UNIVERSITY OF HAWAI'I SYSTEM REPORT

REPORT TO THE 2010 LEGISLATURE

Report on the Feasibility of Establishing a Farm to School Program in Hawaii's Public Schools

SCR 121 S.D.1 H.D.1 (2009)

December 2009

A Report to the Twenty-Sixth Legislature
In Response to SCR121 SD1 HD1, SLH 2009

Senate Concurrent Resolution No. 121 S.D. 1, H.D. 1, Session Laws of Hawai'i 2009, requests the University of Hawai'i College of Tropical Agriculture and Human Resources, in cooperation with the Department of Agriculture, Department of Education, and the Hawai'i Farm Bureau Federation, to convene a working group of stakeholders to consider the feasibility of establishing a farm-to-school program in Hawai'i's public schools.

Contributors to this Report:

College of Tropical Agriculture and Human Resources, University of Hawai'i at Mānoa
State Department of Agriculture
State Department of Education
State Department of Health
Hawai'i Farm Bureau Federation
Kokua Hawai'i Foundation
'Aina in the Schools
Hawai'i Farmer's Union
Malama Kauai
Hawai'i Ecotourism
MA'O Organic Farm
Punahou School
Slow Food O'ahu
Slow Food Maui
Center for Health Research, Hawai'i
Punahou School
Hawai'i Nutrition and Physical Activity Coalition,University of Hawai'i at Mānoa
Kapiolani Community College Culinary Arts Program
Interested Stakeholders

Editorial Responsibility: Douglas L. Vincent, Department of Human Nutrition, Food and Animal Sciences, CTAHR, (808) 956-8393, vincent@hawaii.edu

Introduction and Background

This report is divided into three sections – the current status of farm-to-school programs in Hawai'i; the feasibility of farm-to-school programs; and concluding remarks and opportunities for change. Appended to the report are the stakeholder inputs on the feasibility of farm-to-school programs in Hawai'i (Appendix I) and a listing of existing state-wide farm-to-school programs nationally (Appendix II).

We live in a society where our food system provides us with a vast variety of inexpensive food that too often undermines the health of our own bodies, the communities in which we live, and the natural environment on which we depend. Nowhere else is this more

deeply manifested than in the lives of our children. According to the National Survey of Children's Health for Hawai'i Hawai'i[1], 17.3% and 11.2% of school age children are overweight and obese, respectively. Nationally, only 2% of school-aged children meet the Food Guide Pyramid serving recommendations of all five major food groups and 84% of school-aged children eat too much fat[2]. Just over half (51%) eat less than one serving of fruit a day, and 29% eat less than one serving a day of vegetables that are not fried. One in five students aged 15-18 years skips breakfast. One in every 3 children born in the year 2000 will develop diabetes.

According to the 2003 Food Security Task Report[3] over 19% of Hawai'i residents live in food insecure households, and most of those households contain school-aged children.

Food insecurity also contributes to obesity rates. Perhaps, most critically, many children have limited exposure to the wide range of healthy, local foods that are available and frequently have no idea where food comes from or how it is prepared. As a result, they are susceptible to the ubiquitous marketing and easy availability of "junk" food that surround them. In both the classroom and the cafeteria, schools have too often reproduced and reinforced rather than challenged this food environment. School meals are an important way to turn around our nation's burgeoning obesity epidemic.

Hawai´i's farmers face numerous challenges to make a living off the land. The farmer's share of every food dollar has dropped below 19 cents; in Hawai'i it is even less. Farmers struggle to break even, much less make a profit. Although the 2007 Census of Agriculture for Hawai'i indicates that there are more farms than in 2002, the land in agriculture and average farm size has decreased.[4] More troubling is the average age of farmers in Hawai'i of 58.6 years, higher than the national average of 57 years.

Farm-to-school programs offer solutions that can help alter the course of both of these trends. School meals form a potentially lucrative market, estimated at more than $10 billion annually nationally. The Hawai´i' Department of Education manages the public school system for Hawai'i, the 10th largest school system in the United States, educating 177,871 students in 289 schools (regular, special and charter). The DOE School Food Services serves 24 million meals annually to 80% of all students. Breakfast is available for all students at 96% of the schools. Children from low-income families may qualify for free or reduced price breakfast and lunch. The addition of locally produced fruits and vegetables to school meals could not only help the local farm economy but also bring high quality, local produce to Hawai'i's school children.

Farm-to-school programs can ensure that our children eat the highest quality food that not only nourishes children's bodies immediately, but also knowledge that enhances their educational experience and cultivates long-term healthy habits. According to Center for Food & Justice, operational Farm-to-school programs exist in 43 states, in 2065 school districts. Farm-to-school encompasses many types of programs and school experiences such as planting and tending school gardens, educating children about nutrition, and of course, purchasing fresh, locally-grown farm products. They are a win-win for children, farmers, communities, educators, parents and the environment.

