



Institute of Child Nutrition
COVID-19 Taskforce, Phase II

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Institute of Child Nutrition

COVID-19 Taskforce, Phase II

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INSTITUTE OF CHILD NUTRITION COVID-19 TASKFORCE, PHASE II

EXECUTIVE SUMMARY

The Institute of Child Nutrition (ICN) is a “federally funded national center dedicated to applied research, education and training, and technical assistance for child nutrition programs. Supporting the Institutes’ mission, the ICN, Applied Research Division (ARD) systematically conducts research and development projects that influence child nutrition operational practices” (ICN, 2022) (<https://theicn.org/research>). The ICN’s ARD established the COVID-19 Taskforce at the onset of the COVID-19 pandemic. The purpose of this task force was to identify and describe the challenges school nutrition (SN) professionals face and to assist them with those challenges by developing resources to help mitigate and provide guidance and support during these unprecedented times. In July 2020, researchers at ARD captured the unique challenges that SN professionals experienced, the specific factors that helped facilitate meal service, unforeseen positive outcomes, and areas in need of resources and materials for guidance during the COVID-19 Taskforce, Phase I study, hereafter referred to as Phase I (ICN, 2020).

Though the Phase I study provided valuable insight, the researchers recognized the fluidity of the pandemic in terms of guidance, restrictions, and potential variation of challenges and insight available as time went on and therefore established the COVID-19 Taskforce, Phase II study, hereafter referred to as Phase II. The purpose of Phase II was to build on Phase I by exploring the challenges and realities faced by SN professionals supporting and serving meals through another transitioning period of the COVID-19 pandemic.

Based on recommendations from Phase I (<https://theicn.org/resources/347/technical-reports/118719/institute-of-child-nutrition-covid-19-taskforce-phase-i.pdf>), to maintain safety for all involved and to ensure the most nationally representative sample of participants, focus groups were utilized as the methodology for conducting this research. The recruitment strategy for the focus groups was based on obtaining 54–90 participants total, consisting of State agency professionals (SA), school food authorities (SFA), purchasing consortiums (PC), and industry professionals (manufacturing, brokers, and distributors). Participants were selected via convenience sampling representing the seven United States Department of Agriculture (USDA) Food and Nutrition Service (FNS) regions. The industry professionals focus group was conducted first, and those findings were used to inform the SA and SFA’s focus group discussions and present any helpful information.

Prior to participating in the focus group, each individual completed a questionnaire relevant to their segment. The industry questionnaire asked for contact information, challenges experiences before the pandemic, current challenges, SN sales, recommended business practices, and SN training topics. The SA professionals answered questions about meal-service models utilized and training formats, lengths, and topics. The SFA and PC professionals responded to questions about demographics, participation, free- and reduced-meal eligibility, meal-service models, and training formats, lengths, and recommended topics.

Study objectives and key findings are included below:

Objective 1. Identify and describe the major operational changes/strategies that school nutrition program (SNP) operators are implementing for the re-opening of schools for in-person instruction and/or remote learning and to promote access to school meals.

- School nutrition programs continued to modify meal delivery and service to best fit individual schools' needs. As the pandemic progressed with the re-opening of schools for in-person instruction, reported meal delivery services decreased dramatically, and in-classroom and/or in-cafeteria meals increased.
- Labor shortages affected every aspect of SNP operations and were a main cause for the reported increased frustration and anxiety from customers and staff. Wellness and team-building initiatives, as well as personalized approaches (e.g., gifts, encouraging emails, and empathetic listening), were noted as some of the strategies to aid in the teams' mental health and wellbeing throughout these challenging times dealing with internal operational issues as well as extensive supply chain issues.

Objective 2. Explore emerging trends and future implications that will impact SNP meal service and/or future training and technical assistance requirements.

- Even the SN directors who had staff available reported that their staff members were often burned out and exhausted. Addressing the mental health and well-being needs of SN staff was identified as essential to the success and continuation of SNPs going forward.
- Industry professionals noted that many of the changes that have occurred due to the pandemic are here to stay, and they cannot go back to business as usual. Specifically, stock keeping unit (SKU) reduction, high competition for line time, and increased pricing are areas that must be addressed.
- Industry participants expressed difficulty in maintaining their existing relationships with K–12 and operating under the current circumstances. Specifically, industry professionals noted the K–12 market's low-profit margin, the restrictive, one-sided procurement process, the SNPs' general unfamiliarity with the supply chain and the procurement process, and SNPs' lack of communication. School nutrition professionals noted their disadvantage in their relationship with the industry when compared to the restaurant sector, which can increase their prices at will.

Objective 3. Assess the training, technical assistance, and resource needs of State agencies and SFAs, as SNP operators develop plans for School Year (SY) 2021–2022 program operations.

- Participants reported that the training subject should dictate the training length with a preference for 30-minute or one-hour lengths. In addition, face-to-face trainings along with webinars, virtual trainings, digital resources, and printed self-guides are preferred formats.
- All SFA groups identified staff training resources as needed technical assistance to address the labor shortage and save them time and effort by not having "to recreate any wheels." Further, SNP participants mentioned the need for resources,

technical assistance, and training to address staffing issues that extend beyond the immediate shortage caused by COVID-19. More specifically, developing a hiring pipeline, recruitment and retention support, and training were provided as solutions to address this issue.

- School nutrition programs requested training and technical assistance to help them address issues across nearly every phase of the procurement lifecycle: writing specifications, vendor identification and selection, contracting, service delivery and performance monitoring, and renewal/contract closure.
- Industry professionals noted the need for training to improve the SN professionals' ability to understand supply chains, pricing models, requests for proposals, and invitations for bids, and to show them how to adapt more effectively to changing circumstances.
- All participants mentioned the brevity of the current trainings being more effective due to a briefer, more focused format.

Lastly, one of the most notable and agreed upon findings from this study was that all participants identified the need for mutually beneficial partnerships and systemic changes that would require a top-down approach (e.g., starting with the USDA). The data collected in this study present numerous opportunities and means for improvement and support that can be utilized to continue supporting SN professionals.

INTRODUCTION

Institute of Child Nutrition COVID-19 Taskforce, Phase II

Findings from the COVID-19 Taskforce, Phase I study, hereafter referred to as Phase I, highlighted unique challenges that SN professionals experienced during COVID-19. In addition to the challenges revolving around transitioning into and/or developing emergency feeding techniques that were employed to facilitate the ongoing operations of school meal service during this time, preparation for the Fall 2020–2021 school year was hindered greatly by the fluidity of the pandemic and study respondents’ reported lack of involvement in the instruction model planning process. As the pandemic progressed, so did the discussion about the transition for SNPs to post-pandemic meal service, with potential supply chain, packaging, and financial challenges going into the fall 2021–2022 school year.

Background

School Nutrition Program Pandemic Experiences and Concerns

Throughout the pandemic, several researchers and organizations collected local, regional, and representative data evaluating the impact of COVID-19 on SNP operations and staff. One of the first to do so was the School Nutrition Association (SNA), administering a survey between March 12 and March 16, 2020, to its members who were SN directors. Three of the most pressing concerns reported by SN directors in the initial weeks of the pandemic were student hunger, financial challenges, and transportation challenges (SNA, 2020).

Meal-Service Models. Despite the numerous challenges they were facing, SNP operators worked tirelessly by way of creative meal-service models and solutions to continue ensuring children received food. The most common meal-service models employed by schools at the time of the first SNA survey, consistent with findings from Schwasbisch et al. (2020) and the ICN (2020), were curbside pickup, grab-n-go, and delivery to community sites or directly to houses (SNA, 2020). With the administration of a longitudinal survey titled *AEI’s COVID-19 Educational Response Longitudinal Survey*, The American Enterprise Institute (AEI) captured the trend of how schools’ meal-service methods evolved during the pandemic to become more consistent with social-distancing guidelines. Findings from this survey are presented in a series of reports (Malkus & Christensen, 2020a; Malkus & Christensen, 2020b; Malkus & Christensen, 2020c; Malkus et al., 2020; Malkus et al., 2020a; Malkus et al., 2020b).

Phase I utilized focus groups consisting of nationally representative SN professionals to gather information on SNP operations during the pandemic. More specifically, SN directors perceived barriers to meal preparation/service in the beginning months of the pandemic and the recent future and found financial concerns (SNA, 2020), limited staffing, and major changes in the production system were the top-three reported barriers of that time (ICN, 2020). Around the same time, Chrisman and Alnaim (2021) identified meal reimbursement, student transportation, staffing, and support from local and state government as SNP operators and foodservice staff members’ concerns as they prepared for the 2020–2021 SY. Many participants noted that some families signed up to receive meals but lacked transportation or access to the meal pick-up location; as a result, this became a barrier to participation.

Between April 30 and May 2, 2020, the SNA conducted a follow-up survey to assess the ongoing impact of COVID-19 on SNPs. At that time, 5% of respondents indicated that they had stopped distributing emergency meals, citing health and safety concerns for their staff and students and a lack of personal protective equipment. These concerns for SN professionals' personal safety were widespread, and for those who continued distribution, some of the risk mitigation methods enforced were providing and/or requiring masks for staff, increased frequency of cleaning/sanitation, and limiting staff numbers at preparation and distribution sites (Patten et al., 2021a).

Financial Loss. In addition to personal safety, many SN directors shared concerns about an anticipated financial loss in the wake of COVID-19 due, in part, to a lack of sufficient reserve funds and a decline in participation rates. Regarding the financial state of SNPs, over half of SFA respondents in the SNA back-to-school survey anticipated that they would experience a loss of federal revenue in the upcoming 2020–2021 SY. Of those, only a third expected that they would be able to cover those losses from money in their reserve (SNA, 2021b). Although most survey respondents indicated they had reserve funds, nearly half of respondents with reserve funds and who anticipated suffering financial loss because of COVID-19 did not believe their reserve funds would be enough to cover the extent of their losses.

School nutrition programs have had to make several changes to program operations due to financial concerns related to the pandemic, among which included reducing the variety of choices on daily menus, cutting staffing, and deferring or canceling equipment investments. Many schools reported serving anywhere between 50%–74% fewer meals than usual and an article published in Education Week in September 2021 reported some school districts had reached the point where they are encouraging parents to pack lunches for their children, an action that would result in even further financial loss to SNPs (Lieberman, 2021).

Strategies

Participation Rates. The following strategies to maintain or increase SN participation rates were identified by Jowell et al. (2021): develop modalities to increase home-to-school and school-to-home communication; prioritize communications that are culturally, linguistically, and technologically accessible; develop mechanisms to support local sourcing by identifying certain school districts to serve as food hubs, and institutionalize emergency accessibility operations for school meals.

Training. It can be inferred that the shift from status quo meal-service models to those implemented during the pandemic greatly impacted the training needs of SN professionals during this time. Thus, as a leader in developing national training resources for child nutrition professionals, ICN collected data on training and resource suggestions from SN directors and SAs during Phase I. Because some of the emergency meal provision methods developed by SNP operators during the pandemic have required non-foodservice staff (i.e., administrators and teachers) to be involved with meal service, suggestions were made about training and resources that could be developed for both foodservice and non-foodservice staff. For instance, one training suggestion made for non-foodservice staff was the need for explanatory videos geared toward teachers that discussed school meal components and meal considerations for schools (ICN, 2020).

Supporting SNPs. As state-level administrators of SNPs, SAs played a pivotal role in helping local SNP operators as they navigated the pandemic. According to McLoughlin et al. (2020), shortly after school closures were announced due to the pandemic, nearly all SAs developed webpages on their state’s website to communicate information pertaining to SNP operations amidst the pandemic. This is consistent with Phase I findings, noting the maintenance of these SA webpages as one of the top strategies SAs identified to continue to support SNPs in the upcoming school year (ICN, 2020).

Emergency Meal Preparedness. Patten et al. (2021b) gathered qualitative data from nationally representative and purposively sampled SN directors to describe the emergency responses used as well as personal experiences and primary concerns (e.g., many felt shocked at how little time they had to transition to emergency feeding). Patten et al. (2021b) discussed recommendations based on findings from the study with regard to improving employee responses in future emergencies.

Implementation research conducted by Connolly et al. (2021), Jablonski et al. (2021), Jowell et al. (2021), and McLoughlin et al. (2020b) evaluated emergency feeding responses in specific regions to identify qualities of the most effective responses, to inform future emergency feeding preparedness plans. Cross-sector collaboration, tailoring programs to community needs and resources, identifying strategies to facilitate participation, and encouraging flexibility and resiliency were some of the qualities identified by Connolly et al. (2021), Jablonski et al. (2021), and Jowell et al. (2021). McLaughlin et al. (2020b) recommended promoting the consumption of high-quality foods, providing information on the nutritional content of meals, and providing written information in multiple languages to improve future emergency feeding strategies.

Transitioning

Calvert et al. (2021) employed the Readiness Heuristic to identify specific factors that influenced a school’s willingness and ability, and thus readiness, to transition to emergency meal service during the pandemic. Findings from Calvert et al. (2021) show the following three factors influenced schools’ willingness to transition to emergency feeding— (1) the extent to which providing emergency meal service was compatible with the existing role and resources of the school (simplicity/compatibility); (2) the amount of priority schools placed on providing emergency meal service (priority); and (3) how much schools perceived emergency meals were needed by the community (observability). Factors that influenced a school’s ability included process capacities, resource capacities, staff capacities, internal operations, and inter-organization relationships.

Existing literature pertaining to how SNPs plan to transition their operations post-pandemic is limited; however, the SNA released the findings of a back-to-school survey open between May and June 2021 that was performed to evaluate SNPs’ readiness to operate during the 2021–2022 SY in the aftermath of COVID-19 (SNA, 2021b). Findings from the survey highlighted SNPs forecasted concerns of readiness to meet meal pattern mandates, food supply chain disruptions, and labor shortages (SNA, 2021b).

Meal Pattern Mandates. School nutrition programs experienced greater difficulty in procuring products that enable them to prepare nutritious meals that align with federal standards. Products often found in SNP menu plans (such as low sodium, whole grain tortillas) are the first

to be eliminated from manufacturers who have been forced to "streamline" their services to accommodate labor scarcity and other food supply chain issues (Shanker, 2021). Nearly half of respondents from the SNA back-to-school survey reported they were not ready to meet Sodium Target 2 limits in the upcoming SY, and almost all either did not believe or were not sure they would be able to meet the final target for sodium restrictions when they take effect in the 2022 SY. Many respondents (69%) indicated that meeting the whole grain requirement would be a moderate to significant challenge (SNA, 2021b).

Food Supply Chain. The COVID-19 pandemic caused major disruptions to food supply chains at various levels (Felix et al., 2020). When it came to planning for the 2021–2022 SY, most of the concerns respondents had revolved around pandemic supply chain disruptions and staff shortages (SNA, 2021b). These disruptions negatively affected the operations of food manufacturers and distributors (hereafter collectively referred to as "industry professionals") that service SNPs as well. As industry professionals worked to meet the needs of SNP operators while navigating these disruptions, their critical role in the successful operation of SNPs was highlighted. The following section discusses the food supply chain disruptions experienced by industry professionals and how these disruptions impacted the operations of SNPs.

