

Best Practice Food Safety Standard Operating Procedures for Share Tables Can Reduce Food Waste While Improving Food Security During COVID-19 and Beyond

This paper summarizes rules, regulations, and best practices of share table food safety practices in schools to decrease food waste and increase food security and reviews current policies to develop best practices for share tables Standard Operating Procedures (SOPs). Out of 18 SOPs reviewed a majority 38.8% (7 states) were guidelines, followed by 27.7% were regulation and guidance (5 states), 16.6% guidance (3 states), 11.1% were regulation and guideline (2 states), and only 1 of 18 (5.5%) was regulation. Best practices include collecting input from parents, using proper/clear signage, and educating school faculty on share table procedures.

BEST PRACTICES

*Lorraine Kunick, MPH, RDN;
Jennifer Shukaitis, MPH; Sara
Elnakib, PhD, MPH, RDN*



Approximately 41 million people in America are food insecure, a number that includes about 13 million children (USDA, 2017). Feeding America projects an exacerbation of the issue with an additional 4 million people who will face food insecurity due to the pandemic (Feeding America, 2021). Despite the prevalence of food insecurity, an astounding 40% of America's food supply is wasted every year (NRDC, 2017), costing \$161 billion annually (Buzby et al., 2014). Food waste in the U.S. has been increasing at an alarming rate, with Americans wasting 50% more than they did in the 1970s (Hall et al., 2009).

In 2015, the United States

Department of Agriculture (USDA) and United States Environmental Protection Agency (EPA) collaborated to create the first ever national goal of reducing food waste by 50% by the year 2030 (EPA, 2015). Many states have created policies that support this national food waste reduction goal. The New Jersey Department of Environmental Protection (NJDEP) created a "sector-based approach" implementation plan to support this goal (NJDEP, 2017). This includes the publication of a K-12 Food Waste Reduction Guide that encourages strategies such as composting, anaerobic digestion and share table use (NJDEP, 2019).

Share tables are a designated place in the lunchroom where students can place unopened food and beverages they do not wish to consume. They are relatively simple to set up and are low or no-cost solutions to reducing waste and increasing food insecurity (USDA, 2016). Share table food may be used as snacks for after school programs or sports practices, or even donated to local food pantries or soup kitchens. According to one study that analyzed plate waste from 46 schools across nine cities in eight states, on average each school wasted approximately 39.2 pounds of food per student per year (WWF, 2019). Based on this figure, schools in the U.S. waste about 530,000 food tons per year. Thus, K-12 schools are a crucial area of focus for reducing food waste. Furthermore, for the more than 30 million students participating in the National School Lunch Program (NSLP) and more than 14 million students participating in the School Breakfast Program (SBP), increased food consumption and decreased food waste helps children get the adequate nutrition they need to thrive in school and life (USDA, 2017). Share tables can serve as a great opportunity for Family and Consumer Sciences (FCS) Educators to provide food waste education and support food insecurity reduction efforts.

PURPOSE

Share table regulations and guidance allow for FCS educators to focus on promoting Health in All Policies (HiAP) because share tables can help reduce food insecurity, hunger and help provide adequate nutrition to food insecure individuals (CDC, 2018). The purpose of this best practice article is to describe food safety practices when FCS Educators are implementing share tables. The USDA supports and encourages the use of share tables in child nutrition programs that utilize

the National School Lunch Program (USDA, 2016). School leaders may be fearful of potential liability from donating food; however, the federal Bill Emerson Good Samaritan Act (42 U.S. Code § 1791) protects against liability for these types of donations (USDA, 1997). Schools that want to donate food must follow proper food safety practices. Unfortunately, many states have little guidance on how to safely organize, execute, and monitor share tables in schools while maintaining proper food safety.

BACKGROUND

LITERATURE REVIEW

A previous research study has assessed state-level share table policies in all 50 U.S. states and Washington DC K-12 schools in the Spring and Summer of 2018 (Prescott et al., 2020). According to that study, only 54% of states had any guidance on food safety practices of share tables. The collected policies were reviewed for 11 key share table characteristics: health code, standard operating procedure (SOP), identifying items, critical limits, monitoring, corrective actions, record keeping, establishing reuse/redistribution plan, marketing and outreach, allergy considerations and unique ideas. Out of the 50 states, the research found that 6 states, provided an SOP, 3 states required an SOP, 5 states recommend an SOP, 13 states provided a guidance document, and the remaining 23 states have no policy document regarding share table food safety (Prescott et al., 2020). Building on that study, eighteen state policies found online were reviewed for the following: department of origin, legislative level, incentive, and best practices. The SOPs recommended in this paper were developed from an extensive review of the policies from these 18 states.