1) **Consider** *"the feasibility of establishing a farm-to-school program in Hawai'i's public schools statewide."* While farm-to-school programs can encompass a variety of school experiences, such as planting and tending school gardens, educating children about nutrition, agriculture and the environment, it was believed that the intent of this legislation was to determine the feasibility of a farm-to-school programs that involve the Department of Education School Food Service Program purchase of locally produced fruits and vegetables under auspices of the National School Lunch Program (NSLP). Without a change of the purchasing practices of the Department of Education, and potentially, legislation, establishing a **state-wide farm-to-school** program that involves **state-wide procurement** of locally produced fruits and vegetables for the entire program **this effort is not feasible**. To be fair to the Department of Education School Food Services Program, the size of the entire system makes this difficult. The federal regulations regarding food subsidies related to free and reduced cost meals as part of the NSLP hamper change. However, with creativity and cooperation, improvements can be made. The U.S. Department of Agriculture Food and Nutrition Service, in its 2005 guide "Eat Smart – Farm Fresh! A guide to buying and serving locally grown produce in school meals[5]"

Potential Distribution Models for Farm-to-School

- **Food service staff buys direct from individual farmers –** Many school food service directors from around the country have initiated purchasing relationships with farmers, and buy directly from those farmers. There are many benefits to this procurement method, as food service staff can: request specific products in the form they need them; work out details and issues without a middle man; become familiar with what the farmer grows, and even request that farmers plant specific items for them. One additional advantage is that buying from individual farmers may exempt the purchase from bidding requirements as the total amount may be below the required bid minimum. The disadvantages of this procurement method become apparent if food service staff is buying from a number of farmers. Buying from individual farmers entails increased administration and paperwork. This can be quite overwhelming for a food service director who has been ordering all or most of their produce from one broker. There would be a transition from making one phone call to order product, to multiple calls, multiple invoices, and coordinating multiple deliveries. In addition, a broker is generally able to provide a greater variety of produce than farmers, who are selling only what, is in season and what they grow. **In Hawai'i, unless individual schools or school complexes in a particular area are granted purchasing authority to purchase from local farmers in their particular area, then this is not a likely scenario.**

- **School food service works with a farmer cooperative --** In this model, farmers in a formal cooperative, or informal network, pool their resources to develop a group distribution strategy. While some farmer coops are focused

solely on production, others are also involved in the marketing and distribution of farm products. Buying from a cooperative helps the school food service director reduce the time spent on the administrative tasks involved in ordering, receiving orders, invoicing and payment. In this way, ordering is done through one person representing multiple farmers and in some cases; one delivery is made for multiple farmers. Another advantage is that cooperatives, or informal networks, can generally offer a wider variety of produce and a more consistent supply than one individual farmer. Some farmer cooperatives have also been able to purchase cold storage facilities, a truck for delivery, and processing facilities to produce value-added products. This is a particularly helpful strategy as cafeteria staff greatly appreciates receiving a bag of broccoli florets instead of a whole head of broccoli. Many school district food services do not have the labor or equipment necessary to do this kind of minimal processing. **The biggest disadvantage of this model in Hawai‘i is that the number of successful farmer cooperatives in the state is limited to few. Moreover, many of the local cooperatives either deal with high end, high value crops or gather or distribute crops for export. Cooperatives also market to high end customers such as restaurants as opposed to institutions. In addition, some cooperatives may focus on organic or sustainable farms and not wish to mix produce with conventionally grown produce. Legislation to favor the creation of agricultural cooperatives might encourage expansion of cooperatives that focus on school lunch programs.**

- **School food service purchases regional products at the farmers market --** This strategy relies on farmers markets for purchasing locally grown products. In this scenario, the food service staff contact the farmer one or two days in advance of the farmers' market, placing their order by facsimile machine or phone. The farmer then brings that order to the farmers' market, in addition to what he or she plans to sell that day through the market. In most cases, schools use their own truck and driver, and a buyer from the school or district goes to the local farmers' market to pick up the pre-ordered product. Buying directly from a farmer at a farmers' market has the advantage of working face-to-face with growers, who know their competition is at the market as well. It also gives food service staff the opportunity to inspect the product quality, and see first-hand what other products are available. Farmers benefit from this arrangement since they can make two farm deliveries in one location - one to the farmers' market, and one to the school. This can also help to lower the price for the product, as only one trip is needed for both deliveries. However, buying at farmers’ markets can also be time consuming, as this kind of shopping involves much more labor than a phone call to a distributor. **Our markets are either for higher priced niche produces or resellers of produce bought from a wholesaler (People’s Open Markets on Oahu). In Hawai‘i, we do have year round farmers markets but again, the size of our school system prohibits these small scale interactions with local farmers markets. Unless school complexes in a particular area are**

granted the authority to purchase from local farmers at farmers markets, then it is unlikely that is a feasible option. In addition, direct marketing by farmers at farmers markets does represent a problem to school purchasing due the uncertainty of food safety certifications of the farms.