On June 30, 2021, the president of the SNA sent a letter to the USDA Secretary Tom Vilsack to make him aware of problems related to the food supply chain being experienced by school-industry professionals that could have a negative impact on SNPs as they prepare for the 2020–2021 SY (Ross & Montague, personal communication, June 30, 2021). According to the letter, US Foods, a national food distributor and popular vendor among SNP operators, notified school districts in Florida, Kansas, and Pennsylvania that they would be unable to serve their school meal programs in the upcoming SY due to "labor shortages and warehouse capacity." Food supply chain disruptions were further discussed in a featured article in SNA's digital magazine in August 2021 (Sackin, 2021). According to Sackin (2021), labor issues were occurring because many companies were forced to cut personnel and streamline their services to offset the decreased revenue that occurred due to the sudden decline in business during COVID-19.

For schools, the nature of the problems being experienced by industry professionals translated to supply shortages, increased food and material costs, and delayed or canceled product deliveries. The USDA has taken several actions to help ease the challenges SNPs have experienced while operating during unexpected food supply chain disruptions. In addition to issuing waivers relaxing the school meal nutritional requirements, the USDA increased the reimbursement rates for school meals for the 2020–2021 SY to accommodate the increased cost of food and supplies (Summer Food Service Program, 2020). The USDA announced an investment of \$1.5 billion to help schools overcome the challenges of operating amidst supply chain disruptions (USDA, 2021), and though the increased federal aid will help, many SNPs will likely continue to face financial problems in the future. Kinsey et al. (2020) suggested that extending certain USDA waivers beyond the pandemic, particularly the non-congregate feeding waiver, could help increase program access to children in rural and underserved communities.

Adding to the existing literature detailing SN professionals' experiences, the purpose of the COVID-19 Taskforce, Phase II study was to build on Phase I by exploring the challenges and realities faced by SN professionals supporting and serving meals through another transitioning

period of the COVID-19 pandemic. Specific objectives and research questions for this study are outlined below.

Research Objectives

1. Identify and describe the major operational changes/strategies that SNP operators are implementing for the re-opening of schools for in-person instruction and/or remote learning and to promote access to school meals.
2. Explore emerging trends and future implications that will impact SNP meal service and future training and technical assistance requirements.
3. Assess the training, technical assistance, and resource needs of SAs and SFAs as SNPs develop plans for SY 2021–2022 program operations.

Research Questions

1. What does the SN environment look like during this time of transition?
2. How are SN professionals making the transition to SY 2021–2022?
3. What support will help them be successful during the school year?

METHODS

Sample

Recruitment

The researchers used a purposive criterion sampling strategy to recruit a nationally representative sample size of SA, SFA, PC, and industry professionals (manufacturing, brokers, and distributors). The subject matter experts (SMEs) used their experience and contacts in Child Nutrition and industry colleagues to recruit participants in each of the seven USDA Food and Nutrition Service (FNS) regions.

The focus group recruitment was based on obtaining 54–90 participants total, selected via convenience sample representing the seven USDA FNS regions. The SMEs aimed to recruit six to 10 participants for each group staying within the guidelines of Krueger and Casey (2000). The targeted breakdown of focus group recruitment is as follows: The SA Groups consisted of directors and technical and training staff. The SFA groups were separated into small, medium, and large with respect to their school district size. Purchasing consortiums remained whole as one group. Lastly, the industry groups consisted of brokers/manufacturers' representatives, distributors, and manufacturers.

Participants

State Agency Directors and Technical and Training Staff. State agency directors and technical and training staff representing each of the seven USDA FNS regions were invited to participate. Of the invited participants, nine of 10 SA directors completed an online questionnaire, and eight participated in a virtual focus group. All SA technical and training staff invited completed an online questionnaire and participated in a virtual focus group (n=11).

School Food Authorities. A total of 23 SFAs were invited, and 18 completed an online questionnaire and participated in a focus group. Of the eight invited SFAs from small districts, five participants completed an online questionnaire and participated in a virtual focus group. Three invited participants did not complete a questionnaire or take part in a focus group due to being ill with COVID-19 or work conflicts. Seven SFA participants from medium districts completed a questionnaire, and all participated in a virtual focus group. Finally, six of the eight invited SFA participants from the large districts completed a questionnaire and participated in a focus group.

Purchasing Consortium. Seven individuals leading PCs from four of the seven USDA FNS regions were invited to complete an online questionnaire and participate in a focus group. Six of them responded to a questionnaire and attended a virtual focus group (n=6).

Industry. Twenty-six industry partners who provided services in all seven USDA FNS regions were invited to participate in the study. All of them (100%) participated in three virtual focus groups with the following participant breakdown: distributor (n=9), manufacturer (n=8), and brokers/manufacturers' representative (n=9).

Research Design/Instrumentation

The researchers employed both a quantitative and qualitative research design in this study. Participants were asked to complete a questionnaire via email link to SurveyMonkey, made up of multiple-choice and open-ended questions prior to their involvement in a virtual focus group via zoom, where they were asked to answer open-ended questions communicated to them by the moderator. On the pre-focus group questionnaire, SA professionals answered questions about meal-service models utilized and training formats, lengths, and topics. The SFA and PC professionals responded to questions about demographics, participation, free- and reduced-meal eligibility, meal-service models, and training formats, lengths, and topics.

The questionnaire received by participants varied based on which sample group they belonged to, as did the focus group script. The industry-professionals focus group was conducted before the focus groups with the SAs and SFAs. Researchers used industry focus-group results to inform the SA and SFA's focus-group discussions. Focus group questions for all groups are provided in Appendix A.

Data Collection

In August 2021, all potential participants received an email containing an invitation to participate in a 60–90-minute focus group and a description of the purpose and procedure of the study. Upon agreement to participate (indicated via email response from the participant), the Zoom meeting link, a consent form, and a link to a SurveyMonkey questionnaire were provided. A confidentiality statement and proof that the study was reviewed and approved by the Institutional Review Board (IRB) were included in the email correspondence. Reminder emails were sent to all participants two weeks prior and one day prior to the focus group meeting.

An SME performed the moderator tasks for all focus groups, and another SME moderated the chat box while the focus group was ongoing. At the beginning of each focus group, the moderator reviewed the goals and objectives, explained the ground rules for a virtual meeting, and introduced the participants. Each focus group was recorded on the virtual platform employed for the focus groups (Zoom), and a written transcript of the recordings was generated by the Zoom platform. The recording transcripts were downloaded and checked for accuracy by the researcher, using line-by-line comparison to the audio/visual recording. Any errors in transcription were corrected by the researcher prior to the transcripts' use for analysis.

Data Analysis

Analyses focused on documenting and understanding the participants' experiences to develop the appropriate training and support to guide the transition to post-pandemic meal service. For the questionnaire responses, descriptive statistics were calculated for all rating and ranking questions. Responses to open-ended questions were categorized, and frequencies were computed.

Reliability

Quantitative research influences reliability concepts for qualitative research, even though the research methods are different. O'Connor and Joffe (2020) stated that inter-coder reliability (ICR) is often used interchangeably with interrater reliability (IRR), even though they are different. They clarify that ICR is "a numerical measure of the agreement between different coders regarding how the same data should be coded" (p. 2) and applies to nominal data. The IRR refers to data rated on an ordinal or interval scale.

Within qualitative research, ICR is the amount of consistency between researchers who independently code the same document within an agreed-upon framework. The assessment of ICR ensures the process and transparency of the coding scheme and how it was applied to the data (O'Connor & Joffe, 2020). Neuendorf (2002) examined the literature on qualitative data reliability and stated that reliability coefficients of .90 or greater would be acceptable "to all," and .80 or greater would be acceptable "in most situations" (p. 143). Anything below .80 typically has the most disagreement about acceptability. The ICR establishes basic validation of the chosen coding scheme (Neuendorf, 2002). Reliability is built into the coding process when a coding framework is developed and applied systematically to the data. Threats to reliability include a poor coding scheme, poor coder training, coder fatigue, and a rogue coder (Neuendorf, 2002).

Neuendorf (2002) and O'Connor and Joffe (2020) stated that pilot reliability is conducted on a randomly selected subsample of the total sample pool before the study undergoes a complete coding. The two independent coders receive the same sample to code. The coding scheme is then changed if the pilot test indicates a great deal of inconsistency between the coders due to problematic measures (e.g., poor coding instructions), problematic codes or categories, or problematic coders. Pilot reliability can be conducted multiple times until acceptable reliability is achieved (O'Connor & Joffe, 2020). The final reliability test should not include any subsample used in the pilot test. The final reliability test is conducted on another randomly selected subsample and reported as the study's reliability results. Subsample size has no set standard.

The ICR should be analyzed after independent coders have completed their coding and reported separately for each measured item (Neuendorf, 2002). Inconsistent coding between the coders should be identified, discussed, and resolved before moving forward into more conceptual interpretations (O'Connor & Joffe, 2020).

Inter-coder reliability was established using Neuendorf's (2002) recommendations. For nominal measures, Neuendorf (2002) suggested computing simple agreement for inter-coder reliability: $PA = 2A / (n_A + n_B)$. Where PA is "proportion agreement, observed," A is the number of agreements between two coders, and n_A and n_B are the total numbers of units coded by the two coders, respectively. The resulting value ranges from .00 (no agreement) to 1.00 (perfect agreement).

While a level of agreement can be statistically computed, it is helpful to make a qualitative comparison of which codes were not agreed upon and how dense each researcher coded the text (Elliott, 2018; Richards, 2015). Also, as Skjott Linneberg & Korsgaard (2019) discussed, diverse perspectives and previous experiences of the researchers are strengths of the analysis and can produce a more comprehensive interpretation of the data. Richards (2015) says

that reliability tests should be interpreted with caution as a researcher's understanding of the data will change over time.

The two coders received a randomly selected subsample to code, and reliability was calculated. If the reliability was less than .80, inconsistencies were identified, discussed, and resolved, and another randomly selected subsample was coded until acceptable reliability was reached. For all groups, acceptable simple inter-coder reliability was .90 to 1.00.

Coding

After inter-coder reliability was established, the researchers identified all instances of each code and computed frequencies for each code. However, a code's high or low frequency was not used as a sole measure of importance, as unique codes may indicate a new perspective offered by participants (Elliot, 2018). The researchers included specific examples of each code, including any outliers in the data, which ensured that the experiences of any dissenters were included (Onwuegbuzie, et al., 2009; Skjott Linneberg & Korsgaard, 2019).

Content analysis was used to code and analyze the focus group data. The coders used line-by-line coding for all groups. Although there is disagreement on the best unit of analysis for focus group data, most focus group researchers utilize the group as the unit (Morgan, 1997), which was used for this analysis. Bearing in mind the research question, the researchers coded the participants' experiences relating to each specific focus group question (Skjott Linneberg & Korsgaard, 2019). Each focus group question served as an independent category against which the codes were developed. To preserve confidentiality, all individual names contained within the transcripts received a four-digit alphanumeric code.

For the industry group, codes were developed inductively (emergent coding) as no theoretical schema existed for the industry focus groups (Neuendorf, 2002). Emergent coding, which identifies phrases or terms used by the participants themselves, allows the codes to align as close as possible to the data (Elliott, 2018). The researchers independently coded a transcript of one industry group and established a consistent codebook. The initial list of codes was reviewed for overlap and duplicity. The two coders collaboratively revised the coding list to make them consistent, as Elliott suggested (2018). Codes were organized into categories based on each question asked in the focus group. Coders recoded the remaining industry transcripts using the revised codebook.

For the SA director and technical and training staff groups, the SMEs developed a list of codes before they conducted the focus groups. Coders used this list to analyze the transcripts of SA groups and added any relevant codes that emerged from the data. The SMEs used the codes developed for the SA groups and added the remaining codes for questions pertaining only to SFAs and PCs before their focus groups.

RESULTS

The results section is organized by study sample, beginning with SFAs, then SA directors and technical and training staff, purchasing consortiums, and, lastly, industry professionals. Descriptive information collected via the questionnaire is presented at the beginning of SA, SFA, and PC groups' results section, followed by focus group data. Usefulness rankings of training topic, format, and length collected via the questionnaire are provided last, within the results sections of SA, SFA, and PC groups. Some responses refer to the appendices for further detail or to provide context to some of the textual responses provided.

State Agency Directors & Technical and Training Staff

Descriptive Information

The alternative meal service models utilized by SA Directors and Technical Staff in SY 2020–2021 and SY 2021–2022 are reported in Table 1.

Table 1

State Agency Directors and Technical Staff Reported Alternative Meal-Service Models Utilized in SY 2020–2021 and SY 2021–2022

Meal-Service Type	SY 2020–2021		SY 2021–2022	
	Directors	Technical Staff	Directors	Technical Staff
	(n=9)	(n=11)	(n=9)	(n=11)
Meals served in the classroom or other on-campus location	8	11	9	11
Meals served in the cafeteria, but students took meals to the classroom or other on-campus location	8	10	9	11
Curbside meal pick-up	9	11	9	8
Meal delivery to homes	7	10	3	5
Meal delivery to summer feeding sites	6	8	0	0

Note: Multiple answers allowed.

(Table 1 continues)

(Table 1 continued)

State Agency Directors and Technical Staff Reported Alternative Meal-Service Models Utilized in SY 2020–2021 and SY 2021–2022

Meal-Service Type	SY 2020–2021		SY 2021–2022	
	Directors	Technical Staff	Directors	Technical Staff
	(n=9)	(n=11)	(n=9)	(n=11)
Meal delivery to distribution sites (Boys and Girls Club, high-need areas, etc.)	6	7	0	1
Weekly meal box pick-up	8	11	5	6
Weekly meal box delivery to homes	6	10	1	4
Weekly meal box delivery to summer feeding sites	4	8	0	0
Weekly meal box delivery to distribution sites	4	6	0	1
None: No change from regular meal service models	1	0	1	0
Other (please specify)	0	0	1	0

Note: Multiple answers allowed.

Strategies Implemented

Communication with Staff. Both directors and technical staff used online platforms to communicate with staff. Additionally, technical staff utilized in-person meetings and email for communications. Technical staff felt that any method where they could see the other person's face was effective in gauging how the information was being received and the level of understanding. One technical staff participant stated, "We can actually see expressions and see how the information is being received, so that's helped a lot." Another technical staff participant also mentioned the ease of collaboration when using an online platform.

Communication with SFAs. Regarding communicating with SFAs, both directors and technical staff discussed how important phone calls are for reasons such as personal nature, immediacy, and familiarity. Both groups also used online platforms, newsletters, and email along with methods such as web pages/internet sites or broadcast systems. Some technical staff mentioned texting only because that is the way they were receiving inbound communication

from SFAs. Technical staff described responding to SFAs "at all hours" and being "helpful on an emotional level ... not just providing information."