FINDINGS

DEPARTMENT OF ORIGIN

Thirteen of the 18 (72.2%) share table policies originated in each state's department education whether it was in conjunction with the inspections and appeals authority or another health or nutrition agency within the state. The breakdown for the department of origin can be found in Table 1.

LEGISLATIVE LEVEL

Legislative level was identified by how SOPs addressed state regulations and guidance on those regulations and were sorted into 5 categories (regulation and guidance, regulation and guideline, regulation, guidance, and guideline). A regulation is a specific regulatory citation/provision, while a guidance is either a statement of internal policy or an explanation of the interpretation/application of a regulation. Lastly, a guideline is an extension of guidance. Out of 18 SOPs reviewed a majority 38.8% (7 states) were guidelines, followed by 27.7% were regulation and guidance (5 states), 16.6% guidance (3 states), 11.1% were regulation and guideline (2 states), and only 1 of 18 (5.5%) was regulation. The breakdown for the legislative level can be found in Figure 1.

INCENTIVES

Incentives were measured by how the standard operating procedures were framed when trying to incentivize their use. Common incentives included reducing food waste 55.6% of SOPs or 10 of 18 states, food safety 27.8% of SOPs or 5 of 18 states, food recovery 5.5% of SOPs or 1 of 18 states, working with food banks 5.5% of SOPs or 1 of 18 states, and a combination of reducing food waste and promoting food safety 5.5% of SOPs or 1 of 18 states.

BEST PRACTICES

When comparing the components of the standard operating procedures, all states reviewed had a list for allowable food and beverages, and 4 of 18 (22.2%) states had a section on best practices. Some best practices compiled after a review of the 18 SOP's include the following:

Notification and Outreach

1. Communicate to parents informing them of the capability of the share table.
2. Request input from parents and guardians to ensure families are comfortable with their children participating in the share table.
3. Communicate allergy information, indicate that students with allergies should not take food from the share table as items from the share table may contain ingredients containing allergens or have been handled by a student who had contact with an allergen. If a student is unable to manage, it is the responsibility of those supervising the students in the cafeteria. Some states (CO and IA) suggest keeping share table items separate from allergens to prevent cross contact and provide training to those

monitoring the share table to protect students with allergies.

Liability

1. Ensure school board approval with accepting the liability of any food borne illness due to the sharing of food and ensure that the share table does not conflict with policies and procedures pertaining to food allergies.
2. Ensure the share table follows local and state health department regulations.

Share Table Design

1. Clearly identify items allowed and not allowed to be shared on SOP.
2. Keep share table items separated by food group to prevent cross-contamination.
3. Signage must be posted to notify students of the purpose of the share table, share table procedures and allowable foods.

Share Table Maintenance

1. Do not mix ready to eat items with items that have not yet been prepared and served.
2. Include explicit instructions to discard any out-of-date items "When in doubt, throw it out".
3. Regularly educate and train teachers, principals and other school staff on share table policies and procedures.
4. Provide times and temperatures in SOPs for critical control points.
5. Designate a point person for monitoring times and temperatures of the share table and location of record keeping documents.
6. Proper monitoring including strict time and temperature controls should be documented.
7. Identify corrective actions that need to be taken if share table items are compromised through poor time and temperature control.
8. Identify use of share table items correctly handled, whether redistribution to lunch program, redistribution to school program such as afterschool programs or athletics, or external donation.

OVERALL FOOD WASTE REDUCTION STRATEGIES

Several more food waste reduction strategies were identified as being effective in reducing food waste. For example, Iowa's SOP stated the need for food service departments to consider alternate production strategies to reduce food waste at the source. Additionally, Offer vs. Serve (OVS) reduces excess food waste on lunch

trays and allow students to only take foods they plan to eat, while still allowing for a reimbursable meal option in National School Lunch and School Breakfast Programs. Finally, school staff should educate students about the share table in a way that does not pressure students to donate foods from their meal while ensuring students do not bully or exert undue influence on other students to donate their food. All these added measures make an impact on a reduction in food waste.