- **School food service orders locally grown food through a traditional wholesaler --** In this scenario, food service works with a distributor who purchases from local farms. Since food service directors already purchase from brokers or distributors, this allows them to maintain an existing relationship, as well as purchase other items that farmers are not able to provide. This method also allows for centralized billing, delivery and payment - but cuts farmers out of the communication loop with the food service director. The major disadvantage of buying through a distributor is that it is difficult to know how diligent the distributor is being in attempting to source local product. Buying from local farmers may or may not be a top priority for a distributor who tries to fill an order with the least expensive product available. Unless the distributor is already aware of local farms, he or she may not be willing to make the additional effort to find them. In some instances, wholesalers have worked very well with local farmers. One step food service can take is to request access to the buying records of the broker, showing the origins of the product. This can also be a requirement written into an agreement with the broker. In this model it is still important that food service staff familiarize themselves with the availability and seasonality of the products in their region in order to make reasonable requests of the wholesaler who may be responsible for sourcing the products. **In Hawai‘i, due to the size of the existing school food system, the majority of the purchasing is done through local wholesalers, who strive to provide the freshest produce at the least cost. Some work with local farmers but the main focus of these wholesalers is to fill orders, often not considering the source of the product. Providing incentives to wholesalers/distributors through purchasing agreements with local farmers or cooperatives might encourage wholesalers to buy local produce and distribute it to the school system.**

- **School food service purchases through DoD Fresh Program --**The Department of Defense's (DoD) Produce Business Unit provides fresh fruits and vegetables worldwide to federal and military institutions. To capitalize on DoD's large-scale buying power, USDA FNS entered into an agreement with DoD in 1994 to buy and distribute fresh fruits and vegetables to schools in eight states. The produce was paid for with commodity entitlement funds, and enabled schools to take advantage of DoD's expertise in food procurement and distribution at a nominal cost. In recent years, DoD has worked with states to establish farm-to-school programs. Utilizing existing DoD Fresh networks, DoD establishes farm-to-school partnerships between local producers/producer organizations, state Departments of Agriculture and Education, and school food service personnel, as appropriate. **In Hawai‘i, the**

Department of Education Office of Child Nutrition Programs operates the Department of Defense Fresh Fruit and Vegetables programs in cooperation with the military commissaries. The military commissaries in Hawai'i do purchase $122 million annually of food and goods from Hawai'i businesses. Of that $7 million was locally produced. However, for raw produce, the DoD has a contract with Coast Produce (from Los Angeles, CA) to provide fruits and vegetables to the Hawai'i commissaries. Coast Produce has alliances with Southern California growers and imports produce from Asia through its Seoul, Korea gateway; it is uncertain whether local producers contribute to the supply chain. Encouraging the DoD to purchase more Hawai'i local agricultural products might help Hawai'i farmers to participate in this fresh fruit and vegetable program.

Alternative Farm-to-School Programs

If the goal is to provide outlets to get additional locally produced fruits and vegetables into school food programs, there are other programs besides the NSLP that might permit purchasing local produce. This would take the farm-to-school program out of the lunchroom. These also may be opportunities with creativity to develop educational programs to improve nutrition and health of children. Other programs, managed through the Department of Education Child Nutrition Program that might provide opportunities for purchasing of local produce, such as the following:

- Summer Food Service Program (SFSP). The SFSP is the single largest Federal resource available for local organizations that want to combine a feeding program with local organizations with a summer activity program with schools.
- Child and Adult Care Food Program (CACFP) is a Federal program that provides healthy meals and snacks to children and adults receiving day care. It plays a vital role in improving the quality of day care and making it more affordable for many low-income families. CACFP reimburses participating centers and day care homes for their meal costs. It is administered at the Federal level by the Food and Nutrition Service (FNS), an agency of the U.S. Department of Agriculture. The State education or health department administers CACFP, in most States. Independent centers and sponsoring organizations enter into agreements with their State agencies to operate the program.
- School Breakfast Program (SBP) provides cash assistance to States to operate nonprofit breakfast programs in schools and residential childcare institutions. The program is administered at the Federal level by FNS. State education agencies administer the SBP at the State level, and local school food authorities operate it in schools.
- Afternoon Snack Programs are provided by the Child and Adult Care Food Program, the National School Lunch Program and the Summer Food Service Program.

Other Alternative Farm-to-School Programs

In spite of the challenges faced by creating a statewide farm-to-school program within the Department of Education, alternative farm-to-school programs exist in Hawai'i. These programs involve and rely upon strong support from local school administrators, food service managers, teachers, parents and students. They may also rely upon external support from non-profit organizations. Some examples follow:

- 'AINA IS: Actively Integrating Nutrition & Agriculture in Schools is a farm-to-school program dedicated to connecting children to their land, waters and food in order to grow a healthier future for Hawai'i. 'AINA IS is currently running farm-to-school pilot programs in ten (10) O'ahu elementary schools: Aikahi, Waialee, Wheeler, Makaha, Ahuimanu, Samuel Kamakau PC, Waikiki, Ala Wai, Sunset Beach, and Waialua. The goals of the program, sponsored by Kokua Hawai'i Foundation, are to:
  - Address childhood health issues like obesity/overweight by fostering health eating habits
  - Encourage environmental stewardship by connecting children to the land that sustains them
  - Create an institutional market for Hawai'i farmers and their produce

- Moanalua Elementary School – the Moanalua Elementary School not only feeds its students but also Moanalua Intermediate and High School. Its school food program was featured in the national "Cooks for Kids" via the National Food Service Management Institute at the University of Mississippi. Its creative cafeteria manager, Bobby Chinaka of the Department of Education uses local foods. Students and teachers have developed a school garden and incorporated this as part of their learning.