Staff Well-Being. Both SA directors and technical staff employed several strategies to support the well-being of staff and strengthen relationships through team-building exercises, virtual group celebrations, networking, or using emotional intelligence skills such as empathic listening. Both groups also encouraged or supported time off, and some directors bought personal gifts or were able to get special pay increases for staff. The technical staff mentioned using state wellness resources and having weekly wellness checks as well.

Emergency Preparedness. Directors and technical staff were asked about new procedures their SA has developed or implemented related to emergency preparedness plans. Each group talked about specific actions, such as creating or improving upon an existing plan, adding resources or staff, and replacing manual systems with electronic ones. A few directors and technical staff spoke about the need to continue training, have resources to train, and the desire for foodservices to be included in statewide emergency planning. Specific comments are included in Appendix B-1.

Professional Development. State agency directors perceived professional development training hours as decreasing or staying the same, and technical staff thought they had increased. This discrepancy in perceived training hours allotted for professional development between SA directors and technical staff could be the result of different professional development needs and interest levels between respondents at this time. A technical staff reported external factors such as stress, increased participation, fewer staff members, and lack of product contributing to the decrease in interest in professional development training. Decreased interest in the training subject could contribute to the perception that more time than necessary was being spent on it or the perception that the training hours for that subject had increased.

Participants also described other attributes of the current training situation. For example, directors mentioned that the training format and schedule had changed from longer training to shorter training, even "bite-sized pieces" of material. Technical staff spoke about the current trainings being more effective due to the briefer, more focused format. They also mentioned frequently hearing that in-person training is preferable but noted the ample virtual opportunities not only through the SAs but through the ICN and SNA.

Key Challenges

Back-to-School. Regarding their biggest back-to-school challenge, SA directors focused on external factors such as logistics and systems, Electronic Pandemic Benefit Transfer, and supply chain issues. Human resource challenges included staffing issues, fielding concerns from the local districts, and the toll on employees' emotional/mental well-being. The SA technical staff also focused on staffing issues such as new foodservice directors and the retirement of existing directors. However, given their responsibilities, training issues, such as determining the best method of training and staff not having the time or capacity to attend training, were a topic of conversation. Providing accurate and clear guidance and updates was also mentioned by technical staff.

Operational. The SA directors and technical staff differed in what they identified as their greatest operational challenge for meal delivery/service this school year (Appendices B-2 and B-3). Directors again mentioned logistics and supply chain issues. Communication in terms of messaging to the public, giving schools a timely response, and trying "to explain those hundred-plus waivers and programs" were considered to be very difficult. Directors also mentioned dealing with and adjusting to the many changes and then making decisions based on the sole goal of feeding the children as other operational challenges.

Technical staff talked about supply chain issues and the logistics of meals as well, specifically mentioning the challenges in dealing with allergies and special diets in light of the supply chain issues. The labor shortage was agreed to be a tremendous operational challenge. Technical staff also identified nuanced challenges not mentioned by directors, such as working with different schools and communities, concern about the perception of the program, and paperwork and documentation issues (Appendix B-3).

Training. Regarding training challenges, both directors and technical staff identified the intended audiences' lack of time, keeping the trainees' attention when doing virtual training, and staff turnover. Technical staff responses added more depth to training challenges with their concerns about achieving and determining competency, reaching everyone, finding the best training method within the wide variety available, and safety/travel concerns. Technical staff also mentioned technology challenges within the SNP audience when training. Specific comments can be found in Appendix B-4.

Trainings/Resources

Needs. State agency directors and technical staff were asked about the resources needed to provide effective training to SFAs during the focus group. They agreed that the most valuable items would be the following: standardized curriculums that could be customized based on state-specific guidelines or district needs; training materials that applied to the needed topics; and resources that could be shared within a central repository. Technical staff also reported that they do not always know what resources are available and would like feedback from schools to help identify what training resources are needed. For example, one technical staff participant said, "I don't know what's out there to even choose from besides Zoom." More information is provided in the sample comments below.

- "It would be nice if there were syllabi or editable PowerPoints or document fact sheets that had some context setting at the beginning, kind of like the regulations, here are the waivers, here are best practice, but yet then make it editable so that we could add our SA-specific information ... maybe related to our data system or specific tasks that the SFAs need to do ... maybe for some things like factsheets, maybe even something that SFAs could add to their specific SFA if it's a fact sheet or parent newsletter or something like that."
- "If we were to share with one another what our trainings look like ... we're all training on the same things just with our state-specific nuances."

- "There's been times where I might go hunting ... I might pull up Florida; I might pull up Texas, and then trying to scan and look ... what do they have if this was a more facilitated effort that would save us time."
- "As a national program, it would be really beneficial to have a curriculum to follow that gives the basis, which is the federal requirement, and then ... how this is accomplished in your state. There's ... so much duplication of effort."
- "We need to focus more on virtual data collection, in other words, surveys, polls, etc., to hear more from the schools."

Recommendations for State Agency Staff. The training topics suggested by SA directors are civil rights, verification, benefit issuance, resource management training, counting and claiming (in normal times), and USDA Food distribution understanding. The trainings recommended by SA technical staff are how to assist districts in creating contingency plans for crisis/emergency situations, food production/culinary skills needed for scratch cooking, and time-saving/efficiency tips, including equipment usage recommendations.

Recommendations for District-Level Staff. State agency directors recommended the following training topics for district-level staff: food production relating to supply chain disruptions and staff shortage, culinary training (e.g., how to cook), storage and distribution models, verification training, civil rights, and supply chain management. State agency technical staff provided recommendations for training related to defining a non-SN individual and their capacity in foodservice, staff retention, recruiting, sourcing food and supplies, and counting and claiming meals in SNPs. One SA technical staff commented that the training emphasis should be on 2022–2023 as this year's training plans are already in place. The last comment stated that staff shortages, supply chain issues, and prioritizing feeding the children were factors responsible for limited training time beyond the basic training needs.

Recommendations for Site-Level Staff. Comments were provided by both SA directors and technical staff regarding training needs at the site level. One SA director commented that while all the topics are relevant, SA staff would not be equipped to provide the training and need to secure it from another source. Alternative packaging/serving methods for meals (including meals that do not require utensils such as fruits and vegetables) and counting and claiming meals in SNPs were suggested by technical staff as two additional training topic needs at the site-level.

Training Preferences

Various training formats and lengths for SA staff were ranked for usefulness as part of the pre-focus group questionnaire. The results of those rankings are below.

Format. State agency directors and technical staff agreed that the best three training formats were interactive virtual training, face-to-face training, and webinars. They also agreed that digital resources, self-paced online courses, and printed self-guides were the least useful. Additionally, participants mentioned the need for different training formats based on staff type, the need to ensure engagement and comprehension, and to produce short training materials that can be repurposed.

Length. State agency directors and technical staff ranked training length in the order of usefulness. Both groups ranked 30- and 60-minute training sessions as most useful and four- and six-hour sessions as least useful. Both agreed that the length of training depends on the topic of training.

Future Implications/Recommendations

At the end of the focus groups, participants were allowed to share anything about their experiences in meeting the challenges of the SY 2021–2022, as well as any recommendations they may have. All comments provided by SA directors and technical and training staff are included in Appendices B-5 and B-6, respectively.

School Food Authorities

Descriptive Information

Table 2 describes the alternative meal-service models utilized by small, medium, and large SFAs in both SY 2020–2021 and SY 2021–2022.

Table 2

Alternative Meal-Service Models Utilized by Small (n=5), Medium (n=7), and Large (n=6) SFAs

Meal-Service Type	SFA Size	SY 2020–2021	SY 2021–2022
	Small, Medium, Large	n	n
Meals served in the classroom or other on-campus location	Small	3	2
	Medium	5	5
	Large	6	5
Meals served in the cafeteria, but students took meals to the classroom or other on-campus location	Small	2	1
	Medium	5	5
	Large	6	5

Note: Multiple responses allowed.

Table 2 continues

(Table 2 continued)

Alternative Meal-Service Models Utilized by Small (n=5), Medium (n=7), and Large (n=6) SFAs

Meal-Service Type	SFA Size	SY 2020–2021	SY 2021–2022
	Small, Medium, Large	n	n
Curbside meal pick-up	Small	4	0
	Medium	7	4
	Large	6	2
Meal delivery to homes	Small	3	0
	Medium	4	1
	Large	2	0
Meal delivery to summer feeding sites	Small	2	0
	Medium	5	2
	Large	1	0
Meal delivery to distribution sites (e.g., Boys and Girls Club and high-need areas)	Small	1	0
	Medium	3	2
	Large	2	1
Weekly meal box pick-up	Small	3	0
	Medium	5	4
	Large	3	1
Weekly meal box delivery to homes	Small	2	1
	Medium	4	1
	Large	3	1
Weekly meal box delivery to summer feeding sites	Small	2	0
	Medium	2	1
	Large	0	0
Weekly meal box delivery to distribution sites	Small	2	0
	Medium	2	0
	Large	1	0

Note: Multiple responses allowed.

Table 2 continues

(Table 2 continued)

Alternative Meal-Service Models Utilized by Small (n=5), Medium (n=7), and Large (n=6) SFAs

Meal-Service Type	SFA Size	SY 2020–2021	SY 2021–2022
	Small, Medium, Large	n	n
None: Meals served in the cafeteria	Small	1	4
	Medium	3	5
	Large	1	1
Other	Small	1	0
	Medium	1	1
	Large	2	0

Note: Multiple responses allowed.

Table 3 provides participants' reported average (M) current enrollment, participation, and eligibility percentages for SFA participants from small, medium, and large districts.

Table 3

Description of Small (n=5), Medium (n=7), and Large (n=6) District SFAs

	Small	Medium	Large
Characteristic	n (M)	n (M)	n (M)
Current enrollment	5 (1,602)	7 (6,804)	5 (66,934)
Current average daily participation	5 (67%)	7 (66%)	5 (60%)
SY 2020–2021 average daily participation	5 (58%)	7 (53%)	4 (37%)
Current free and reduced eligibility percentage	5 (59%)	6 (46%)	6 (43%)
SY 2020–2021 free and reduced eligibility percentage	5 (57%)	7 (42%)	6 (50%)

Strategies Implemented

Communication. Participants from small SFAs used texting, phone calls, social media, webpages, or other internet sites to communicate with students, parents, and staff. However, they did not comment on why they thought these methods were most effective. Medium SFAs also used social media and phone calls, along with in-person and email communication. For example, one participant stated that calling someone allowed them to answer in a way that email did not allow. Large SFAs also used phone calls to promote a better understanding than email provided. In addition, newsletters, in-person communication, and webpages or other internet sites were used by large SFAs. One participant described communicating via a school's webpage as convenient and allowed the information to be on-demand "so parents can snatch it all."

Staff Well-Being. School food authority participants shared interventions they used to support the well-being of their staff. Participants across all groups mentioned listening and using emotional intelligence strategies, ranging from allowing staff to vent to checking in with them. Participants in small and medium SFAs provided personal cards, gifts, or food, encouraged or supported time off, focused on recognizing staff, and networked with peers. For example, one participant from a small SFA said, "We're calling [other districts] saying what are you doing. We do a lot of talking amongst each other, supporting each other, giving each other ideas, and asking how are you making it work, what are your challenges, how are you, how are you making it better."

Medium and large SFAs focused on wellness activities, sent encouraging emails, videos, etc., and passed educational articles to staff. One example was given by a participant from a medium SFA, "I would do research on what would help me get through the next 10 minutes today or tomorrow and the things that I found to be effective for me ... I would just share that out." Other strategies mentioned were interacting with the students, team-building activities, fun activities, and using state or district resources.

Emergency Preparedness. When asked about emergency preparedness plans, all SFAs responded by implementing either new systems and processes or new or improved plans, such as different protocols, updated communication tools, and new meal-service models. In addition, small and medium SFA participants discussed their experiences with gathering and evaluating available data or information to help inform revisions and future actions. Specific comments provided by small, medium, and large SFA participants are provided in Appendix C-1.

Professional Development. Professional development training hours have been impacted differently across the SFAs. Small SFA participants all reported a decrease in hours, while participants from medium SFAs reported an increase. Participants from large SFAs were split between reporting an increase and a decrease. One participant noted, "They've been getting caught up on their paperwork" with any free time.

Key Challenges

Back to School. All sizes of SFAs struggled with staffing challenges when they returned to school in SY 2021–2022. Not filling open positions and having staff in quarantine were noted as specifics of the staffing challenge. Small and large SFAs identified social distancing and mask requirements as challenges. Participants from small SFAs had additional observations concerning staff; the emotional/mental toll on staff was evident, and staff had to operate under changes and adjust, such as using different meal-service models (e.g., in-person versus remote). Medium SFA participants mentioned challenges related to getting products (e.g., supply chain issues, delivery issues, and procurement) and then challenges once they had products, such as menu compliance. Specific comments provided by small, medium, and large SFA participants are provided in Appendix C-2.

Operational. School food authorities of all sizes identified operational challenges related to supply chain issues, increased participation, and labor shortages. For example, one participant from a small SFA remarked, "I literally have three cafeterias; there was one day I had four employees." Medium and large SFAs discussed challenges related to all the changes and adjustments staff had to make, such as new customers, new families, and new menu planning. In addition, large SFAs noted several operational challenges not discussed by small or medium SFAs, including communication issues, customer satisfaction, delivery and vendor issues, and price increases for food and supplies. Small, medium, and large SFA participants' comments are provided in Appendix C-3.

Training. At least one participant from each size SFA identified the greatest challenge in providing effective training to staff was reaching everyone and the staff having no time to train. There were numerous challenges in providing effective training identified that are reported in Appendix C-4.

Resource Needs

Procurement. Participants were asked what resources they needed for procurement (Appendix C-5). All groups mentioned reduced paperwork. As one large SFA participant stated, "Is there a way to streamline the expectation of paperwork?" Small and large SFA participants identified flexibility and waivers as procurement resources needed. Participants acknowledged the helpfulness of the waivers and desired continued waivers and flexibility to be able to operate and pass reviews until they "are back to somewhat of a normal situation." Participants from medium SFAs requested resources related to the USDA, such as a standardized regulation interpretation and prompt responses to questions. Large SFA participants reported a challenge with finding vendors that can and want to meet demand. One participant said, "I'm really worried that people are going to step away from the table working with K–12 in general."

Food and Supply Costs. Regarding food and supply cost resources, small and medium SFA participants agreed that the higher reimbursement rate needed to be maintained. For example, a medium SFA participant drew a comparison to the restaurant industry: "I need money like the restaurants in the area. I watch company after company and distributor after distributor drop K–12. I'm trying to put a full meal on a tray for a dollar or close to a dollar, and the restaurants get to hang up a sign that says sorry our prices increased ... "Large SFA participants

requested other resources such as a blueprint or plan for dealing with the situation, timely and current information, and cash in lieu of commodities. One participant observed that USDA needs to understand the current situation. "We need some level of understanding of our real plight in Washington. We need people to know that ... [this] is not going to end in June 2022."

