

Barriers and Possible Facilitators to Participation in Farm to School Week

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ABSTRACT

The purpose of this study was to evaluate child nutrition directors' (CNDs) Farm to School (F2S) Week participation. This cross-sectional, census survey was completed by CNDs working in Mississippi public school districts participating in the National School Lunch Program. Descriptive statistics were used to summarize demographic data and the barriers hindering F2S participation. Out of a total of 74 CNDs, 50 reported no participation in F2S Week 2012. Of the 24 CNDs that did report participating in F2S, the most frequently reported barrier for not participating in F2S or purchasing locally grown produce was a perceived lack of local food availability, mainly in terms of local food variety. When attempting to overcome barriers associated with purchasing locally grown produce, CNDs should seek out resources like Food Policy Councils or state affiliates of the National Farm to School Network.

Keywords: Farm to School; child nutrition directors; National School Lunch Program

INTRODUCTION

In Mississippi, rates of childhood and adult obesity as well as nutrition-related chronic diseases such as hypertension, diabetes, and cancer rank among the highest in the nation (Behavioral Risk Factor Surveillance System, 2012; Centers for Disease Control and Prevention, 2012a, 2012b). The National School Lunch Program (NSLP) has been targeted as a primary way to improve the dietary behavior and intakes of children across the country. The Healthy, Hunger Free Kids Act of 2010 (Pub. L. 111–296) required the U.S. Department of Agriculture to update the meal patterns and nutrition standards for the NSLP and School Breakfast Program to align them with the Dietary Guidelines for Americans (U.S. Department of Health and Human Services & U.S. Department of Agriculture [USDA], 2010). Among the many changes, the new standards for school meals increase the availability of fruits, vegetables, whole grains, and fat-free and low-fat fluid milk in school meals (USDA, 2012).

Previous research indicates that fruit and vegetable intake is inversely related to body mass index, promotes weight management, and protects against obesity-related chronic diseases (Boeing et al., 2012; Miller & Moore, 2011; Rolls, Ello-Martin, & Tohill, 2004). Farm to School (F2S) is an initiative that brings nutritious, fresh food produced locally to schools while supporting local agriculture and economies. In many schools, the focus is on increasing students' exposure to fruits and vegetables through nutrition education in classrooms, school gardens, and incorporating local items in the school lunch program. An integral part of F2S is improvement of students' preferences and willingness to try new fruits and vegetables by increasing fruit and vegetable exposure (Taylor & Johnson, 2013). Also, because school lunch programs involved with F2S often offer a greater variety of fruits and vegetables, F2S programs can help increase fruit and vegetable consumption, thus improving overall diet quality (Izumi, Alaimo, & Hamm, 2010; Taylor & Johnson, 2013).

Participation in this relatively new F2S movement is increasing nationwide. A key aspect to enhancing success of F2S is elucidating barriers and evaluating participation. The objectives of this cross-sectional study were to: a) identify and describe Mississippi school district participation in the first annual Mississippi F2S Week 2012 and b) identify the perceived barriers and future interest of F2S among CNDs employed at Mississippi public schools.

METHODOLOGY

All 156 CNDs employed by Mississippi public schools participating in the NSLP were invited to take an electronic survey. An individualized email was sent to CNDs, inviting them to participate in the self-administered F2S Week survey. Survey questions incorporated F2S recommendations published by the Mississippi Food Policy Council and were developed by the researcher based on interviews with key partners who were from throughout Mississippi and had backgrounds in farming, school foodservice, procurement, and food policy (Rosenberg & Leib, 2011). Erpelding, Pinard, and Yaroch (2011) developed a CND survey to assess F2S programs in Nebraska, and it was used as a guide to ensure that the CND F2S Week survey included all aspects of F2S that applied to the current project.

All participants received questions regarding school district demographics, along with two “Yes/No” questions pertaining to participation prior to F2S Week 2012 and during F2S Week 2012. For CNDs who reported not participating in F2S Week, variables measured were awareness of F2S Week 2012, barriers that inhibited participation, and future participation. A total of 78 out of 156 CNDs completed the survey, and data from 74 CNDs were included in the analysis. The study was approved by The University of Southern Mississippi Institutional Review Board.

RESULTS: Farm to School Week 2012 Participation

Of the 74 CNDs who provided data that was included in the final analysis, 50 CNDs reported no participation in F2S. For CNDs that reportedly *did not* participate in F2S Week, the most frequently reported barriers were identified as: local food items were not easily accessible for purchase (n=25); lack of knowledge regarding the bidding process outside of the statewide purchasing cooperative (n=18); cost of local foods (n=18); and inability to purchase quantity needed (n=17; Table 1).

CONCLUSIONS AND APPLICATION

The reported “lack of availability of local foods” could have been due to any one of several reasons including inability to find local farmers and/or local farmers who sell a variety of produce and at a quantity substantial enough to supply an entire district consistently. In Mississippi, public school CNDs can procure food from three different sources including independent distributors, the Mississippi Department of Education’s statewide purchasing cooperative, and the USDA Donated Foods Programs. One way to increase local food availability in terms of variety is to offer local items through normal purchasing distributors or the statewide purchasing cooperative. The option for CNDs to take part in a statewide purchasing cooperative may provide access to a greater variety of foods at lower prices, thus overcoming both the barrier of availability as well as the barrier of increased costs often associated with

purchasing locally grown produce. As for availability and food supply, CNDs may need to be made aware of local items other than produce that could be marketed as F2S products. For example, apple cider, milk, beef, chicken, and wheat are all examples of possible local items.