- MA'O Organic Farms is an organic farm located in Waianae, Oahu. MA'O has two farm-to-school projects cooperating with Waianae Intermediate and High Schools. MA'O in cooperation with Waianae High School staff created a half-acre on-campus organic garden and is the first Hawai'i public school to have a certified organic garden. The students have developed creative entrepreneurial ways to share their veggies with students, teachers and families and regularly sell produce at the Waianae farmers market.

- The Kohala Center, through its Hawai'i Island School Garden Network (HISGN) and since 2007, works with over 45 public, charter and private schools on the Hawai'i Island. The goal is to help island schools build gardening and agricultural programs that will significantly contribute to the increased consumption of locally produced foods by involving students, their school communities and their family networks in food production. The programs of HISGN creates hands-on living laboratories for students to deepen their understanding of the sciences and nutrition, incorporating social studies, language arts and math into meaningful learning activities in an outdoor setting.

Consider: **"Student Preference and Nutritional Requirements."**

While the current DOE school lunch program has appropriate nutritional requirements and follow federal guidelines as defined by the USDA[6], there are no local data available on student preferences and plate waste. Nationally, studies have found that NSLP participation continues to be associated with over-consumption of fat, saturated fat, and sodium[78], with less than a single serving of fruit/juice (0.60) and non-high fat vegetable (0.47) per meal.[9] There is evidence, however, that participation in farm-to-school programs, in particular salad bars, does increase fruit and vegetable consumption.

- A 2003 study by the USDA Economic Research Service[10] found that there are several strategies for increasing the appeal of school meals to children, such as increasing choices and student input into food service decisions. For example, **in Oregon, as fruit and vegetable choices were increased to 6 items per day, food waste decreased by as much as 36%**). Increased use of **local produce increases school meal participation** and consumption of salad and other vegetables.

- In a study[1112] published in 2001, a team of researchers from UCLA evaluated fourteen low-income schools in the Los Angeles Unified School District and found a high percentage of overweight and obese students and a small amount of fruits and vegetables consumed each day. Two years later, the UCLA team evaluated a group of students from three of the fourteen schools that had participated in the original study. The three schools had, in the previous year, developed farm-to-school salad bar programs as part of the intervention related to the study. This study showed a **significant increase in consumption of fruits and vegetables servings from an average of 2.8 to 4.2 per day**. A majority of children interviewed (56%) ate from the salad bar everyday or on most days. Calories (kcal) from fat as well as cholesterol intake decreased.

- A University of California-Davis study[13] of children's food choices after a farm-to-school salad bar program was initiated found that **salad bars raised fruit and vegetable consumption**. Children took more than the USDA minimum servings and chose more variety than from the regular lunch line (hot lunch). When many kinds of fruits and vegetables are offered, children take them, especially when options are fresh.

- In a pilot program[14] conducted in 9 elementary schools and 2 middle schools in Santa Monica – Malibu, CA, it was found on average, more than three times the number of children **selected the farmers market salad bar option** than in the previous year when the produce used was pre-cut and purchased through a produce broker. At the same time the **unit cost of the farmers market salad bar meal was less** than the hot meal option as well as the previous years non farmers market salad bar items.

While there is strong evidence that farm-to-school program provision of fresh fruits and vegetables through salad bars does increase fruit and vegetable consumption, fitting salad bars into the five week DOE school menu can present problems for a statewide program.

Consider: "Infrastructure needs and costs of implementing the farm-to-school program statewide."

It was impossible to assess the infrastructure needs and costs of implementing the farm-to-school program statewide. If the farm-to-school program includes the establishment of a salad bar, costs for individual salad bar set ups are estimated to be $550 each per salad bar cart for and another $200 each for pans and utensils. An ice machine or ice packs are also required to keep the produce cool. Training of DOE food service personnel is estimated to be $200,000. Cafeteria preparation of a salad bar purchased from farmers markets should have a full service kitchen, with capacity to storage space for farmers market produce. If whole produce is received, then preparation time is increased for washing and cutting produce. In a report to the Los Angeles United School District about a salad bar pilot program, individual costs for salad bar meals can be comparable to the hot meal.[15] In a pilot program at Waialae Elementary School, the cost per meal, including milk and the other 4 components of the meal averages out to $1.75. To implement a state farm-to-school program, the costs would have to be established based upon the requirements for each cafeteria. However, if implemented as pilot programs by regional complex or by individual schools, costs could be minimized.

Consider: "Financial aspects of implementing the program including price differentials between locally produced and imported products."

This represents a serious conundrum to setting up a state-wide farm-to-school program. Many Hawai'i farmers grow for the high-end, value-added market, and do not necessarily see the economic advantage to serve the school food service market. Certainly, fruits like melons, papayas, bananas and vegetables like tomatoes, cabbage, sweet corn and lettuce are grown in abundance in Hawai'i and could contribute to the school lunch programs or other school food programs, if farmers could be guaranteed the market and the price. Because of the need to supply the entire school food service system, there hasn't been sufficient capacity among Hawai'i farmers to meet this need.[16]. If pilot programs or preferential purchasing agreements could be legislated, then regional farmers could be mobilized to supply a regional school complex or individual schools within a community.

Consider: "Rules and potential compliance issues relating to procurement and federal school food programs."