Food Supply. Requested food supply resources varied among different size SFAs (Appendix C-6). Participants from small SFAs requested more USDA Foods or greater entitlement, a flexible distribution process or plan, and more waivers, including multi-year procurement waivers. Both medium and large SFAs wanted to move vendor accounts or process agreements and noted challenges with the USDA sweeps. However, large SFAs participants discussed other resources needed that the other SFA groups did not mention. For example, they wanted some way to know what products were available, what vendors were able and willing to meet their demand, and having positive media about SNPs. As one participant recounted, "[We have] unusual media issues with parents, thinking we are being derelict in our duty, sometimes without giving them what they need ... we need some backup"

Labor Shortages. Across all SFA groups, resources requested for the labor shortage generally fit into three categories: financial resources (e.g., competitive wages), recruitment and retention ideas and support, and training (Appendix C-7). Participants gave ideas such as benefits (e.g., retirement programs), promotional materials about jobs in SN, and turnkey onboarding resources for new employees. In addition, participants from large SFAs mentioned resources for increasing efficiency in the kitchen to automate and reduce labor needs.

Training. Desired resources to help with training challenges centered around having standardized yet customizable materials, having access to existing training resources, and relevant training materials such as small snippet training videos (Appendix C-8). Small and medium SFA participants mentioned needing presenters to deliver the training. One medium SFA participant requested help with finding bilingual training resources. Finally, participants from large SFAs wanted technology training and better presentation design or platforms to use.

Other. When given the opportunity to identify other resources needed, only a few participants from the large SFA group responded. They requested communication templates using standard language to assist in explaining the situation and support for their staff, who are constantly having to manage changes.

Technical Assistance Needs

Procurement. Desired technical assistance resources for procurement varied among the different sized SFAs (Appendix C-9). Small SFAs wanted help attracting vendors such as procuring from local farmers and up-to-date information on procurement rules. Medium-sized SFA participants also mentioned wanting information on procurement and boilerplate USDA information for bids to avoid citations. Finally, large SFA participants desired technical assistance with procurement reviews and helping their districts understand how procurement in SN differs from procurement in other sectors.

Food and Supply Costs. Only participants from small and medium SFAs had requests for technical assistance concerning food and supply costs. Small SFA participants identified the

need to utilize every product they had available, given the cost increases, and wanted help finding vendors as their selection is limited in their area. Medium SFA participants requested help using indexes or formulas to determine price increases.

Food Supply. Participants from medium SFAs did not identify any needed technical assistance for food supply issues. However, small and large SFAs wanted technical assistance in handling substitutions and modifying their menus (Appendix C-10). In addition, small SFA participants wanted supply chain training and communication assistance among stakeholders, as well as assistance with how to hold vendors accountable. Large SFAs wanted help in understanding compliance issues (e.g., Buy American) and training for SNP and vendors to understand their respective systems. As one participant described it, "We need to come together [with manufacturers], and we need to have some level of training to help people understand the impact of their decisions and our decisions and help us to try to come to a medium that yields better outcomes."

Labor Shortage. All SFA groups identified staff training resources as needed technical assistance to address the labor shortage and save them time and effort by not having "to recreate any wheels." In addition, two participants from small and medium SFAs requested technical assistance for recruiting staff and help in conducting a salary review.

Other. Only one participant from a large SFA had an additional request for technical assistance. That participant wanted help in continuing to speed up meal service.

Training Preferences

SFAs ranked the usefulness of various training formats and lengths in the pre-focus group questionnaire. The results are provided below.

Format. All SFA sizes ranked face-to-face trainings as the most useful format. Interactive virtual trainings, workshops, and digital resources were rated as second most useful for Medium and large SFAs, and printed self-guides were the second most preferred training format for small SFAs. Comments provided by participants are below.

- "In-person is always best. Staff enjoy getting to meet new people and get new ideas."
- "Cooking videos work well when they show full batches and not a smaller version."
- "My staff prefers in-person training, but they were able to use virtual trainings successfully during COVID-19."
- "My staff does not have the resources or skills to do online training."
- "My staff still struggle with technology."
- "We need training materials in Spanish and other languages."
- "Because of either technology skills or not speaking English as their first language, virtual trainings are not used or not effective."
- "I intend to develop more online self-paced training and videos."

Length. Participants were asked to rank six training lengths for usefulness.

Small, medium, and large SFA participants ranked "determined by topic" as the most useful training length for SN staff. Large SFA participants also ranked 30-minute and one-hour training lengths as useful. Comments provided by participants are below.

- "We do full-day trainings, but 'chunk it, so it is several short trainings to allow them time to get up and move around."
- "Training needs are based on the available time, e.g., a professional development day, as staff often do not want to report for only an hour."
- "One of their suppliers conducts quick 10-minute trainings, but it is challenging to get all staff together at one time in a busy kitchen."
- "Depends whether training is being conducted as part of a workday, so staff are paid."
- "I do not like to do more than four hours as engagement and retention of the material significantly decreases. Practices for adult learners should be followed."
- "The training should be interactive—steady talking will cause the learners to zone out."

Recommendations for Training Topics at the District Level

Procurement, financial management, and school meal component training for non-SN staff were identified by small SFAs as important trainings at the district level. Medium SFAs rated emergency crisis plans, increasing participation, and food production as the most important trainings at the district level, followed by succession training, new leader resiliency training, employee mindfulness and wellbeing, and hospitality. All large district participants rated procurement and emergency crisis plans as the most important, followed by increasing participation, food safety and sanitation for non-SN staff, diversity and inclusion, food production, and menu planning.

Two participants suggested additional topics for training as workplace safety and proper use of/procurement of equipment to support services, food allergen management, dealing with alternative requests and new protocols, and emergency and contingency planning "when plans A–D did not work."

Recommendations for Training Topics at the Site Level

All small district participants thought training on food production, food safety and sanitation, ingredient and menu substitution, allergens, PPE, and inventory management were the most important for site-level staff. Mental health and well-being, receiving food and supplies, diversity and inclusion, emergency crisis plans, financial management, and procurement forecasting closely followed. Medium SFAs said the following topics were most important for training at the site level: food production, allergens, ingredient and menu substitutions, and inventory management. Food safety and sanitation and mental health and well-being were also rated very important. Large SFAs rated the topics of food safety and sanitation, computer skills, and mental health and well-being as most important. Food production, procurement forecasting,

and ingredient and menu substitutions were also topics rated important for site-level training. Three participants provided comments:

- "The greatest need is materials translated into Spanish."
- "Mental health should be included at the district level as many people don't realize how many in management-level positions are on the edge of leaving our profession and are burnt out."
- "Suggested training topic of producing and serving meals in new ways."

Additional Information/Recommendations

At the end of the focus groups, participants were invited to share any additional information about their experiences in meeting the challenges of the SY 2021–2022 and any recommendations they may have. All comments provided by SFAs are provided in Appendix C-11.

Purchasing Consortiums

Descriptive Information

Table 4 demonstrates the alternative meal service models utilized by PC member districts in SY 2020–2021 and SY 2021–2022.

Table 4

Alternative Meal-Service Models Utilized by PC Member Districts (n=6) in SY 2020–2021 and SY 2021–2022

Meal-Service Type	SY 2020–2021	SY 2021–2022
	n	n
Meals served in the classroom or other on-campus location	6	5
Meals served in the cafeteria, but students took meals to the classroom or other on-campus location	5	5
Curbside meal pick-up	6	1
Meal delivery to homes	5	1
Meal delivery to summer feeding sites	6	1
Meal delivery to distribution sites (e.g., Boys and Girls Club and high-need areas)	4	1
Weekly meal box pick-up	6	1
Weekly meal box delivery to homes	2	1
Weekly meal box delivery to summer feeding sites	2	1
Weekly meal box delivery to distribution sites	2	1
None: No change from regular meal service models	2	4

Note: Multiple responses allowed.

The current combined enrollment of the PCs' member districts ($n=4$) ranged from 20,000 to over 1.2 million students. School sites represented ranged from 20 to 2,148. Average daily participation (ADP) in SY 2020–2021 ranged from 380 to 417,109 students ($n=6$) and current ADP ranged from 75 to 607,197 students ($n=4$). In SY 2020–2021, the average free- and reduced-eligibility percentage of the PC member districts ranged from 33% to 100% under the summer foodservice program ($n=4$). Only two participants responded with current average free- and reduced-eligibility percentages of their PC member districts, which were 74% and 100%.

Strategies Implemented

Communication. Email and online platforms were the communication methods PCs used with member districts. When discussing email communication, PCs reported that emails are not always read, and they searched for ways to get people to read their emails, which often

contained important information. Online platforms, such as Zoom, were lauded for reaching and engaging member districts and being an easy collaboration tool.

Staff Well-Being. In supporting the well-being of their member districts, PC participants used four methods (Appendix D-1). Participants spoke of listening to and talking with people about their frustrations, focusing on wellness, sending out educational materials, and recognizing them for positive things accomplished. A few participants mentioned wanting USDA support to help with the well-being of member districts. They envisioned this support as appreciative and explanatory, which would be communicated directly to member districts and the public and help "get away from the lunch-lady image."

Emergency Preparedness. Purchasing consortium participants talked about gathering and evaluating information and data regarding emergency preparedness plans. None of the participants talked about any new procedures being implemented. One participant expressed: "I'm not really sure. I think we just learned to turn on the dime ... I really don't know the answer."

Professional Development. All PC participants said that professional development training hours in the current situation have decreased. There were no additional comments.

Key Challenges

Back to school. The PCs' biggest back-to-school challenges were contract/bid issues, procurement, and supply chain issues (Appendix D-2). Purchasing consortium participants described contract/bid issues as distributors giving notice and changing bids and challenges with price changes. Procurement issues focused on finding suppliers and emergency procurement rules, while supply chain issues presented challenges related to food production.

Operational. The PCs' greatest operational challenges also included procurement and supply chain issues along with labor shortages, menu compliance, price increases, and vendor issues (Appendix D-3). One participant spoke of trying to procure buns locally from bakeries when they could not get their needed supply. According to one participant, a shortage of drivers affected deliveries to districts, which caused cases to be cut. Participants pointed out that menu compliance was challenging when substitutions were not nutritionally the same or did not meet allergy guidelines. Two participants talked about price increases on food and supplies that occurred regardless of delivery types (centralized vs. school-to-school) and the impossibility of schools absorbing those costs.

Training. Purchasing consortium participants' training challenges included lack of time and needed training materials. The PCs explained the lack of time for training was due to the labor shortage and having to deal with ordering food and menu changes. One participant said, "Doing orders right now, trying to figure out substitutions, and they're saying it takes three or four or five hours a day." Additional sample comments are listed below.

- "People are just so busy that they can't either attend online or they're unable to attend in person. They're just too busy because, going back to the labor shortage, we have directors actually serving on the lines. Never before had to do that, and they can't take time to come to training."

- "They don't have the time, and when they're not busy, they have to order the food, and then that's taking a lot. Doing orders right now, trying to figure out substitutions, and they're saying it takes three or four or five hours a day."
- "Until we can get this under control, I don't think we'll be doing a whole lot of training other than virtual. Probably more webinars recorded. Listen to when you have time, rather than trying to do in-person virtual meetings."

Resource Needs

Procurement. Resources needed for procurement were focused on three items: an emergency procurement process, flexibility and waivers, and a vendor database (Appendix D-4). PCs noted the need for guidance during this emergency and continued flexibility and waivers, especially in contract extensions. One participant suggested a vendor database to help them find products, "we found that we were able to turn to alternative companies that we would have never thought of purchasing from."

Food and Supply Costs. Food and supply cost resource solutions centered around forecasting costs, bid and renewal flexibility, cash in lieu of commodities, higher reimbursement rates, and procurement changes (Appendix D-5). Underlying these suggested solutions was the challenge of cost uncertainty, such as doubt that distributors will renew at the current price and how districts will make costs work without a higher reimbursement rate. One participant suggested the most comprehensive solution: "The only thing would be if the USDA would rewrite all their rules for how you do procurement."

Food Supply. Regarding resources needed for the food supply itself, PCs were succinct in their responses. For example, one participant stated, "Why don't you help us find food somewhere?" while another said, "Labor, so they can deliver." The idea of a database of vendors emerged again, focusing on manufacturers, so PCs could look at what they are offering. Waivers and revised procurement reviews also were suggested when participants discussed resources needed.

Labor Shortage. Participants thought the labor shortage could benefit from resources that helped develop a hiring pipeline and pay competitive wages. One participant commented on the state of their hiring pool, "We're hiring people we would have never even talked to two years ago." In addition, signing bonuses and increased salaries were mentioned by participants as part of the competitive wage package that would help the labor shortage.

Training. The need for training resources was two-fold. First, participants wanted standardized training to customize, and then secondly, they wanted finished training materials on forecasting.

Other Resources. Only one participant suggested another resource needed, which did not fall into the topical categories. That participant said a communication template that could be customized to explain supply chain issues to parents and the administration would be helpful.

Technical Assistance Needs

Procurement. Creating a national buying group was suggested by participants as support for procurement issues (Appendix D-6). One participant said it would be a "huge resource" for them, and another participant recounted how helpful a previous experience in a support group had been for them. In addition, procurement templates were suggested by one participant as a valuable resource to avoid "reinventing the wheel." Lastly, one participant said they did not have time for technical assistance as they were "just doing the best they can to get by each day."

Food and Supply Costs. Only one participant had a suggestion for food and supply costs technical assistance. That participant proposed a recipe/food database, which was already in use by another state, giving the user multiple ways of using a particular food item.

Food Supply. Food supply technical assistance suggestions focused on the topics of communication assistance, supply chain training, and support group creation (Appendix D-7). Participants' desired communication assistance was about how and what to communicate with their stakeholders (e.g., parents, administration) and ways to communicate with brokers and distributors to understand the forecast better. Concerning supply chain training, one participant noted that "directors don't understand the whole, it's a business thing" and "want to quickly blame the distributor" without realizing the impact on the manufacturer. Finally, one participant gave the example of a support group that has worked well. The group is an open invitation where anyone in the state can join, talk in small groups, and learn best practices.

Labor Shortage. Only one participant had a technical assistance suggestion for the labor shortage. This participant suggested teaming up with temp agencies that had the expertise they did not have to recruit staff.

Training Preferences

Format. Face-to-face trainings/workshops and webinars were ranked the most useful training format for school districts by PC participants. Interactive virtual trainings, printed self-guides, digital resources such as video trainings, and self-paced online courses were all ranked subsequently in terms of usefulness.

Length. Three participants ranked length of training determined by the topic as the most useful, with 30 minutes and one hour in the top three preferred training lengths. One participant responded with an additional comment stating that generally, the training they attended was either 30 minutes to one hour or all day.

