, 42 U.S.C. §§ 1751- 1769i (2008) (as amended through Pub. Law 110-246), available at <http://agriculture.senate.gov/Legislation/Compilations/FNS/NSLA.pdf>.
- ³⁶ TIM STROM, MINNESOTA SCHOOL FINANCE: A GUIDE FOR LEGISLATORS (2008), available at <http://www.house.leg.state.mn.us/hrd/pubs/mnschfin.pdf>.
- ³⁷ STATE OF THE STATES, *supra* note 18, at Minn. 1. According to the Food Research and Action Center, 225,975 Minnesota children received free or reduced-price meals in School Year 2006-2007, while 380,304 paid full price for lunches. *Id.*
- ³⁸ *Id.* Minnesota income and poverty data for 2007 indicate that 20.5 percent (1,066,323/5,197,621) of the state's population lived below 185 percent of the federal poverty level; 9.5 percent of all households were food insecure; and another 3.7 percent of all households were very low food secure, based on three-year averages from 2005-07. *Id.*
- ³⁹ *Id.*

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- 40 MINN. STAT. § 124D.117 subd. 1 (2008).
- 41 MINN. STAT. § 124D.1158 subd. 3 (2008).
- 42 STATE OF THE STATES, *supra* note 18, at Minn. 1. About 132,027 Minnesota school children participated in the Minnesota school breakfast program (based on daily averages of the number of meals served during the nine months of the school year)—about 23 percent of the number of children who participated in the national school lunch program. *Id.*
- 43 SCHOOL BREAKFAST SCORECARD, *supra* note 22. Free and reduced-price participation in the Minnesota school breakfast program has increased by 87.8 percent over the last ten years. *Id.*
- 44 A successful program piloted during the administration of former Minnesota Governor Jesse Ventura, “Fast Break to Learning School Breakfast,” offered breakfast to all students at selected schools at little or no charge and provided service in cafeterias, as well as in classrooms, before and after the start of the school day. As of FY 2004, the program was combined into the regular SBP. STROM, *supra* note 36, at 91.
- 45 News Release, U.S. Dep’t of Agric., No. 0208.08 (Aug. 6, 2008) (on file with author).
- 46 Telephone Interview with Becky Leschner, Minn. FNS Director, Minn. Dep’t of Education (Dec. 18, 2008).
- 47 Information about this initiative, which is currently under development, is available from Barbara Kalina, FNS Compliance & Assistance Supervisor, Minnesota Department of Education, Barbara.Kalina@state.mn.us.
- 48 A state-mandated CSHP was recommended as an obesity-prevention strategy by the Minnesota Task Force on Childhood Obesity in its report of January 2007, but the recommendation has not been adopted.
- 49 Minn. Dep’t Health, Coordinated School Health, Linking Health and Learning, <http://www.health.state.mn.us/schools/csh/index.html> (last visited Dec. 30, 2008).
- 50 Centers for Disease Control & Prevention, Division of Adolescent and School Health: School Health Programs, About Healthy Youth!, Schools: The Right Place for a Healthy Start, <http://www.cdc.gov/HealthyYouth/about/index.htm> (last visited July 15, 2009).
- 51 “Steps to a Healthier US” was launched by the U.S. Department of Health and Human Services in 2003. The initiative provided a total of \$59 million to 24 communities in 7 states, including four in Minnesota, to support innovative community-based programs to prevent and control chronic diseases by addressing physical inactivity, poor nutrition, and tobacco use.
- 52 Telephone Interview with Martha Roberts, Supervisor, Chronic Disease Risk Reduction Unit, Minn. Dep’t of Health, (Dec. 30, 2008).
- 53 PRELIMINARY REPORT, *supra* note 7.
- 54 Minn. Childhood Obesity Steering Comm., Minn. Dep’t of Health, Minnesota Childhood Obesity Prevention Action Plan 2008 (Dec. 29, 2008) (unpublished final draft, accessed via e-mail correspondence and cited with permission of Martha Roberts, Minn. Dep’t Health, Chronic Disease Risk Reduction Unit (Dec.30, 2008)).
- 55 PRELIMINARY REPORT, *supra* note 7.
- 56 See Minn. Dep’t of Health, Health Behavior Research, High 5 Flyers Program, <http://www.health.state.mn.us/divs/hpcd/chp/healthbehaviorresearch/index.html> (last visited Dec. 30, 2008).