The DOE is faced with federal requirements established by the National School Lunch Program (7 C.F.R. Part 1250). School lunches must meet Federal nutrition requirements, but decisions about what specific foods to serve and how they are prepared are made the local school food authorities. The Hawai'i DOE establishes a 5 week menu that rotates among school complexes. Current regulations require schools to meet the Dietary Guidelines for Americans, which recommend that no more than 30 percent of an individual's calories come from fat, and less than 10 percent from saturated fat. Regulations also establish a standard for school meals to provide one-third of the

Recommended Daily Allowances of protein, Vitamin A, Vitamin C, iron, calcium, and calories.

USDA has made a commitment to improve the nutritional quality of all school meals. The Department works with state and local school food authorities through the Nutrition Education and Training Program and Team Nutrition initiative to teach and motivate children to make healthy food choices, and to provide school food service staff with training and technical support. Any child at a participating school may purchase a meal through the National School Lunch Program. Children from families with incomes at or below 130 percent of the poverty level (currently $21,710 for a family of four) are eligible for free meals. Those between 130 percent and 185 percent of the poverty level (currently $30,895 for a family of four) are eligible for reduced-price meals, for which students can be charged no more than 40 cents. Children from families with incomes over 185 percent of poverty pay a full price, though their meals are still subsidized to some extent. Local school food authorities set their own prices for full-price meals. Most of what the USDA provides to Hawai‘i schools in the NSLP comes in the form of a cash reimbursement for each meal served. Reimbursement rates for schools that have at least 60% of the students qualify for free and reduced meals are:

Free meals:	$3.17
Reduced price meals	$2.77
Paid meals	$0.32

Reimbursements are about 2 cents less per meal, if the school does not meet the 60% threshold. According to the DOE, when wages and other costs are factored in, the actual cost per meal in the school lunch program is $4.40. For the school year, 2010 – 2011, fully paid school lunches will likely go up to $2.00 per meal. The state will continue to subsidize meals. In addition to cash reimbursements, schools are entitled by law to receive commodity foods, called entitlement foods, at a value of 15 cents for each meal served. Schools can also get “bonus” commodities as they are available from surplus stocks.

USDA does not require schools to serve or not serve any particular foods. School meals must meet Federal nutrition requirements, but decisions about what foods to serve and how they are prepared are made by local school food authorities.

Impact of Act 175 on farm-to-school programs. The revision of the Hawai‘i Act 175 that permits a 15% preference for class II agricultural products for state purchasing is a challenge to potential farm-to-school programs. When Hawai‘i Island Farm Bureau members were surveyed in 2009, only one of 650 indicated that they sell to the State. That farmers have not actively sought participation in this market presents an impediment to farm-to-school programs. Moreover, a concern was raised that while local food wholesalers can and do sell to the State, there is no incentive for the wholesalers to purchase local produce.

Concluding Remarks

While Farm-to-School programs are a "Win-Win" for improving the nutrition and health of local school children and by providing new markets for local farmers, the structural impediments cluster around three central concerns: **costs** (i.e., schools are under budgetary strictures to provide meals to children at a reasonable cost; the potentially higher costs involved in growing local produce and the competition from large mainland produce sellers represent a challenge to the DOE). The second impediment is **procurement** (i.e., the centralized school system, the greater ease and preference of purchasing from a few vendors maximizes the efficiency of ordering and delivery). The third impediment is **supply** (i.e., farmers need to provide sufficient volumes of product consistently over the school year in ready-to-use form; many Hawai'i farmers do not consider growing for the school food service market. It begs the question whether farmers have been actively recruited to serve this market. A peripheral concern is that, while not required by regulation, more farmers need to be food-safety GAP certified to provide assurance to purchasers of the product. This provides additional cost to farmers of about $250/year for the audit. In spite of changes in Act 175, some farmers do not necessarily see the incentive to grow for this market, but the opportunity has not been widely promulgated.

Opportunities for Change

Decentralize DOE Food Services - to provide opportunities for individual school complexes or communities to work with farmers in their local community. This would allow local farmers to work closely with local area schools and build relationships. This could expand beyond food service procurement through farm tours, field trips and addition of curricular materials.

Encourage cooperation among farmers growing for this market through tax incentives, preferences or to form local cooperatives or through centralized gathering and processing facilities. Take the burden off the school cafeterias by funding centralized food processing facilities/certified kitchens to process produce for delivery to local schools.

Farm-to-School programs can **go beyond the lunchroom** – by incorporating local produce through providing healthy snacks or in the after school programs. Restrictions are not as onerous for these programs. Children are often hungry at times **other than the lunch period and that hunger renders them receptive to trying new or unaccustomed foods** and developing new healthy habits. The FFV snack programs, the after school programs can provide an opportunity to develop effective ways of incorporating local produce without the burden of dealing with the centralized food service system. This might create conflicts in using cafeterias or centralized facilities to prepare local produce. While "linking the land to the lunchroom" is laudable – it may not be feasible, given our state-wide centralized school system.

Providing opportunities for school gardens and mechanisms to recover costs provide important educational opportunities. Discussions need to be held on developing standards for school gardens, and support for development of curricular materials at

appropriate grade levels that would incorporate farm-to-school programs as part of the curriculum.