Topic

Importance for District-Level Staff. The PC participants rated the importance of training topics for school district staff. Procurement and interpreting USDA waivers were the topics deemed very or extremely important by the highest number of PC participants. Other topics rated very or extremely important by four or five participants were menu planning and emergency crisis plans. School meal component training for non-SN staff and farm-to-school trainings were rated lowest. None of the respondents had additional comments on the importance of training topics for district-level staff.

Important Topics for Site-Level Staff. The PC participants rated the importance of training topics for site-level staff. Procurement forecasting training was rated as very or extremely important by all PC participants. Five participants rated food production, inventory management, and receiving food and supplies as very or extremely important for site-level staff needs. Buy American and computer skills were topics that were rated as only slightly important. None of the participants provided any additional comments on training topics for site-level needs.

Additional Information/Recommendations

At the end of the focus groups, participants were invited to share any additional information about their experiences in meeting the challenges of the SY 2021–2022 and any recommendations they may have. All comments provided by Purchasing consortium participants are provided in Appendix D-8.

Industry

Strategies Implemented

Products and Services. Industry participants used a variety of strategies to ensure SNPs received products and services. Proactive strategies for industry participants included increased planning and preparation regarding alternatives, stockpiling, trying to forecast, being aware of their inventory, and adjusting their internal operations. Their relationships with districts focused on communicating with schools, meeting their basic needs, and allocating products as needed. Outside-the-box thinking and flexibility were key strategies to streamline production and get products to districts. Appendix E-1 provides sample participant comments with regard to the aforementioned strategies.

Well-Being. Industry participants also reported supporting SNP customers who were anxious and frustrated by being proactive with communication and problem solving, showing empathy, listening, being creative, and remaining positive even during tough conversations. Some of the reported strategies for supporting SNPs are listed below.

- "It goes beyond empathy—letting them know of other opportunities with other companies that may help or suggesting another format for their supply." (manufacturer)
- "Proactive correspondence about the issues that they will be seeing and that are continuing with supply chain, labor, etc." (distributor)
- "A lot of manufacturers created more convenient items." (broker)
- "I feel like we are part-time therapists. Sometimes where you pick up the phone, you know, it is nice to hear from the directors and listen to their pain points." (distributor)

As service providers, industry participants also experienced increased anxiety and frustration. While they mentioned the emotional fatigue and stress they experienced, their responses also reflected positive outcomes. Staying optimistic, seeing the benefits of being put under pressure (e.g., made us scrappy), utilizing prior team-development training, and sending out/receiving care packages, were positive things that came out of the increased anxiety and frustration.

Key Challenges

Industry participants identified many key challenges, from the supply chain to their inability to innovate (Appendix E-2). Procurement challenges included bids and contracts, inventory, purchasing, and turnaround time. Discussion around the labor and staffing issues focused on how their production and distribution processes are constrained by lack of staff and losing staff knowledgeable of the K–12 industry. Participants mentioned transportation in terms of its widespread impact ("an absolute nightmare") on their ability to service customers, increased freight costs, and issues with their internal drivers. While participants did articulate specific challenges, one concept that emerged was the impact of the unknown and, therefore, being unable to forecast and plan. School nutrition program issues experienced by participants included SNP operators not being flexible, not communicating well either verbally or within their written bids, and not understanding how the pandemic has impacted the industry.

Future Implications

When asked about their perspectives on how the cost would impact their relationship with SNPs, participants commented that the future might hold decreased or no business with K–12. A conversation arose about the need to reshape the procurement process (e.g., fixed costs and fixed-priced bids) and run SN like a business. One participant stated, "I think we need to get to a point where schools are running it like a business. A lot of distributors have walked away from smaller accounts, not because they're not good people, distributors, or the account; it's because "it's not good business." However, a few participants discussed how the pandemic might strengthen the K–12 community. Also, one participant suggested that "if there is a perception of value in the eyes of the parents and students, the cost may not matter."

In addition to costs, other issues were identified by participants that affect SNP business relationships. Participants again talked about procurement issues, including turning down accounts, being margin-focused, the possibility of not contracting with K–12, and needed changes. Lack of change was another threat to the SNP business relationship and upcoming restrictions or requirements. Sample comments are listed below.

- "Right now, we're very margin-focused. I used to be able to bring an opportunity with large volume forward and be able to get a really good price on it. In the current atmosphere ... we are barely, you know, able to support basic business, so incremental large opportunities aren't being discussed ... there's going to be some difficult customer conversations happening in this next bid season." (manufacturer)
- "We are literally turning down a national account business that buys 5 and 6,000,000 pounds of product a year. Turning it down because we need that volume in our facilities to support our other normal chains of businesses that we've been in for years and years. That may be true today for national accounts, but that can also flip around and be true for a very, very large school district that has a very, very specialized product that hasn't been in school for two years but demands everything under the sun ... many of us are walking away from their business ... nobody wants to supply the money." (manufacturer)
- "What we are going to see is school districts believing that they are going to modify their procurement criteria to manage us. They're going to say things like you will not

have price increases, you know you have to do it this way, you cannot sub." They're going to get more rigid in what they're expecting to try and prevent something like this from happening versus really beginning to understand what makes us better business partners and why things are happening now and what they can do to solve the problem in the future." (distributor)

- "I think the whole solicitation process needs some improvement going forward." (distributor)
- "They have to be careful because if they don't have flexibility in that bid for their distributors, they're not going to get distributors that are going to bid on that bid. And so that could even create more of a challenge for them, and so that's just something they need to be aware of." (manufacturer)
- "We're already putting together 23–24 products, so I guess as soon as January, we're going to need to have those low sodium items that meet new requirements. I don't know how many of our vendors are going to go there." (broker)

When asked if the changes were here to stay, participants answered yes and provided specific changes they believed would stay (Appendix E-3). The reduction and simplification of SKU, virtual communication, higher reimbursement rates, shortened sales process, and increased pricing are some examples of the changes they mentioned.

Recommendations for School Nutrition Programs

Controlling Cost. Industry participants' ideas for how SNPs can control costs varied widely. Forecasting was noted as an opportunity in addition to strategies such as streamlining procedures, improving efficiency, being flexible, and using alternatives. One participant called forecasting "probably the biggest opportunity." Communicating better and revising bids to be more realistic were also identified as ways to work with industry partners to control costs. All comments are presented in Appendix E-4.

Communication. When asked about the best communication methods being used by SNPs, participants did not offer many responses. However, they did identify giving advance notice and direct communication as the best way to communicate with them to get the best results. Recommendations about improving communication focused on needing more information from districts, and utilizing virtual meetings to bring together chefs, manufacturers, and SNP operators to get creative and proactive communication as much as possible.

In addition, industry participants identified the SNA, USDA, and states' Departments of Education as critical organizations that need to support industry and SNPs to improve all stakeholders' situations. Sample comments regarding that top-down approach are below.

- "With the help of SNA, we could get the federal government to help our schools to adjust to these price increases down the road ... hopefully, we can get the federal government to keep up with what the schools need." (manufacturer)
- "I think Washington's going to have to react to it based on the situation. Because let's face it, the kids that are leaving the program are the kids that are paying ... but the kids who are typically paying are going outside campus, or they're going to the places

where they already go, and they're not going to come back if they think this is what we feed them." (broker)

- "I think support out of Washington is going to have to increase to get to where it needs to be." (broker)
- "The other thing that's really causing them strife right now is that they're concerned about administrative reviews and the fact that if they don't have all the components on the tray that they're going to get their reimbursement lifted ... if they're going to try and take reimbursement away, I mean I'd fight it." (distributor)
- "Over the last couple of years, because of the way the state Department of Education has kind of leaned on compliance in terms of how the bids are processed, what kind of paperwork, they have pretty much caused a lot of people to retire. Because they were afraid of what's coming ... there's a lot of things I think could actually start at the state level to give more flexibility to those individual systems, so they don't have much fear." (distributor)
- "I just think that the USDA really needs to be very flexible, especially this year and maybe for the next two years, until things get back to where they should be ... how can I think outside of the box and still meet my nutritional needs if your distributor doesn't have what you need at the moment to fit [and] meet your nutritional needs. So, that's my biggest thing that the USDA really needs to take a hard look at that." (distributor)

Training. Recommendations about training highlighted industry perception that directors do not fully understand the supply chain, forecasting, and bids/requests for proposals. Industry participants' recommended trainings for SNPs are provided in Appendix E-5.

Silver Linings

Throughout the conversations, participants identified silver linings that have come out of the pandemic situation. Sample comments from their responses are below.

- "On the good side, I will say that we did come out with innovative products because of COVID-19 and are continuing to do that." (manufacturer)
- "We wanted to get all of our point of sale and all of our cooking instructions and everything done in English in Spanish. I could never get that done because we didn't have the time to do that. We were able to do that for about 212 or 213 documents and webinars both English and Spanish." (manufacturer)
- "For the elementary kids, they were eating meals in the classroom ... the principal found that the students acted better. It was a better situation for learning when the little ones were fed in the classroom, and he preferred it." (broker)
- "One thing I have noticed through all of this is that the creativity, not just the directors, but some of the manufacturers. People have pulled together in the last 18 months, and I have seen some of the most creative things in 20 years. Such as companies changing a production line ... converted one of their factories to hand sanitizer." (broker)

- "We did good business because they used a lot more produce last year than in years before." (distributor)

DISCUSSION

At the time of data collection (fall 2021), most SNP participants said that they had transitioned from alternative meal service models (e.g., meal delivery to homes, curbside meal pick-up, and grab-and-go) in SY 2020–2021 to more traditional meal service models with minor changes (e.g., serving meals in the classroom and serving meals in the cafeteria with students taking the meals to another on-campus location) in SY 2021–2022. However, despite modifying their meal service models during the pandemic, SNP participants noted that they had experienced significant challenges providing meal delivery and service during fall 2021.

Industry participants discussed how they had transitioned during COVID-19, noting how they had become more proactive in forecasting, improved planning and preparation, stockpiled inventory, and used a variety of strategies (such as product allocation) to ensure that SNPs received products and services. While SFA participants identified an increased sense of resiliency, and industry participants commented that the K–12 community had become stronger, both groups spoke about the uncertainty of the future and the need to keep improving the SNP-industry relationship. In most cases, each group identified solutions and resources that they would need to continue operating, although gaps in the data remain.

The data collected in this study revealed that this is a pivotal moment in the SN industry. Although industry participants noted that they worked to provide food and supplies to SFAs during the pandemic, they emphasized that they would likely leave the K–12 market if things did not change. They singled out the K–12 market's low-profit margin, the restrictive, one-sided procurement process, the SNPs' general unfamiliarity with the supply chain and the procurement process, and SNPs' lack of communication and inability to adapt to changing circumstances. For their part, SNP participants noted that, compared to other sectors, they were at a disadvantage in their relationship with industry. For example, while the restaurant sector can increase prices at will, the SN sector cannot, making the SN market less attractive to industry partners. Even if industry partners continue to supply the SN market, industry participants insisted that specific changes, including SKU reduction, high competition for line time, and increased pricing, need to be made permanent.

Policy Changes

All participants discussed the need for systemic changes at the top level (e.g., USDA) regarding policies and requirements. The opinion was widely shared that this situation will likely last beyond June 2022. The SNP participants identified specific changes that would help them to maintain USDA compliance while continuing to meet students' needs: increased USDA Foods or increased entitlement funds; a more flexible distribution process/plan; more waivers (including multi-year procurement waivers); maintenance of the higher reimbursement rate; the ability to move vendor accounts; and changes to the timelines for sweeps of USDA foods. Both SFA and PC participants were especially concerned that they would not remain financially solvent if the higher reimbursement rate were not extended, given increasing food and supply prices.

Labor/Staffing

Every group in this study noted significant challenges in labor and staffing within their segment. For industry participants, supplying products was often a challenge, and even those industry participants that had food products to supply found their delivery capacity limited by driver shortages. For SFAs, even if they did receive food deliveries, they often lacked the staff necessary to prepare and serve it. Moreover, SFAs of all sizes struggled with staffing challenges; they frequently lost staff to quarantine and could not fill open positions. For example, in their supply chain questionnaire report of 1,212 SN directors, the SNA (2021) found that nearly all the respondents (95%) said their programs faced staff shortages. Such shortages were exacerbated by the retirement of existing foodservice directors and the entrance of new, inexperienced foodservice directors.

According to SNP participants, resources, technical assistance, and training should be provided to address staffing issues that extend beyond the immediate shortage caused by COVID-19. The most requested changes were developing a hiring pipeline, recruitment and retention support, and training. A hiring pipeline was specifically singled out as a solution that would create the capacity for a more adaptable response to staffing shortages and build a long-term mechanism for replacing retiring SN directors. Though there are no national data on SN demographics, SNPs' comments suggest that current directors are aging out and that the non-management level staff is also older. Participants recommended filling the hiring pipeline by partnering with temp agencies and promoting SN employment as a viable career choice. Several participants noted that, compared to previous years, there were twice as many open positions that could not be filled. It was pointed out that competitive wages and signing bonuses have helped SFAs attract employees and were recommended as helpful changes to attract and retain staff.

Technical assistance requests from SNP participants included, among other things, conducting a salary review to assess if their wages were competitive with neighboring districts. The SNA's (2020) compensation and benefits report collected wage data for SN positions and provided an overall benchmark. For full-time staff positions, the median annual salaries were \$71,000 for directors, \$56,000 for assistant directors/supervisors, and \$30,000 for central kitchen managers. The typical median wages for full-time hourly staff positions were \$17.50 for managers, \$15.00 for assistant managers, \$12.00 for cashiers, and \$11.50 for dishwashers. Part-time hourly staff had slightly different median typical wages: \$16.80 for managers, \$16.63 for assistant managers, \$12.50 for cashiers, and \$12.00 for dishwashers (SNA, 2020).

School nutrition professional participants' problems and solutions are supported by previous research. DiPietro (2007) surveyed 101 school foodservice managers in Central Florida and found that current SN directors had been attracted by such recruitment incentives as employee benefits, flexible schedules, and competitive pay. The most highly valued incentives were retirement and health benefits. The prospects of better pay, health benefits, and retirement plans were noted as sufficient incentives to leave for another company. Nevertheless, DiPietro (2007) did not address the recruitment and retention factors of non-management staff. A 2020 compensation and benefits report by the SNA found that health insurance and retirement/pension benefits are typically limited to full-time staff. Only half of the districts offered a retirement or pension plan to both full- and part-time staff, while only 27% provided health insurance to both groups (SNA, 2020).

Frequent staff turnover has also impaired the SNPs' ability to serve meals and stay current on training. According to the SNA's (2020) report on compensation and benefits, SN programs face challenges recruiting and retaining non-management-level staff, frequently experiencing particularly high rates of part-time non-management turnover. The SNA (2020) found that less than 20% of the districts reported no turnover for their part-time non-management staff and that one-third reported no turnover for their full-time non-management staff. In contrast, over half of the respondents reported zero turnovers for their management-level staff (SNA, 2020).