- 57 STACY KISH, COOPERATIVE STATE RESEARCH EDUC., & EXTENSION SERVICE, U.S. DEP’T OF AGRIC., FROM FARM TO SCHOOL: IMPROVING SMALL FARM VIABILITY AND SCHOOL MEALS (2008).
- 58 Newman, *supra* note 20.
- 59 FOOD RESEARCH ACTION CENTER, CHILD NUTRITION POLICY BRIEF, COMPETITIVE FOODS IN SCHOOLS 1-2, <http://www.frac.org/pdf/cncompfoods.PDF> (last visited Dec. 30, 2008).
- 60 Terrence P. O’Toole, Susan Anderson, Clare Miller & Joanne Guthrie, *Nutrition Services and Foods and Beverages Available at School: Results from the School Health Policies and Programs Study 2006*, 77 J. SCH. HEALTH 500 (2007).
- 61 *Id.* at 518.
- 62 *Id.* at 519.
- 63 Daniel M. Finkelstein, Elaine L. Hill & Robert C. Whitaker, *School Food Environments and Policies in US Public Schools*, 122 PEDIATRICS e251 (2008).
- 64 See SCHOOL HEALTH, *supra* note 1, at 95-96.
- 65 *Id.* at 96.
- 66 Senator Tom Harkin, Remarks at the Action for Healthy Kids Healthy Schools Summit (Sept. 27, 2005) (transcript available at <http://www.reapfoodgroup.org/farmtoschool/mmsd.food.policy.links/WHL.Website.Sen%20HARKIN%20school%20food%20comments.9.05.pdf>).
- 67 In the absence of regulatory authority over competitive foods, the USDA periodically briefs Congress on the need for greater regulatory authority and assists states and school districts by providing technical assistance and links to other resources.

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- 68 See Newman, *supra* note 20, at 37.
- 69 *Id.*
- 70 *Id.*
- 71 TRUST FOR AMERICA'S HEALTH, F AS IN FAT 2008: HOW OBESITY POLICIES ARE FAILING IN AMERICA 47 n. 200 (Aug. 2008), available at <http://healthyamericans.org/reports/obesity2008/Obesity2008Report.pdf>.
- 72 KATHERINE RALSTON ET AL., NATIONAL SCHOOL LUNCH PROGRAM: BACKGROUND, TRENDS AND ISSUES (2008), available at <http://www.ers.usda.gov/Publications/ERR61/ERR61.pdf>.
- 73 ROBERT WOOD JOHNSON FOUNDATION, POLICY HIGHLIGHT: IMPACT OF FEDERAL COMMODITY PROGRAMS ON SCHOOL MEAL NUTRITION (2008), available at <http://www.rwjf.org/files/research/3484.34381.pdf>.
- 74 *Id.*
- 75 *Id.*
- 76 Goeffrey Becker, *Farm and Food Support Under USDA's Section 32 Programs*, CRS Report for Congress, (RS20235; updated Feb. 23, 2007).
- 77 The Minnesota Physical Education Bill, which is anticipated to be introduced during the 2009 legislative session, would amend Minnesota Statutes sections 120B.021, 120B.023, and 120B.024.
- 78 LORI DORFMAN, PHIL WILBUR, ELENA LINGAS, KATIE WOODRUFF, AND LAWRENCE WALLACK, ACCELERATING POLICY ON NUTRITION: LESSONS FROM TOBACCO, ALCOHOL, FIREARMS, AND TRAFFIC SAFETY (2005), available at http://www.bmsg.org/pdfs/BMSG_AccelerationReport.pdf.
- 79 *Id.* at 11.
- 80 NAT'L CONFERENCE OF STATE LEGISLATORS, CHILDHOOD OBESITY – 2007 UPDATE OF LEGISLATIVE POLICY OPTIONS (Dec. 2007). See TRUST FOR AMERICA'S HEALTH, *supra* note 71.
- 81 See TRUST FOR AMERICA'S HEALTH, *supra* note 71.
- 82 *Id.*
- 83 *Id.*
- 84 *Id.*
- 85 *Id.* at 8.
- 86 H.F. 3865, 2007 Leg., 85th Reg. Sess. (Minn. 2008).
- 87 S.F. 2167, 2003 Leg., 83rd Reg. Sess. (Minn. 2004).
- 88 Legal and policy issues related to commercial marketing to children in school settings have been intentionally omitted from this policy brief. This topic, due to its complexity, calls for a separate analysis.
- 89 See TRUST FOR AMERICA'S HEALTH, *supra* note 71, at 44.
- 90 S.C. CODE ANN. § 59-10-310 (2005).