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Appendix I: Hawai‘i Farm-to-School Feasibility Study Stakeholder Inputs

On November 16 and 23, 2009, stakeholders were invited to present stakeholder input on the feasibility of establishing a state-wide farm-to-school program. The meetings were held on the UH-Manoa campus with inputs from the neighbor islands received by Polycom (Maui and Hawai‘i Island) and by conference call. A SWOT (strengths, weaknesses, opportunities, threats) analysis was conducted. The following are the comments provided in the stakeholder meetings.

Strengths

November 16, 2009

Reducing oil consumption
reconnecting youth with culinary heritage and cultural heritage of Hawai‘i
raises children's immunity
creates job opportunities
nutrition- teach youth where food comes from
sustainability- education venues and school gardens
revitalize local agriculture and economy
minimize carbon footprint
keep money in state
build stronger community
food security
improve children's health
reduce waste
improve consciousness of relationship with land
fresh seasonal food
empower rural communities
creation of food distribution service
preservation of Ag land

November 23, 2009

providing local, healthy options
high quality
short distance makes fresh foods
exposing children to how food grows and tastes
create connection between schools, children and agriculture
decrease in health costs
very high interest among schools and families
good timing and high profile issue currently

reduce introduction of invasive species if using local
more palatable food for children
physical activity from garden work by students
potential to enhance curriculum and recruit young farmers
reduced reliance on importation associated with negative environmental impact
(i.e.. Carbon footprint)
food security for the state of HI
improved nutritional status and security
support environmentally responsible local farming
building relationships between farmers and community
year round growing and harvesting seasons
willingness of farmers to grow to meet demand
protect Hawai‘i agricultural lands
assurance to farmers that produce will be used
stimulates local economy by creating jobs, revenue, etc
reduce reliance on imported food
creating revenue streams for local farmers
children's pride in eating real food
multi-ethnic eating patterns offers creativity
increase opportunities for self-reliance in at-risk communities
opportunity to share multi-culturalism through foods
long growing season=year round food
strengthening local economy

Weaknesses

November 16, 2009

food safety issues both farm and cafeteria
training to deal with food
note enough farms/farmers
Logistics
understanding USDA procurement requirements
lack of labor to process
preferred contracts
nutrition guidelines I.e. canned corn=fresh corn
lack of certified kitchens
increase labor costs
lack of processing facilities
farmland highly speculated for development
weather conditions/natural disaster

cost to middleman
production harvest time and school in session
contamination soil and water
equipment cost added
lack of composting
lack of infrastructure to meet demand
DOE institutional obstacles
cost
lack of communication between farms and distribution services
vested interest in status quo
children's familiarity with local food
lack of requirements to have certain foods in cafeteria
labor issues with cafeteria staff
implement federal subsidy
lack of long term leases

November 23, 2009

food safety issues for in-school gardens/food systems
centralized procurement of food products for school system and distribution
not enough funding from state and federal
need for resources available to educators
challenge of food processing centralization
to make ready for consumption
getting produce from farm to school- means to distribute
food safety in schools and on farms
not enough food safety certified farms
culinary training not required for DOE food service workers and supervisors
requirement of centralized menu planning
not enough farmers
understanding procurement rules
unionized work force
lack of parent support and education
quality grade requirements (of food)
school farms are time-consuming
water source availability
designated Ag land
product availability list needs to be made
lack of inter-island transport system
attractive nuisance law-liability issues for school gardens
alignment of purchasing between schools and farms

lack of Hawai‘i large scale F2S model
limited products at this time- cannot meet demands
adapting best practices
cafeterias not equipped

Opportunities

November 16, 2009

reduce waste of produce
educate students on local food production and eating right
lower future healthcare cost
ground theory of food security in practice
increase preferences for fresh foods
expand economy beyond tourism
increase opportunities to learn outside classroom
increase opportunities for recent migrant community to eat traditional diets
reduce brain drain through job opportunities
conserve water
opportunity to fulfill goals of Hawai‘i 2050
job creation and security for prison inmates
partner with USDA and know your farmer program grants
increase organic farming
utilize existing organizations
partner with national/international orgs
set example for US
creation of new farms w/ contractual agreement w/DOE
utilize fertile lands
increase students' ability to learn in classroom
increase in physical activities in school farms
trickle down of info to parents about nutrition and food growth
work with youth to restore culture in agricultural
employment opportunities for displaced agricultural workers
conserve more prime agricultural lands
increase interest in students entering agricultural
increase support of families of wellness
encourage families to grow at home
opportunity to start co-op
opportunity for value added industries
centralize place for leftovers to homeless and animals
to create holistic and interdependent economy

enhance food security for Hawai‘i overall
train youth for agricultural job
professional develop for cafeteria workers