In the present study, one large SFA reported shifting "people right and left" after exposure to COVID-19 forced staff members to quarantine. Considering widespread staffing shortages and the inability to fill positions quickly, the benefits and costs of cross-training should be researched further. The ICN (2018) identified implementing a cross-training program as an advanced competency (competencies 1.3 & 1.8) for managers in the functional area of personnel management. However, there has been little research about the benefits of cross-training in SN contexts.

The present study found that labor shortages created numerous gaps in work processes. Participants from large SFAs noted that they would benefit from technical assistance and training to improve kitchen efficiency through automation. Another participant wanted technical assistance to help speed up meal service to meet the demands of increased student participation. One medium SFA noted that their bagging and sealing machine had generated substantial time and space savings. Previous research has shown that unexpected challenges and new regulatory requirements often create gaps in existing systems and processes. For example, the USDA's updated SY 2012–2013 meal standards produced gaps in kitchen equipment compliance, which led SFAs to institute ineffective workarounds (Nutrition Standards in the NSLP AND SBP, 2012). The Kids' Safe and Healthful Foods Project (2013) found that most SFAs had only non-compliant equipment and were forced to use "inadequate, expensive, and unsustainable" workarounds (e.g., manually chopping fruits and vegetables). If SFAs are struggling with inefficient workarounds, it will exacerbate the already onerous burdens produced by the staffing shortage, COVID-19 safety risks, and inconsistent deliveries.

Mental Health and Well-Being

Even the SNPs who had staff available reported that their staff members were often burned out and exhausted. Without healthy, functioning staff, no industry or SN organization can fulfill its responsibilities to its stakeholders. The influence of COVID-19 on mental health should not be underestimated as a critical factor in determining the success or failure of SN operations and any systemic regulatory change. In this study, many participants reported that both staff and customers have been experiencing increased levels of anxiety and frustration. They have sought to support customers' and staff members' well-being through approaches such as wellness and team-building initiatives and personalized approaches (e.g., gifts, encouraging emails, and empathetic listening). Industry participants, though also working long days and experiencing burnout, noted that they have supported their SN customers by engaging in positive communication, helping with problem-solving, and offering technical strategies such as training. While this study's participants intervened in multiple ways to support their staff's mental health and well-being and other stakeholders, they nevertheless requested more training and support

from the USDA, ICN, and SNA. They noted that these organizations could support them by communicating their appreciation, offering explanations to the public about supply chain issues and waivers, and helping SNPs refashion the public image of an SNP from the "old lunch lady" stereotype to one of a trained nutrition professional or a school chef.

The Centers for Disease Control and Prevention (CDC) acknowledges that schools are essential in meeting students' nutritional requirements (Centers for Disease Control and Prevention [CDC], 2021). Nevertheless, their December 2021 summary of recent changes and recommendations does no more than offer strategies for reducing the risk of COVID-19 transmission among school staff, students, and families. It does not address the mental health of SNP personnel. In spring 2020, Patten et al. (2021a) found that SNPs reported being concerned about employee safety, COVID-19 exposure during the emergency feeding response and noted, as well, that they lacked support and resources and were worried about production and distribution handling processes. Finally, respondents reported feeling burned out, frustrated and exhausted, and that they were caught in what was essentially a high-risk, low-reward situation. Approximately a year and a half after Patten et al.'s (2021a) data collection, this study's participants offered similar responses.

There is a lack of research on the non-acute effects of the pandemic on SNPs' staff mental health and well-being. Without support from organizations such as the USDA, ICN, and SNA, SNPs will find themselves hard-pressed to operate their programs and spearhead their SN teams' mental health and wellness initiatives. Moreover, any intervention in SN will likely fall short if the essential mental health and wellness needs of staff are not addressed.

Food and Nutrition Issues

The SNPs said they needed assistance securing a reliable food supply at the most basic level. When products were unavailable from their regular distributors, SNPs sometimes went to local vendors. They noted that they would greatly benefit from technical assistance that would help them identify alternative local vendors, including farmers, along with help with emergency procurement. The PCs said that a vendor database to help them determine which vendors had products available would be particularly useful.

The increased cost of food and supplies has been a particular challenge. Though industry participants noted that SNPs could control costs through forecasting, better communication, and writing more realistic bid requests, SFA participants said they needed help using indexes or formulas to determine and evaluate price increases.

The SFAs discussed how product allocations and substitutions often made it challenging to plan menus to meet nutritional requirements. For example, SFAs often received incorrect products or received the correct products in the wrong quantities. In addition, they noted that menu compliance was challenging when substitutions were not nutritionally the same or did not meet allergy guidelines. As a result, SFAs requested technical assistance in handling substitutions, modifying their menus, dealing with cost increases, and maximizing the use of all available products. Industry participants noted that product flexibility and the freedom to use alternatives would help SFAs control costs. One proposed solution was to develop a recipe or food database. According to one PC participant, this type of database is being used in another

state, and it provides SNPs with a variety of ways to use a particular food item. However, the availability of this type of database is for members only.

On January 7, 2022, the USDA announced additional funding for school meal programs to ensure that federal reimbursement rates "keep pace" with food and operational costs (United States Department of Agriculture, 2022). Ideally, this increased funding, when combined with measures to address the food and nutrition issues noted in this report, would help support schools through the pandemic and supply chain issues.

Communication

The SNPs used various communication methods to engage with non-industry stakeholders, ranging from texting and phone calls to online platforms. The medium chosen by the SNPs appeared to be driven by what both parties had access to and what was easiest to use, and they frequently used multiple communication methods (e.g., phone calls and social media). Though very few participants explicitly discussed how effective their communication methods were, several mentioned having information on-demand for stakeholders and that their emails were often ignored. The prevailing opinion was that they knew their audiences well and chose the best communication medium for them. However, they also requested technical assistance (e.g., communication templates) for communicating with stakeholders about the food supply, the resulting problems, and waivers. Many SNPs expressed concerns that, especially with increased student participation, stakeholder satisfaction and value perception would be adversely affected by frequent menu changes and delays in offering accurate responses to questions about changing requirements.

There seemed to be a gap in SNP-industry communications. When asked about the best communication methods that the SNPs used, industry participants offered few meaningful responses. However, they noted that direct communication and advance notice generally helped them produce the best results, especially in controlling costs. SNPs also acknowledged this gap and requested technical assistance to help them communicate more effectively with brokers and distributors and better understand forecasting. Both industry partners and SNPs recognized that better communication would help create better outcomes for everyone by improving their understanding of each party's positions and decisions. Therefore, this gap needs to be recognized and addressed by the USDA and SFAs to improve the industry/SFA relationship. Improvements should include the forecasting of bid quantities, longer lead times, better communication, menu/product flexibility, reduced SKUs, and reduced bid periods (two times per year, as opposed to annual or multi-year contracts).

Emergency Preparedness Plans

The status of emergency preparedness procedures and plans varied among the participants, but, notably, no group had a workable or comprehensively revised plan to address the impact of COVID-19. Instead, they talked about *ad hoc* adjustments (e.g., adding staff, modifying processes or systems, or upgrading manual systems) that they implemented as the need arose. No group had conducted a comprehensive audit of their existing plan and made revisions based on the findings. Some participants said they were still collecting and evaluating data, while others were wholly occupied with dealing with the current crisis and had not

formulated any new plans. Some participants noted that they would like to be more closely involved in the statewide emergency planning process moving forward.

Prolonged and qualitatively unique, the pandemic has been a crisis that likely would have been accounted for by few existing emergency preparedness plans. Patten et al. (2021a) found that in early 2020 less than one-fourth of SNP respondents were even aware of an emergency plan. Moreover, even among the respondents aware of an emergency plan, there were substantially different views about its effectiveness. Currently, emergency preparedness is not a professional requirement for SNPs, which may explain why there appears not to have been a focus on emergency planning in the SN environment.

Resources are available to help SNPs evaluate and update their emergency preparedness plans. For example, ICN offers a training workbook with a set of diagnostic materials, including a matrix to help SNPs find gaps in their plans, a presentation, and an instructor's manual (see ICN, n.d. [c], [d], and [e] respectively). In addition, the Federal Emergency Management Agency (FEMA) (n.d.) offers many emergency-preparedness resources. For example, its Organizations Preparing for Emergency Needs website (https://community.fema.gov/PreparednessCommunity/s/open-training?language=en_US) offers planning guides to help organizations create emergency-preparedness plans and partner with local businesses and governments to maintain operational continuity during emergencies.

Patten et al. (2021b) found that SNPs would benefit from administrators' and government officials' emergency feeding resources and guidelines. Future research should seek to understand what is and is not working for SNPs when developing, implementing, evaluating, and revising their emergency preparedness plans and what resources would allow them to do so more effectively. Developing relationships and collaborating with other state emergency professionals will help involve SNPs in statewide planning.

Supply Chain and Procurement

All participants noted that supply chain and procurement issues have been one of the biggest back-to-school challenges and that these continue to be an ongoing operational concern. They requested training and technical assistance to help them address issues across nearly every phase of the procurement lifecycle: writing specifications, vendor identification and selection, contracting, service delivery and performance monitoring, and renewal/contract closure. In an SNA study, industry partners identified many issues that were also noted by industry participants in this study, including poorly written bid documents, unreasonable service requests, specifications that were either too general or too detailed, the lack of quality forecasting, failures to consider lead time, a lack of collective purchasing among districts, SKUs that were specific only to SN environments, and lack of understanding of how to be a quality procurement partner. The SNA also identified several educational initiatives to address these issues; for instance, vendors might be persuaded not to exit the SN market if SNPs developed a partnership mindset. In this study, industry participants also spoke of the need to collaborate more closely with SNPs to help ensure future partnerships.

Most industry and SNP participants noted the need for procurement training. According to industry participants, such training would improve the SNPs' ability to understand supply

chains, pricing models, requests for proposals, and invitations for bids and show them how to adapt more effectively to changing circumstances. The SNA found that all parties would benefit from more knowledge about the procurement process, noting that SFAs are generally unfamiliar with federal program-specific rules and lack the time necessary to understand their scope and complexity. The report recommended improving access to educational resources and professional development opportunities via procurement law and federal procurement requirements—recommendations echoed by SNP participants in this study. The SNA noted gaps that could also be addressed in future procurement training. For example, the study found that SNPs are generally unaware of the five approved procurement methodologies and often use strategies to avoid more formal processes (e.g., split bids). In addition, SFAs often do not announce which vendor won their solicitation, which decreases transparency. Additional problems identified by the SNA included ordering items that will likely not be used, having existing inventory, and failing to honor contracts.

The SNA cites examples of resources and trainings that it and SAs provide. Still, it notes that the lack of a centralized location for these tools, the inaccessibility of online trainings and resources for some SNPs, and the lack of time and prioritization for professional development significantly inhibit their potential effectiveness. This study's participants identified the same challenges, which have been compounded by COVID-19. For example, the SNA offers procurement education resources on its website (see SNA, n.d., [b]), and ICN provides up to 38 hours of face-to-face financial management and procurement training (see ICN, n.d. [a]). However, research is needed to discern the extent to which SNPs are aware of existing procurement resources and whether these resources meet their needs. In addition to recommending procurement training, industry participants noted that the integrity of their relationship with SFAs is at stake. They commented that they trust and prefer districts that honor their agreements to purchase the amounts forecasted on the bid documentation and consider districts that do not purchase forecasted amounts as risks.

As numerous industry participants stated, many of the changes that have occurred due to the pandemic are here to stay, and they cannot go back to business as usual. Dekhne et al. (2012) offered a framework for understanding the supply chain and procurement gap that provided more than training and technical assistance solutions; such a framework may help SNs become better aligned with industry partners. According to Dekhne et al. (2013), supply chain and procurement problems are often caused by inadequate integration and collaboration and might be addressed by customers through demand planning, inventory planning, lead-time optimization, product lifecycle management, footprint design, and capacity planning. The industry participants in this study echoed several of these recommendations for improving SN procurement and creating a better foundation for a mutually beneficial partnership that lasts beyond the pandemic.

Training and Technical Assistance

The results from this study on desired training length, format, and topics appear to make it clear what training and technical assistance should be offered to support participants' requests. For example, most SNP participants agreed that the subject should dictate the training length with a preference for 30 minutes or one-hour lengths. In addition, they wanted face-to-face trainings along with webinars, virtual trainings, digital resources, and printed self-guides, which would be helpful, especially with COVID-19 safety concerns. However, the apparent clarity of

these results makes it easy to overlook the overarching challenges that the pandemic presents to training and providing technical assistance to SNPs. According to this study's participants, these overarching challenges include overburdened staff, widespread supply-chain issues, safety and travel concerns, and meal preparation and service delivery time demands.

According to the SNP participants, training programs on procurement processes, financial management, menu planning, emergency crisis plans, and USDA waivers should be provided at both the district and site levels. In addition, trainings on allergens, food safety, food production, and ingredient and menu substitutions should be made available at the site level. Such requests are not new. For example, the Kids' Safe and Healthful Food Project (2015) outlined similar findings. In addition, ICN (2020) found that SA staff would benefit from training on administrative reviews, financial management, program administration, procurement, and training curriculum and development.

It is notable that training programs on these topics already exist. For example, the USDA (n.d.) offers more than 500 training modules on its website; the SNA (n.d. [a]) provides free training to members and low-cost training to non-members through webinars, online training modules, and annual conferences; and the ICN (n.d. [a]) offers face-to-face and virtual group training and more than 80 self-paced online courses (iLearn) on many of the topics that the participants referenced. Without understanding why participants are asking for existing training programs, creating more *ad hoc* training programs is unlikely to address the issue. Future research should audit the available training programs and perform a root-cause analysis to understand why the current training options apparently do not meet the SNPs' needs. For example, are the available training programs not specific enough to address state and district requirements? Do SNP staff know what is available? Are the programs challenging to access and use?

When developing training materials, trainers (whether external or internal) should determine what is readily available and whether these options meet SNPs' needs. If not, training material should be developed that accounts for which topics are most demanded, which formats are most suitable given trainees' access to and competency with specific technologies, and which educational modalities are most compatible with other demands on trainees' time and attention. In addition, trainers should clearly identify how learners will achieve and demonstrate competency and ground what are often abstract and general professional development standards in realistic, hands-on work scenarios.

CONCLUSIONS AND LIMITATIONS

Conclusions

The SNPs in this study navigated the pandemic by modifying meal delivery and service. They served meals while managing labor and staffing challenges, their teams' mental health and well-being, and extensive supply chain issues. Industry participants also encountered difficulties with labor and staffing and supply chain issues, and they used forecasting, improved planning and preparation, inventory stockpiling, and product allocation to ensure that SNPs received products and services. While all participants acknowledged their teams' strength and resiliency, they cautioned that they would struggle to operate under the current circumstances and in their existing relationships for much longer. Participants offered specific solutions (e.g., procurement

training and human resource strategies) that are understandable, reasonable, and implementable. However, they also identified the need for mutually beneficial partnerships and systemic changes that would require a top-down approach (e.g., starting with the USDA). Such an approach is necessary to ensure that students can continue to access nutritious meals that will support their well-being and academic success.