- 91 S.B. 132, 2007-2008 S., Reg. Sess. (Cal. 2008).
- 92 MARK VALLIANATOS, HEALTHY SCHOOL FOOD POLICIES: A CHECKLIST, VERSION 1.5 2 n. 13 (2005) (citing CAL. EDUC. CODE § 38085 (2009)), available at http://departments.oxy.edu/uepi/cfj/publications/healthy_school_food_policies_05.pdf.
- 93 JAMES BOGDEN ET AL., NAT'L ASS'N OF STATE BDS. OF EDUC., FIT, HEALTHY AND READY TO LEARN: A SCHOOL HEALTH POLICY GUIDE E-31 (2000), available at <http://www.nasbe.org/index.php/shs/53-shs-resources/396-fit-healthy-and-ready-to-learn-a-school-health-policy-guide>.
- 94 S.B. 490, 2007-2008 S., Reg. Sess. (Cal. 2007) (codified at CAL. EDUC. CODE § 49431.7).
- 95 S.B. 80, 2007-2008 S., Reg. Sess. (Cal. 2008).
- 96 The California law will apply to commodities when Congress' 2009 reauthorization of the USDA National School Lunch Program is complete, or when ingredient and nutrient information becomes available for all USDA commodity foods, whichever occurs first.
- 97 S.B. 961, 2005 Gen. Assem., Reg. Sess. (N.C. 2005) (codified at N.C. GEN. STAT. § 115C-264).
- 98 SCHOOL NUTRITION ASSOCIATION, SAVED BY THE LUNCH BELL: AS ECONOMY SINKS, SCHOOL NUTRITION PROGRAM PARTICIPATION RISES, AN ANALYSIS OF SCHOOL NUTRITION PROGRAM PARTICIPATION DURING THE 2008/09 SCHOOL YEAR (2008), available at http://www.schoolnutrition.org/uploadedFiles/School_Nutrition/101_News/MediaCenter/PressReleases/Press_Release_Articles/Press_Releases/SavedbytheLunchBell.pdf.
- 99 See Newman, *supra* note 20.
- 100 See SCHOOL NUTRITION ASSOCIATION, *supra* note 98, at 7.

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- ¹⁰¹ A link to Montana’s recess-before-lunch policy toolkit is in the List of References in the report’s Appendices.
- ¹⁰² See companion policy brief on menu labeling by the Public Health Law Center.
- ¹⁰³ National Conference of State Legislatures: Trans Fat and Menu Labeling Legislation, Oct. 2008, <http://www.ncsl.org/programs/health/transfatmenulabelingbills.htm> (last visited July 15, 2009).
- ¹⁰⁴ The requirement contained in the 2007 Massachusetts legislative proposal cited in the text, mandating labeling on packages of vending machine food products, is almost certainly barred by preemptive provisions of the federal Nutrition Labeling and Education Act.
- ¹⁰⁵ See companion policy brief on the 2008 Farm Bill prepared by the Public Health Law Center.
- ¹⁰⁶ Douglas Shinkle, *State Farm-to-School Policies*, 16 Legisbrief 31 (Aug./Sept. 2008) at 1.
- ¹⁰⁷ *Id.*
- ¹⁰⁸ See Resources in the Appendices to this report for links to more information.
- ¹⁰⁹ Shinkle, *supra* note 106, at 1.
- ¹¹⁰ H.B. 5847, 2006 Gen. Assem., Reg. Sess. (Conn. 2006) (Public Act No. 06-135) (to be codified at CONN. GEN. STAT. §10-262h).
- ¹¹¹ H.B. 883, 2006 Gen. Assem., Reg. Sess. (Md. 2006) (to be codified at MD. CODE ANN. § 14-407).
- ¹¹² S.B. 158, 2008 Gen. Assem., Reg. Sess. (Md. 2008).
- ¹¹³ COMMUNITY FOOD SERVICE COALITION, FARM TO SCHOOL LEGISLATION: A STATE BY STATE LISTING (UNDATED), <http://www.foodsecurity.org/policy/StateByStateFarmtoSchoolLegislation.pdf> (last visited Dec. 30, 2008).
- ¹¹⁴ The Iowa Food Policy Council is based at Drake Agricultural Law Center in Des Moines, Iowa, <http://www.iowafoodpolicy.org/>. The Iowa Farm-to-School Program is a program of the Iowa Department of Agriculture and Land Stewardship. Additional information is available at <http://www.agriculture.state.ia.us/AgDiversification/farmToSchoolProgram.asp>.