November 23, 2009

mandating procurement percentage from local sources
Ag careers
healthy children better learners
increase breakfast participation
increase test scores
dialog with other F2S programs nationwide
allocation of funding to support F2S initiatives
third party processing, purchasing and distributing entity
pilot phase- collaborations
more involvement of non-health professionals too
ex. Economists to create a compelling case to support increase money needed
means of communication between stakeholders across the islands
evaluate economic/health/ educational impact
disseminate findings to stakeholders
create training programs for food service personnel
education of consumers
increase child awareness of food systems via in-school gardens and other programs
integration of school gardens with academic programs and curriculum
HI school nutrition help coordinate
eliminating/recuing sugar from breakfast programs
find equivalents…how our foods fit into nutritional requirement exchange programs
USDA-know your farmer initiative
marketing and PR for being a model for mainland
model develop to address intersession issues
inclusion of low maintenance crops-citrus tree crops
direct link b/t farms and schools -fewer middlemen
public awareness of funding opportunities
evaluation of school existing policies that will work now (loopholes)
legislators introduce legislation to modify school lunch program procurements
find weaknesses from other programs
target other 47 school authorities (in state of HI)
good partnering b/t kids and farmers-like M’AO's-provide healthy educational opportunities
look beyond fruits and vegetables to seafood, others?
private funding

opportunity to educate farmers from school farm studies
make user-friendly
change school lunch environment
farmers to food bank opportunities
networking among all programs
increase funding for cafeteria workers
expand procurement from existing fresh fruit and vegetables
healthier, happier children
education of families
create coordinating group to establish connections b/t schools and farmers
for groups like Slow Food to get involved
coalition of groups to address issues
developing curriculum models and connecting to higher education
math, science and technology

Threats

November 16, 2009

district size
pre-existing contractual obligation and labor concerns
increase runoff of pest. Herbicides
political will and organizational capacity
lack of infrastructure
moving too quickly
students won't eat
loss of USDA reimbursement due to inconsistency
lack of supply/quality
food service needs new training
DOD lose contracts
increased energy costs
lack of labor
fear of change
inadequate funding to do the job
students get sick
supply can't meet demand
security of Ag land
lack of cooperative
disparity of access
threats from shipping industry

centralization of DOE might require system wide implementation vs. little at a time
poorly designed process to bring farmers
threats from Ag industry of mainland
competing financial priorities
working with existing school menu
lead time on crops
resocialize to vegetables
price point of produce
lead time for organic farms

November 23, 2009

no-can- attitude
not enough Ag land, water or talent
resistance to change by cafeteria staff
bureaucracy
potential increase to families of school lunch costs
palatability, familiarity
actual participation in the program
extremists deterring or distracting from the mission
market perceptions or will it be government run?
potential food borne illness
lack of funding from legislature
fitting into federal guidelines-being unique
impact on individual cafeteria staff workers
perception that food grown in the ground is dirty
misinformation to legislators and publics
not having a well-thought out and well-presented case for F2S
reverse food security (if we are self sufficient and natural disaster strikes
ensure stable quantity of food product based on local availability
need for transition plan
can we start with part of meal
food preparation training-safe handling
reaction by current food system (importers)
stretching existing food managers and staff 'thin'
children have little time to consume food in the cafeteria
ourselves- too many restrictions and regulations that scare supporters away

Appendix II. Farm-to-School Programs Elsewhere

The following are brief summaries and resource information about other farm-to-school programs across the country.

California: Farm to School programs are popping up all across the state. These programs connect schools with local farms with the objectives of serving healthy meals in school cafeterias, improving student nutrition, providing health and nutrition education opportunities that will last a lifetime, and supporting California's farmers. http://www.cafarmtoschool.org/

Florida: The Florida "Farm to School" program is an initiative seeking to bring nutritious, fresh food from local farms to schools including K-12, colleges and universities. The Florida Department of Agriculture and Consumer Services will work with the schools and the growers to make sure each side is aware of mutual business opportunities available through this program. This web site is intended to provide information about: the availability of fresh Florida produce; the fruit and vegetable needs of schools; and contact information for both the schools and growers. http://www.florida-agriculture.com/farmtoschool/

Georgia: Working through Georgia Organics, the Atlanta School District obtains produce through its farm-to-school program. http://www.georgiaorganics.org/living/farm_to_school.php

Idaho: Idaho Farm-to-School. The State Department of Education, Child Nutrition Programs and the Idaho Department of Agriculture supports Farm to School Programs in the State of Idaho. Farm to School Programs are growing in Idaho, several schools throughout the state participate in this program. These programs connect schools with local farms with the objectives of serving healthy meals in school cafeterias, improving student nutrition, providing health and nutrition education opportunities that will last a lifetime, and supporting local small farmers. http://www.sde.idaho.gov/site/cnp/nutritionResources/farmSchool.htm

Iowa: Iowa Farm-to-School Program. In 2007, Iowa lawmakers passed Farm-to-School legislation to establish a program that would link elementary, secondary, public and private schools with Iowa Farmers; provide schools with fresh and minimally processed Iowa grown food for inclusion in school meals and snacks, and to encourage children to develop healthy eating habits and provide them with hands-on learning opportunities such as farm visits, cooking demonstrations and school gardening and composting programs. http://www.agriculture.state.ia.us/AgDiversification/farmToSchoolProgram.asp

Louisiana: New Orleans Food and Farm Network includes farm-to-school programs linking Louisiana farmers with New Orleans schools. http://www.noffn.org/