Limitations

Qualitative research is beneficial for policymakers, educators, and advocates because it describes the in-depth lived experiences, settings, and ascribed meaning of a group's experience. Due to the conversational nature of focus groups, participants often offer solutions and identify needed resources that quantitative research may miss. However, qualitative research does have limitations (Marshall & Rossman, 1999). Attempts were made to recruit focus group members representative of each USDA FNS region. However, not all regions were represented in every group, and some participants did not show up due to work demands or having COVID-19. Due to the inherent small, non-random sample, findings cannot be generalized to the larger population. Because participants are known to the researchers and other group members, they may limit or modify their opinions, for example, to appear more socially desirable. Although guided by a coding schema and inter-coder reliability, qualitative data analysis is more interpretative and subjective than technical and objective, which may introduce researcher bias.

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APPENDIX A: FOCUS GROUP QUESTIONS

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1. What was your single biggest back-to-school challenge in providing support to school districts this school year?
2. What do you perceive as the greatest operational challenges for meal delivery and/or service in districts in your state this school year?
3. What are the greatest challenges you face in providing training to SFAs?
4. What are the resources you need to provide effective SFA training?
5. How has the number of professional development training hours been impacted as compared to historical training opportunities?
6. What are the most effective methods of communicating with your staff, and why do you think they are the most effective?
7. What are the most effective methods of communicating with SFAs, and why do you think they are the most effective?
8. After every crisis, it seems there is a push for future preparedness for the next emergency. What new procedures has your State agency developed and/or implemented regarding emergency preparedness plans?
9. Please describe any revisions the State agency has made to emergency preparedness trainings and resources for SFAs.
10. Tell us how you addressed the mental, physical, and emotional fatigue of SA staff.
11. Is there anything you would like to share regarding your overall experiences in meeting the challenges of supporting SFAs in SY 21–22? Do you have any recommendations?

A-2: School Food Authorities (SFA) Focus Group Questions

1. What was your single biggest back-to-school challenge this school year?
2. What are your greatest operational challenges for meal delivery and/or service for your district in this school year?
3. What resources do you need to address the following?
 - a. Procurement
 - b. Food and supply costs
 - c. Food supply
 - d. Labor shortage
 - e. Other resources
4. What technical assistance do you need to address the following?
 - a. Procurement
 - b. Food and supply costs
 - c. Food supply
 - d. Labor shortage
 - e. Other technical assistance
5. What are the greatest challenges you face in providing training to staff?
6. What are the resources you need to provide effective staff training?
7. How has the number of professional development training hours been impacted as compared to historical training opportunities?
8. What are the *most effective methods* of communicating with students/parents, your staff, and other school staff, and *why do you think they are the most effective*?
9. After every crisis, it seems there is a push for future preparedness for the next emergency. What new procedures has your program developed and/or implemented regarding emergency preparedness plans?
10. Tell us how you addressed the mental, physical, and emotional fatigue of staff.
11. Is there anything you would like to share regarding your overall experiences in meeting the challenges of running a child nutrition program in SY 21–22? Do you have any recommendations?

A-3: Purchasing Consortia Focus Group Questions

1. What was your single biggest back-to-school challenge this school year?
2. What are your greatest operational challenges for meal delivery and/or service for your district in this school year?
3. What resources do you need to address the following?
 - a. Procurement
 - b. Food and supply costs
 - c. Food supply
 - d. Labor shortage
 - e. Other resources
4. What technical assistance do you need to address the following?
 - a. Procurement
 - b. Food and supply costs
 - c. Food supply
 - d. Labor shortage
 - e. Other technical assistance
5. What are the greatest challenges you face in providing training to staff?
6. What are the resources you need to provide effective staff training?
7. How has the number of professional development training hours been impacted as compared to historical training opportunities?
8. What are the *most effective methods* of communicating with students/parents, your staff, and other school staff, and *why do you think they are the most effective*?
9. After every crisis, it seems there is a push for future preparedness for the next emergency. What new procedures has your program developed and/or implemented regarding emergency preparedness plans?
10. Tell us how you addressed the mental, physical, and emotional fatigue of staff.
11. Is there anything you would like to share regarding your overall experiences in meeting the challenges of running a child nutrition program in SY 21-22? Do you have any recommendations?

A-4: Industry Focus Group Questions

1. How are you responding to ensure school nutrition programs continue to receive products and services from your company?
2. Tell us how you supported your SN customers who may have had increased levels of anxiety and frustration.
3. Tell us how the increased levels of anxiety and frustration have impacted you as a service provider.
4. What are the key challenges you face as an industry partner in providing products or services to your SN customers (e.g., supply chain issues, labor shortages, packaging, new product requests)?
5. Increased costs have been identified as another key challenge during the pandemic. What strategies would you recommend to SN program operators or purchasing consortiums to help control food and supply costs going forward?
6. How do you anticipate costs will impact your future relationship with school nutrition programs?
7. What are the best communication methods SN programs use to notify you of changes and needed modifications during the pandemic response?
8. What issues will affect your long-term business relationship with SN programs?
9. How are you responding to ensure school nutrition programs continue to receive products and services from your company?

APPENDIX B: STATE AGENCY DIRECTORS AND TECHNICAL TRAINING COMMENTS**B-1**

State Agency Directors' and Technical Staffs' View of Emergency Preparedness Procedures/Plans Developed

After every crisis, it seems there is a push for future preparedness for the next emergency. What new procedures has your State agency developed and/or implemented regarding emergency preparedness plans?		
Code/Category	Group	Sample Comments
New/improved plan	SA Directors	<ul style="list-style-type: none"> • I sent out the ICN plan statewide and to each district that did not have a plan ... and asked them to adopt it now. We have not done any training or anything like that because we're still getting best practices from them with this pandemic that we will be able to implement into it as well. • Let's just make sure everyone has a plan, and we're just going to roll it into some of our existing reporting processes.
	Technical Staff	<ul style="list-style-type: none"> • Now we have more concrete information that we can add to the binder ... That we can be more prepared and it's an ongoing learning experience. • Looking at streamlining processes and ensuring we have the right people included.
Added resources/staff	SA Directors	<ul style="list-style-type: none"> • We had one person that was school security. We now have a staff of three plus a director. • He's going to be building out the trainings ... to go ahead of the requirement for the plan to be submitted • We've had an existing position ... now it's also his responsibility is helping SNA develop their plans.
	Technical Staff	<ul style="list-style-type: none"> • We worked really hard with a few of our consultants and specialists on creating a presentation on what can go wrong in the next 6 to 12 months, what do you foresee happening, the near future, how can you plan to prepare for that: identify your resources, identify the people who can help. But you know where you need to go, and you know can you go ahead and make those connections ahead of time so that when you need it, it's already in place.
No plan in process	SA Directors	<ul style="list-style-type: none"> • We didn't have a plan, and the state hasn't really come up with requiring or asking the district to submit an emergency preparedness [plan].

Still in the midst of dealing with the emergency	SA Directors	<ul style="list-style-type: none"> • I think we are still feeling like we're still heavily involved in this current emergency with what the food shortages and the staffing shortages are.
Continued virtual training	SA Directors	<ul style="list-style-type: none"> • Let us provide you technical assistance on it and couple that with some training ahead of the requirement.
Inclusion of foodservice in state emergency planning	SA Directors	<ul style="list-style-type: none"> • I was just involved in a statewide emergency preparedness meeting the last couple of days where I think in the past I never would have been invited ... I think it will be included in the future in more broad statewide plans.
Electronic systems to replace manual systems	Technical Staff	<ul style="list-style-type: none"> • New sponsor application processes are now electronic. A lot of requests and documentation can be completed electronically versus scanning in and emailing or mailing.
Need state/ICN plan and resources	Technical Staff	<ul style="list-style-type: none"> • During COVID-19, I felt like USDA didn't have enough information, so we were just looking everywhere for how to give the guidance on food safety ... I'm hoping ICN could have some emergency plan curriculum or something that a State agency could follow so we would all have to do it.

B-2*State Agency Directors' Greatest Operational Challenge for Meal Delivery/Service*

Code/Category	Sample Comments
Communication	<ul style="list-style-type: none"> • I would say messaging to the general public. I don't know how many times in this last year I've tried to explain to non-school foodservice folks ... they're just like, "tell me are the kids getting meals, and do they have to pay for them" ... there's just all these nuances. • In the last two years, I've had to try to explain those hundred-plus waivers and programs, and it's just that alone has been very difficult. • These schools need an answer today. They don't need it in six weeks. • Summer, we're ramping back to normal, and we really promoted that. We really shared that, and then it feels like everything kind of blew up at the beginning of September, and then we had to retreat ... that's really hard to message.
Changes	<ul style="list-style-type: none"> • It's just all the changes. It's confusing, saying to the people out in the field. • Sometimes the timing of the USDA waivers and the guidance for the waivers is just. Challenging ... They don't stick to their guns sometimes, and then they change again.
Decision making	<ul style="list-style-type: none"> • At the very beginning of the pandemic, we made decisions to feed kids. • We just decided at the very beginning that we just made common-sense decisions. We just decided whatever happened on the back end, we would deal with that, and you know, I'm very glad we did that because our main goal is to feed kids.
Uncertainty of school schedule	<ul style="list-style-type: none"> • One of the biggest obstacles or challenges is the uncertainty of knowing if they're in school or out of school.
Logistics of meals	<ul style="list-style-type: none"> • But the school is how do I feed the kids, how do I feed the students, how do we offer the meals, you know that's probably the biggest one.
Supply chain issues	<ul style="list-style-type: none"> • Making sure they have product.

B-3*State Agency Technical Staff's Greatest Operational Challenge for Meal Delivery/Service*

Code/Category	Sample Comments
Labor shortages	<ul style="list-style-type: none"> • I asked our entire school foodservice team to respond to these questions as well ... and every single one said the exact same thing, the labor shortage.
Supply chain issues	<ul style="list-style-type: none"> • Just being able to get the supplies and the food that we need from our vendors has been extremely challenging.
Logistics of meals	<ul style="list-style-type: none"> • Even when they do have some food, they're not able to provide the meals appropriately.
Different types of schools/communities	<ul style="list-style-type: none"> • We have religious schools, the Hasidic communities, and they do things a lot differently than public schools, so that was a challenge for us.
Increased participation	<ul style="list-style-type: none"> • Increased participation has impacted the programs.
Paperwork/documentation issues	<ul style="list-style-type: none"> • They're just not able to do the paperwork and the documentation needed.
Perception of the program	<ul style="list-style-type: none"> • Worried about the long-term reputation of their programs because of food shortages.
Price increases of food/supplies	<ul style="list-style-type: none"> • In addition to the food shortages, the price increases as well, so they're experiencing those as well, and even with the higher reimbursement, there's still some struggle and difficulty with that.
Product substitutions	—
Stress on staff	<ul style="list-style-type: none"> • We're seeing increased stress levels in directors.

Note: — No descriptive comments available, e. g., only yes/no answers reflecting the topic title.

B-4*State Agency Director's and Technical Staff's Greatest Challenges Faced in Providing Training to SFAs*

What are the greatest challenges you face in providing training to SFAs?		
Code/Category	Group	Sample Comments
Achieving/Determining Competency	SA Directors	—
	Technical Staff	<ul style="list-style-type: none"> • Just thinking about the application piece of it... we're starting to do reviews and starting to see that there's still probably some gaps in some areas where people are not fully understanding how to operate successfully. • While we have good attendance in our virtual sessions ... the best we can communicate with so many changes that have happened when we go out on review, what we're finding is real challenges and understanding. For example, none of those basic points have changed ... we've seen real fundamental errors basically in the operations of the program.
Staff turnover	SA Directors	<ul style="list-style-type: none"> • With a heavy turnover rate, it's really hard to keep staff training up to date. • We have limited staff time, we've had a lot of turnover, too.
	Technical Staff	—
Keeping attention virtually/interactive challenges	SA Directors	<ul style="list-style-type: none"> • You lose so much with virtual training; you just don't see the facial expressions; you don't see the body language. • It's hard to entertain and lecture on a virtual until you get a style down that works ... sitting in a meeting and have them read to me just drives me like nails on a chalkboard. • We ended up doing a real virtual training, and that was difficult for staff for us because they're not used to virtual training.
	Technical Staff	<ul style="list-style-type: none"> • We're doing everything via Zoom but learning. I think one of our biggest challenges is keeping their attention. Keep it interactive enough to where participants don't just fade away. • We're using a lot more in the virtual methodology to present information. So number one, we're able to record, so that's nice, but whether people are going back to read or listen to those recordings is a great question.
Lack of time for intended audience	SA Directors	<ul style="list-style-type: none"> • We don't have time for trainings.
	Technical Staff	<ul style="list-style-type: none"> • Time is a massive challenge.

	Staff	<ul style="list-style-type: none"> • They don't have the time factor to go back and listen, and if they miss that training, probably they're not going back and listening to their training because they just don't have the time.
Too slow to get training in place	SA Directors	<ul style="list-style-type: none"> • If I was to put the effort right now into addressing the current situation by the time you put the training together and got it out to us like we're all going to be passed that. We're going to have to deal with the here and now.
Reaching everyone	Technical Staff	<ul style="list-style-type: none"> • I think the biggest challenge in the [state] it's just reaching all the schools.
Finding appropriate training materials	Technical Staff	<ul style="list-style-type: none"> • Determining what the best method would be to reach them, there's such a wide variety available.
Limited/no technology knowledge of the receiver	Technical Staff	<ul style="list-style-type: none"> • There's just a wide variety of tech-savvy and electronic savvy across the state.
General technology challenges	Technical Staff	—
Safety/travel concerns	Technical Staff	—

Note: — No descriptive comments available, e. g., only yes/no answers reflecting the topic title.