Table 1. Reported Barriers of Farm to School Participation for Child Nutrition Directors Not Participating in Farm to School Week, Mississippi, 2012 (N=50)

	Strongly Disagree/ Disagree	Neutral	Strongly Agree/ Agree
Did not participate...	n	n	n
Because local foods were not easily accessible	13	11	25
Because I was unsure about bidding process outside of statewide purchasing cooperative	18	14	18
Because local foods too high in cost	13		18
Because local foods not available in quantity needed	15		17
Due to concerns with food safety	25	13	12
Because the size of school/s	20	18	11
Because local foods available did not fit within predetermined school menu	19	20	11
Due to lack of time to prepare new menu items	17	22	10
Due to inadequate storage space	20	21	9
Because foodservice staff did not feel comfortable with the extra preparation skills needed	23	22	5
Because local foods purchased through the statewide purchasing cooperative were delivered too late	8	13	3

According to surveyed CNDs, costs related to labor and production are concerns, as the rising prices of foods coupled with the requirements to provide more fresh foods may reduce the amount of money available for purchasing local items. Perhaps identification and then sourcing of the top 10 food products used most by volume would be a way to save money by buying locally, in bulk. Because buying local usually means the foods are fresher which in turn means longer shelf life and less waste, CNDs might, in the end, actually be saving money by buying locally.

Purchasing regulations and food safety may have been primary concerns because CNDs perceived that only foods from Good Agricultural Practices/Good Handling Practices (GAP/GHP) certified farms are acceptable and available for purchase. Unfortunately, at the time of this study, only 35 of the hundreds of farms in Mississippi were GAP/GHP certified, with 18 of those farms solely harvesting blueberries or sweet potatoes and 9 offering various fruits and vegetables (USDA Agriculture Marketing Service, 2013). Because of the expense and effort involved in obtaining GAP/GHP certification, farmers may experience difficulty selling

commodity crops to schools associated with the NSLP, thus leaving few options for local food purchasing by CNDs. Fortunately, efforts are being made by the U.S. Cooperative Extension Service and other entities to provide low or no-cost GAP/GHP training to local farmers—measures that could make purchasing from local farmers less strenuous for both farmers and CNDs. To address the barrier of food safety, the use of alternative food safety assessments that are developed for smaller food producers should be promoted.

The concern of a lack of time, which was associated with infrequent deliveries and increased labor associated with food preparation, as well as other concerns can be addressed through resources like Food Policy Councils or state affiliates to the National Farm to School Network. Undergirding all these concerns is continuing education about resources available and actual regulations enforced by the State Agency. For example, the Mississippi Department of Agriculture and Commerce, Mississippi Department of Education, and Mississippi State University Cooperative Extension Service as well as the National Farm to School Network are working to link “experts” like farmers, researchers, CNDs, and State Agency employees (P. Manning, personal communication, February 17, 2015). These links would allow CNDs to contact farmers that they might not have otherwise identified. Also, researchers can connect with farmers and CNDs to evaluate programs, and CNDs can have a forum in which State Agency personnel are able to provide clarification and counsel regarding policies and procedures.

With an increase in available F2S resources and implementation of Michigan’s F2S Procurement Act, which encouraged the state’s Department of Agriculture and Department of Education to collaborate with a goal of increasing F2S efforts, F2S participation among Michigan schools tripled over five years (Colasanti, Matts, & Hamm, 2012). Similar to F2S developments in Michigan, the Mississippi Department of Education, Mississippi Department of Agriculture and Commerce, and local farmers have begun to collaborate to increase F2S efforts in Mississippi through increasing local food availability. In 2013, the Mississippi Legislature established an Inter-Agency Farm to School Council made up of representatives from the Mississippi Department of Education, Mississippi Department of Agriculture and Commerce, school districts, extension offices, the Poultry Association, Mississippi Farm Bureau, Mississippi State Department of Health, and others (Interagency Farm to School Council, House Bill 718, 2013). The goal of the council is to increase local food availability to Mississippi schools, thus improving the state economy and increasing exposure to and consumption of fruits and vegetables among children in the state. In order to increase F2S participation in Mississippi while ensuring all farms in Mississippi have an opportunity to benefit economically, Mississippi’s Inter-Agency Farm to School Council must address several issues including local food variety and availability as well as purchasing barriers.

Future research regarding specific motivators of CNDs that actively participate in F2S would help identify variables that predict F2S participation. The impact of F2S on students’ fruit and vegetable consumption as well as changes in NSLP participation rates should also be evaluated. Furthermore, while fruits and vegetables are often the only items included in F2S evaluations, other local produce items such as milk, meat, and grains should be investigated, seeing as these other items are just as important to local economies and children’s diets as fruits and vegetables.

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BIOGRAPHY

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