Maryland: A new program being developed by the Maryland Department of Agriculture and the Maryland State Board of Education will bring more Maryland-grown products to school lunches and help educate students about where their food comes, how it is produced, and the benefits of a healthy diet. The Jane Lawton Farm to School Program, so named in honor of the late Maryland House of Delegates member Jane Lawton of District 18, Montgomery County, was created during the 2008 Session of the Maryland General Assembly when *SB 158 Farm-to-School Program - Activities and Promotional Events*, sponsored by Senator Jamie Raskin, was signed into law by the Governor in May. In addition to facilitating the procurement of local Maryland produce for school menus, the bill also creates a Maryland Homegrown School Lunch Week to promote Maryland agriculture through school meal and classroom programs and interaction between students and local farmers.
http://www.mda.state.md.us/mdfarmtoschool/index.php

Massachusetts: From kindergarten to college, interest in serving locally grown foods in cafeterias is increasing in Massachusetts and throughout the northeast U.S. Feeding locally grown foods to students can be a good way for food service directors to improve the nutritional value and taste of school meals, while supporting the local economy. Selling local products to schools can be profitable for Massachusetts growers who are looking for a new way to connect with local consumers.
http://www.mass.gov/agr/markets/Farm_to_school/index.htm

Michigan: "Farm to school" applies to a variety of initiatives in Michigan, including efforts to offer local foods in school cafeterias, school garden programs, fundraisers that take advantage of local products, farmer visits to school classrooms and cafeterias, and field trips to nearby farms. Michigan Farm to School is a portal for information and a venue for sharing ideas, tools, and resources to support these and other efforts to link schools with local agriculture in Michigan.
http://www.mifarmtoschool.msu.edu/

Minnesota: Farm-to-School Minnesota Toolkit for Food Service: Getting food grown by farmers in your community onto your students' lunch trays. http://www.mn-farmtoschool.umn.edu/default.htm

New Hampshire: The NH Farm to School (NHFTS) Program is a project to connect NH farms and schools by integrating agricultural production, school food procurement and school curriculum. The vision of NHFTS is to develop a healthy, community-based, community-supported school food system.
http://www.nhfarmtoschool.org/

New Jersey: To support farm to school efforts in New Jersey by facilitating communication and resource sharing, promoting new and existing programs, organizing educational events and by advocating for policy that increases healthy food in schools.
http://www.njfarmtoschool.org/index.html

New York: In New York and Northeast, a 2007 Farm-to-School Tool Kit has been produced through Cornell University Cooperative Extension.
http://farmtoschool.cce.cornell.edu/files/all/fts_toolkit_oct07_print_version_new_1.pdf

Oklahoma: Farm to School aims at getting Oklahoma-grown food on the cafeteria trays of school children. It encourages farmers to sell produce to schools and encourages schools to buy part of their fresh fruit and vegetable needs from Oklahoma farmers along with local healthy farm products.
http://www.okfarmtoschool.com/index.htm

Oregon: Oregon Farm to School and School Garden Program. Why Farm to School and School Garden programs? These programs connect schools with local farms with the objectives of serving healthy meals in school cafeterias, improving student nutrition, providing health and nutrition education opportunities that will last a lifetime, and supporting local small farmers (from farmtoschool.org). How do school gardens fit in? School gardens are outdoor classrooms where children explore nature and grow their own food. Gardens provide an opportunity to integrate lessons in science, math, reading, environmental studies, nutrition, and health. Children who grow fruits and vegetables are more likely to eat those fruits and vegetables.
http://www.ode.state.or.us/search/page/?id=2648

Rhode Island: Rhode Island's Kids First program in the Department of Education incorporates farm-to-school programs. http://www.kidsfirstri.org/

Vermont: Vermont Feed works with schools and communities to raise awareness about healthy food, the role of Vermont farms and farmers, and good nutrition. We act as a catalyst for rebuilding healthy food systems, and to cultivate links between the classrooms, cafeterias, local farms, and communities.
http://www.vtfeed.org/index.html

Virginia: The Farm-to-School Program is an initiative seeking to bring nutritious fresh food from local farms to schools including K-12, colleges and universities. Virginia schools currently spend more than $6 million annually on fresh produce. The Farm-to-School Program in Virginia will open the door for more of those dollars to stay within the state and support Virginia farmers by promoting opportunities for schools, distributors and growers to work together to increase the volume of locally grown product served in school cafeterias and dining halls.
http://www.vdacs.virginia.gov/marketing/farm.shtml

Washington: The WSDA Farm-to-School Program is dedicated to fostering relationships between schools and agricultural producers in Washington State. Our goal is to support expanding economic opportunities for farmers while educating students about the connections between food, farming, health, and the environment. The program provides information, inspiration, assistance, and policy solutions for those working to

supply healthy Washington-grown food and related education to youth in our State. http://agr.wa.gov/Marketing/Farmtoschool/

Wisconsin: Wisconsin Home Grown Lunch is a grassroots initiative whose goal is to enhance Wisconsin schools' existing meal programs by introducing fresh, nutritious, local and sustainably grown food to children. The program, like similar "farm-to-school" programs around the country, provide opportunities for children to reconnect with their natural world, strengthen links between the classroom and the lunchroom, and help establish a stable market for local farmers and processors. http://www.reapfoodgroup.org/Programs-Events/farm-to-school.html

Summaries of Farm-to-School State-wide Policies including Legislation can be found at the Farm-to-School web site: http://www.farmtoschool.org/policies.php