

ABSTRACTS OF ANNUAL NATIONAL CONFERENCE RESEARCH POSTERS 2022

Food Traceability in School Foodservice Operations: Benefits and Challenges Basem Boutros, PhD, CHIA, SNS. Sam Houston State University; Kevin Roberts, PhD. Kansas State University

Introduction: Food traceability can be defined as the ability to access all information related to a food product through its entire life by means of recorded identifications (Olsen & Borit, 2013). The overarching purpose of food traceability systems is to facilitate the identification of affected products due to a food safety incident and improve the ability to withdraw or recall such products and prevent them from reaching the customers (The National Food Service Management Institute, 2012b). Food defense measures designed to protect food from intentional contamination can be aided by food traceability systems, which help remove foods from service if they have been contaminated, either intentionally, or unintentionally (Pannell-Martin & Boettger, 2014). Schools are required under the National School Lunch Act to develop a food safety program based on Hazard Analysis and Critical Control Points (HACCP) principles to control food safety hazards (USDA Food and Nutrition Service, 2005). However, Fredrickson (2014) indicated that implementing HACCP is only the first step to reduce intentional contamination in a well-defended food system. Therefore, this study explored food traceability systems in school foodservice in the United States and the potential benefits and challenges to their implementation.

Methods: An online questionnaire was developed and used to collect data. A mixed-mode approach was followed to recruit the participants. A convenience sample of 500 school nutrition professionals from Qualtrics® panel was targeted for data collection with the goal of having responses from 300 participants. Due to low response rate from the initial panel, the contact information of a second convenience sample of 200 child nutrition professionals with no geographic representation was obtained from the National Center for Education Statistics database. The individuals were invited to participate by email with a link to the questionnaire. Data was analyzed using SPSS. Descriptive statistics were computed to screen and summarize the data. Factor analysis was performed to categorize and identify potential benefits of, and challenges to implementing food traceability systems in school foodservice.

Results: A total of 427 respondents accessed the questionnaire. Only 124 completed questionnaires were retained for a response rate of 24.8%. The findings showed that traceability systems in the investigated districts involve either paper-based or manually entered data systems. The top identified benefits of implementing food traceability systems were supporting food safety, preventing bioterrorism, and cost reduction. Among the top reported challenges to implementing food traceability systems were the unexpected substitution of food by vendors and high cost of implementing advanced traceability systems.

Conclusions and Applications: The results of the study suggested that school nutrition authorities need to continue to document and track their food supplies to ensure food safety in all stages of production, processing, and service in their districts. School foodservice operations are

also encouraged to implement a traceability system that is compatible with the food products, the production process, and budget in order to respond effectively to food-related incidents and protect safety of food served.

Mississippi School Foodservice Directors' Farm to School Procurement Practices by Region Alicia Landry, PhD, RDN, LDN, SNS. University of Central Arkansas; Jessica Thomson, PhD; Tameka Walls, PhD. USDA, Agricultural Research Service

Introduction: Farm to School (F2S) has been a long-term staple of conversation for school foodservice directors (SFD), especially in highly productive agricultural states, like Mississippi. The COVID-19 pandemic turned traditional foodservice procurement and service on its end and in the wake, farmers and SFD alike have been left to figure out the next steps. Strengthening the partnerships with farmers and SFD has never been more important since local procurement means fewer miles to travel and less worry about dwindling supply and unreliable transportation.

Methods: The purpose of this study was to learn more about SFDs' and farmers' needs and desires related to F2S. An online survey was distributed via email to 173 SFD with addresses derived from a directory, school websites, and school administrators. Survey data were collected and analyzed using SAS. Follow-up interviews were conducted with those who agreed to provide contact information. From these interviews, word clouds were created to show themes and overall perceptions.

Results: A total of 122 SFD responded to the survey. Most were female (n=100, 84%) and 45-64 years of age (65%). Forty-three percent (n=47) were black and 95 (81%) had a bachelor's degree or higher. Eighty-one percent were in school districts with an average of 50% or more free or reduced lunch eligibility. More Director's from Regions 1 and 7 reported purchasing fresh fruits and vegetables locally. No SFD reported purchasing herbs locally and only one reported purchasing local honey. Only 8 purchased beef and pork, and 7 reported purchasing chicken. Meats were more frequently reported by those in regions 1 and 3. When asked if they liked to "purchase locally sourced", more SFD from Regions 1, 3, and 7 responded positively. When asked what "purchasing from a local source means to you", responses included "support local", "rules and regulations", "community", and "local businesses". When asked how SFD should be contacted for future research, responses included "email", "meetings", and "trainings".

Conclusions and Applications: SFD from different regions within a single state have diverse practices and perspectives on utilizing F2S and/or purchasing local. Interestingly, the state's F2S Network is based in Region 1 and border many counties in Region 3. Region 7 is on the Gulf Coast and has multiple F2S champions as well as the new F2S state leads. SFD provided useful insights about their perception of local sourcing and best practices for approaching them in the future.

Stakeholders' Insight about Farm to School Produce Food Safety Paola Paez, PhD; Kevin Sauer, PhD, RDN, LD, FAND; Kevin Roberts, PhD. Kansas State University

School food authorities identified the status of farm to school produce safety utilizing a 3-step survey approach. Participants stated challenges/barriers to ensure produce safety such as: communications, delivery, documentation, food safety standards, Good Agricultural Practices

certification, inspections, knowledge of farmers and personnel, packaging, quality, time, training of farmers and personnel, and transportation. Participants noted Good Agricultural Practices certification as an influencer on the School Food Authorities decision to purchase produce from local farms. Programs can use results from this study when developing, maintaining, and/or improving the safety of produce in their farm to school initiatives. Training programs on farm to school produce safety should focus on the requirements for Good Agricultural Practices certification and on procurement, distribution, transportation, and storage. Training should be stratified and customized for different audiences such as distributors, school nutrition employees, and farmers.