COVID-19 CONSIDERATIONS

Standard Operating Practices should include the following considerations for COVID-19 safety:

1. Reinforce hand washing policy; students and staff must wash hands prior to handling or consuming food to avoid pathogens from spreading.
2. Share table food must be washed prior to redistribution or sharing.
3. Only Individually wrapped items or whole produce items with thick inedible peels may be shared.
4. Medically vulnerable populations should not partake in the share table.
5. Social distancing and wearing face masks must be followed when dropping off items to the share table.



SUMMARY

With such a high amount of food waste produced in schools and a great need for food security post-pandemic, share tables can be an important intervention impacting both issues. While reviewing 18 SOPs throughout the country we have found there are best practices any share table SOP should consider before implementation. Elements of food safety planning, maintenance and communication have been highlighted in this manuscript as best practices. In sum, Family and Consumer Sciences Extension professionals can play an integral role in ensuring that share table practices meet food safety considerations while effectively reducing food waste and increasing food security to those in need.



You may click here to access the references, tables, and graphs for this article.



CONTACT INFORMATION

Lorraine N. Kunick, MPH, RDN
1 Normal Ave.
Montclair, NJ 07043
lorrainekunick@gmail.com



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Appendix

Table 1

Department of Origin of State Share Table Policies Reviewed

State	Department of Origin
Department of Education Only	
Arizona California Colorado Minnesota Missouri Nebraska	Department of Education
Department of Education and Other Department or Division	
Alaska	Department of Education & Early Development Department of Environmental Conservation
Connecticut	Department of Education & Department of Public Health
Georgia	Department of Education & Department of Public Health
Iowa	Department of Education Bureau of Nutrition and Health, Department of Inspections and Appeals, & Iowa State University Human Sciences Extension & Outreach
New York	Department of Education & Department of Health
South Carolina	Department of Education & Department of Health and Environmental Control (DHEC)
Kansas	Department of Education & Department of Agriculture
New Jersey	Department of Environmental Protection Department of Agriculture Department of Education Department of Health Office of the Secretary of Higher Education
Other Departments Not Related to Department of Education	
Wisconsin	Department of Public Instruction
Indiana	Department of Health
Maine	Department of Health and Human Services

Washington State	Department of Health in conjunction with EPA* *Posted on EPA website
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Table 2
U.S. Share Table Policies Reviewed

State	Citation
Alaska	Alaska Department of Environmental Conservation and Alaska Department of Education & Early Development. (2017, August n.d.). <i>Share Tables for Child Nutrition Programs in Alaska</i> . https://dec.alaska.gov/media/9934/resources-food-guide-school-food-service-share-tables.pdf
Arizona	Arizona Department of Education. (n.d.). <i>School Nutrition Programs Guidance Manual</i> . https://www.azed.gov/sites/default/files/2017/02/SNP%20Guidance%20Manual%202015-16Revised03122020.pdf?id=58adf4291130c10a4c1e8b27
California	California Department of Education. (2018, February n.d.). <i>The Use of Share Tables</i> . https://www.cde.ca.gov/ls/nu/sn/mbcnp032018.asp
Colorado	Colorado Department of Education. (2016, July 21). <i>Standard Operating Procedure (SOP) Redistribution of Returned Food/Share Tables</i> . https://www.cde.state.co.us/nutrition/osnfoodsafetyresources-0
Connecticut	Connecticut Department of Education & Connecticut Department of Public Health. (2017, January 25). <i>CSDE Operational Memorandum No. 8A-16, 10C-16, and 10H-16 The Use of Share Tables in Connecticut CACFP Centers and Family Day Care Homes</i> . https://portal.ct.gov/-/media/SDE/Nutrition/CACFP/Memos/OM2016/OM08A16_10C16_10H16.pdf
Georgia	Georgia Department of Education & Georgia Department of Public Health. (2016, September n.d.). <i>Standard Operating Procedure (SOP) Sharing Tables/Redistribution of Food</i> . http://snp.wpgadoe.org/wp-content/uploads/GeorgiaSharingTableSOPv0916.pdf
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Maine	Maine Department of Health and Human Services. (2019, May n.d.). <i>Food Sharing Tables-Guidance for Schools</i> . https://www.maine.gov/dhhs/mecdc/environmental-health/el/site-files/handouts/Food-Sharing-Tables-Guidance-for-Schools-052419.pdf
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New Jersey	The New Jersey Department of Environmental Protection. (2019, November n.d.). The State of New Jersey School Food Waste Guidelines K-12 Schools Edition. https://www.nj.gov/dep/seeds/sfwg/docs/K-12.pdf
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Figure 1
Legislative Level of Share Table Policies Reviewed