B-5*State Agency Directors' Additional Information and Recommendations*

Code/Category	Sample Comments
Increased visibility	<ul style="list-style-type: none"> • School meals are so much more in the news, on people's minds. I think we gained so much visibility. • Definitely, a blessing and a curse with the visibility, but we do appreciate people recognizing the work of the SFAs and what they did and evaluate them as first responders because they were certainly that.
SAs' networking/sharing with one another	<ul style="list-style-type: none"> • We are super small, and we really depend on other states and the great things that they've done, and that just helps because we don't have the infrastructure to create a lot of stuff ourselves. • We share resources. We have strengths that they don't have, so I thought that was really useful, as well as sharing documents; it's just sharing the speakers. I've actually sent staff to one in New Hampshire for a couple of days just to shadow to learn.
Continue supporting/building relationships	<ul style="list-style-type: none"> • I think the absolute key to the success we've had in communication in the work is that we have the relationships already established with the foodservice directors and the business managers prior to the pandemic, and that made it so much easier. • The gap year where we didn't do reviews, I believe our relationships grew stronger with school districts. They truly understood that we were there to support them, not just to review them, and you know, discover what they were doing wrong, but we really messaged that we were here beside you; we are supporting you, elevating their concerns to others.
Balancing needs and interests	<ul style="list-style-type: none"> • The overall experience for us has just been a tightrope walking, trying to figure out a way to do what's in the best interest of the SFAs and also try to stay in compliance with the USDA. At the same time, it's been a very challenging year to be able to try to meet both ends of that spectrum.
Need standardized info sheets	<ul style="list-style-type: none"> • A fact sheet • A parent newsletter
USDA should listen/take recommendations	<ul style="list-style-type: none"> • We hope that USDA is reflective on that, and they'll take some recommendations from us on how to do this work more effectively and easier in the future if it should need to happen again.

B-6*State Agency Technical Staff's Additional Information and Recommendations*

Is there anything you would like to share regarding your overall experiences and meeting the challenges of supporting SFAs in SY 2021–2022? Do you have any recommendations?	
Code/Category	Sample Comments
Fear of/uncertainty about the future	<ul style="list-style-type: none"> District state agencies, everyone dealing with the current realities, but there is a fear of what the future holds.
Need better communication with the community	<ul style="list-style-type: none"> It would be nice to have federal support for federal systems and ... letters for schools to send a community regarding free meals for students only, not the entire community. This has put SN staff in uncomfortable situations.
Allergies and special diets	<ul style="list-style-type: none"> There's been an uptick of nurses giving the incorrect insulin dosages because the carb counts aren't right ... I am struggling with what to message to schools ... what tips to give them I'm really nervous that this could be any one of us that has a school in this situation that your modifications are presenting to be a huge challenge [with allergies and special diets] with supply chain shortages.
Continue supporting/building relationships	<ul style="list-style-type: none"> I think one of the things that's going to be crucial for us is just keeping abreast of the operational issues that are going on ... keeping a check-in with the sponsors.
Resource management training	<ul style="list-style-type: none"> I am in desperate need of resource management training.
Universal meal program	<ul style="list-style-type: none"> The use of waivers causes a lot of concerns and issues that could just be avoided by a universal meal program.

APPENDIX C: SCHOOL FOOD AUTHORITIES**C-1***Small, Medium, and Large SFAs' Emergency Preparedness Procedures/Plans Developed*

After every crisis, it seems there is a push for future preparedness for the next emergency. What new procedures has your State agency developed and/or implemented regarding emergency preparedness plans?		
Code/Category	SFA Size	Sample Comments
New/Improved Plan	Large	<ul style="list-style-type: none"> • We had an emergency preparedness plan before but keeping a higher level of grab-and-go items at each of our high schools that we can prepare for meal kits at a moment's notice. • We actually created an emergency prepared this plan before COVID-19 and implemented it because we've never really done curbside meal pickup, and you know those kinds of things. We actually got a plan in place for our staff to implement ... so that's something we can use in the future.
New systems/processes	Small	<ul style="list-style-type: none"> • We know how to mass distribute food five days at a time, what to order, how to prepare. • At the beginning, we were sending out meals daily, and then we moved into weekly.
	Medium	<ul style="list-style-type: none"> • We set up different protocols ... we now have the remind call system. • I think that it was really important for us to update our communication tools within our own department. • The bagging and sealing systems, and that's just been a lifesaver. We use them every day now ... that's been a real time-saver, space saver.
Gathering/evaluating data/info	Small	<ul style="list-style-type: none"> • I actually had people come to me at the end of the summer and say, oh can we do this way again next summer. • Our participation went down, and then when we went back to daily, the participation went back up, so I think a lot of kids prefer getting a fresh meal daily. That was one thing that I noticed.
	Medium	<ul style="list-style-type: none"> • We're bringing in additional products, but we did learn through how we were servicing those contractors.
Electronic systems to	Small	<ul style="list-style-type: none"> • I think having a program ready for an emergency situation if they needed to order meals and it downloaded into a spreadsheet having that available and ready is

replace manual		important.
New Equipment	Medium	<ul style="list-style-type: none"> • I've looked at getting bagging systems ... I never pursued that ... when COVID-19 was here, and we were having two meals for a week at a time, we learned really fast about the volume, so we finally broke down and bought those bagging and sealing systems.

C-2

Small, Medium, and Large SFAs' Biggest Back-to-School Challenge

What was your single biggest back-to-school challenge this school year?		
Code/Category	SFA Size	Sample Comments
Changes/adjustments	Small	<ul style="list-style-type: none"> • After coming back to school, there was quite a bit of adjusting from when we came back in person to all of the guidelines ... then we went to remote because we had an outbreak, and now we're in person again. It's kind of back and forth. It's not like one steady thing. • This year is coming back in and transitioning to a more normal service model in the lunch room. At the same time, still knowing we could have to take a step back.
Emotional/mental toll on staff	Small	<ul style="list-style-type: none"> • There are so many, but I think the one that immediately thought of for me was keeping staff morale up. The last 18 months before we started this year were really, really hard on our staff. They never got a break for all of that time, including vacations and holidays. Coming back into this year, they were tired and, to some extent feeling this sort of ebb of respect. We had been sort of heroes for a long time, and that went away really quickly.
Social distancing/masks	Small	<ul style="list-style-type: none"> • Our biggest challenge was coming back with the social distance last year and the masks.
	Large	<ul style="list-style-type: none"> • Our biggest issue was actually the requirement for all kids to eat all meals outside, physically distant.
Staffing issues	Small	<ul style="list-style-type: none"> • Our biggest challenge has been keeping people at work between having to quarantine or having to stay home with a child or not needing to work because they were getting enough government assistance that they could go home.
	Medium	<ul style="list-style-type: none"> • Our single biggest challenge coming back to school is staffing. The faucet dried up during COVID-19 as far as applications ... I'm now down to one substitute on my list. I have a full-time opening with full benefits and zero applications that's never happened before. • My biggest challenge is like others have already mentioned, but it was definitely staffing. I had the food angle that was taken care of, but I just didn't have the staff ... the people I thought I had to work were in quarantine, and their children were in

		quarantine.
	Large	<ul style="list-style-type: none"> • Our most challenging issue is staffing and then having to re-staff. Full kitchens when COVID-19 ran through the kitchen, so we were shifting people left and right. We didn't know who was where, but we did the best we could. • Our biggest single challenge, like everyone else, was staffing. We started out with a normal year of 70 and were up to about 140 open positions. • The single biggest challenge back to school for us was staffing. We normally have 40 vacancies at the start of the school year. We entered this school year with 97 vacancies.
Supply Chain Issues	Medium	<ul style="list-style-type: none"> • I also have severe ordering issues ... we started ordering our food from [distributor] here and [state] in July for our opening in the middle of August. I still haven't gotten a complete order from them. I'm to the point where I don't have sporks for the kids. I didn't have plates, so we were taking our salad containers and cutting them in half and using those for lunch, and we were putting breakfast and supper and our to-go bags. • So now I'm really struggling with outages. Our distributor has shorted us on so many things. It's at the point that I've told my managers to pull out those old yeast roll recipes and those biscuit recipes because you will be scratching from here on out.
Decreased Revenue	Medium	<ul style="list-style-type: none"> • Suddenly Multiple districts are way down to the penny.
Delivery issues	Medium	<ul style="list-style-type: none"> • My biggest challenge was two days before opening, our prime vendor said, oh, we don't have enough drivers to deliver.
Menu Compliance	Medium	<ul style="list-style-type: none"> • So the biggest challenge is that you're trying to comply ... you have to go in and look for the factsheet ... it's whole grain, and we have waivers. It's just a lot of time-consuming process.
Procurement	Medium	<ul style="list-style-type: none"> • I think we're all facing the same challenges: staffing and procurement.

C-3

Small, Medium, and Large SFAs' Greatest Operational Challenge for Meal Delivery/Service

What are your greatest operational challenges for meal delivery and/or service for your district in this school year?		
Code/Category	SFA Size	Sample Comments
Supply chain issues	Small	<ul style="list-style-type: none"> • My single thing would probably be having the product, the Styrofoam, the forks, and the utensils to get the food out with. • The biggest challenges of meal deliveries are pretty much the same thing—here's been a shortage of to-go boxes and any paper products. • We do have shortages of milk on food products.
	Medium	<ul style="list-style-type: none"> • It's definitely been a shortage and lack of substitution of products. • Specifically, shortage of disposables.
	Large	<ul style="list-style-type: none"> • Supply chain issues that we're facing, too ... we're still able to get probably 50 to 60% of the products that we want, but the rest we can't get them. • On average, we have about 1700 cases a week that are out of stock, which are not arriving to our distributor in time to make it on our trucks for deliveries. Some weeks we've been shorted as many as over 3000 cases in a given week. We just have not been able to catch up, so to speak, in terms of the supply chain issue. • The basic items that we need to prepare and serve meals with paper supplies and things were just not able to get both ... we were left with what seemed like no options. • The ingredients and supplies that are needed to make the food product we've had to discontinue some of our more popular items due to the manufacturers just limiting their SKUs and in production ... manufacturers just aren't taking on new business, they're not increasing their inventory, they have streamlined their SKUs.
Increased participation	Small	<ul style="list-style-type: none"> • We're all serving in the cafeteria. Since it's free, we have more kids participating.
	Medium	<ul style="list-style-type: none"> • Exploding participation, we're feeding more kids per day than we did five years ago with fewer people.
	Large	<ul style="list-style-type: none"> • Our meal counts going up.

		<ul style="list-style-type: none"> Trying to meet the demand of increased participation with the kids being able to eat free.
Labor shortages	Small	<ul style="list-style-type: none"> Having enough staff to serve when I find this food. I literally have three cafeterias; there was one day I had four employees.
	Medium	<ul style="list-style-type: none"> Staffing.
	Large	<ul style="list-style-type: none"> It's more I need people to get to work, and so absenteeism has been one of our [challenges]. One of the things that make it sort of extra challenging is that in addition to our meal counts going up, our staffing is going down.
Logistics of meals (various service models)	Small	<ul style="list-style-type: none"> The single biggest issue would have to be managing lots of service models in each school. So, some classrooms eating in their classroom, some classrooms being served on the line, some classrooms going outside. Every school having three or four different service models happening.
Communication	Large	<ul style="list-style-type: none"> Communication out to our customers is not what I would like it to be. Somewhere I think there's a bit of a disconnect between the communication from the manufacturer to the distributor to us.
Changes/Adjustments	Medium	<ul style="list-style-type: none"> The staff adjusting to change.
	Large	<ul style="list-style-type: none"> New customers, new families with us, and with it being free for everyone, it's so hard to keep up ... instead of planning our menu out a year in advance, for having to do menu planning every week, if not daily, to accommodate the shifts.
Customer Satisfaction	Large	<ul style="list-style-type: none"> It's all that trickle-down effect that we get that all comes back to unsatisfied customers when at a time when we really want to be showcasing what we can do. That's what has me nervous is just the implication for losing customers, instead of gaining them consistently.
Deliveries	Large	<ul style="list-style-type: none"> Getting the orders on delivery trucks
Price increases of food/supplies	Large	<ul style="list-style-type: none"> The food and the paper costs are going up.
Vendor issues	Large	<ul style="list-style-type: none"> We are having to develop a whole new way of doing business by getting a new grocer because our grocer on the first day of school said December 31st would be our last day.

C-4

Small, Medium, and Large SFAs' Greatest Challenges Faced in Providing Training to Staff

What are the greatest challenges you face in providing training to staff?		
Code/ Category	SFA Size	Sample Comments
Keeping attention virtually/interactive challenges	Small	<ul style="list-style-type: none"> • Are they even paying attention? What are they learning? • When I stick them in front of a computer, I don't feel like they get much from that.
General technology challenges	Small	<ul style="list-style-type: none"> • They don't have access to one [computer].
Finding appropriate training materials	Small	<ul style="list-style-type: none"> • Suggestions of self-care days would be a good resource to have out there that we can pull up because we're too tired. So figuring out how to do those things when we've been online ordering and taking care of trucks ... We need maybe some resources from USDA.
	Medium	<ul style="list-style-type: none"> • Curricula that I can use that is already done. • Training for our managers would be really beneficial as far as teaching that ability to adapt
Lack of time for intended audience	Small	—
	Medium	—
	Large	<ul style="list-style-type: none"> • Our main training challenges this year are due to staffing. We have not been able to take the time to train the staff.
Reaching everyone	Small	<ul style="list-style-type: none"> • Nobody is wanting to get together to have an in-person training.
	Medium	<ul style="list-style-type: none"> • Getting everyone together on the same page for training is incredibly difficult.
	Large	<ul style="list-style-type: none"> • The issue is that we have part-time staff, full-time staff, etc., and in August, we try to get everyone together. Well, we can't get everyone together because of safety mitigation strategies.
Staff exhaustion/tired	Small	<ul style="list-style-type: none"> • We were supposed to have an in-service training last Friday, and I canceled it and gave everyone a self-care packet on the day off ... it was just super important to do that just to acknowledge where they're at. • We've all been having to do trainings online, but in reality, the staff is mentally exhausted and
	Large	

		<p>physically exhausted.</p> <ul style="list-style-type: none"> • I have a group right now doing Civil Rights training that I wonder how much of that they're really getting to hear because they're tired.
Limited/no technology to deliver training	Large	<ul style="list-style-type: none"> • That a major challenge was that my staff did not have the technology in place.
Limited/no technology knowledge of the receiver	Large	<ul style="list-style-type: none"> • Even new hires that I bring in that are out of school, out of college, their computer literacy isn't as high as I thought it would be.
	Small	<ul style="list-style-type: none"> • I have people who are very limited in their ability to use a computer, so they really can't do it on their own, or they don't have access to one if they did have access. Some of them don't even know where the on button is.
Limited/no knowledge on how to deliver virtual training	Large	<ul style="list-style-type: none"> • One of the resources we need for that type of training is training for us ... some type of training that could be for us to create snippets of training that you could post on a manager site.

C-5

Resources Needed by Small, Medium, and Large SFAs—Procurement

What resources do you need to address the following?		
Code/Category	SFA Size	Sample Comments
Reduced paperwork	Small	<ul style="list-style-type: none"> • There's just a lot of paperwork and things that seem like they're unnecessary. • We have to do an enormous amount of paperwork to procure anything outside of our just one bid.
	Medium	<ul style="list-style-type: none"> • In the procurement rules, if something is less than \$10,000, it is a micro-purchase. Now they want us to do a cost analysis and all this stuff. What's the point of being a purchase if you just buy up the street effectively? Cost analysis it's just paralysis of analysis. It's ridiculous. It really is.
	Large	<ul style="list-style-type: none"> • For resources, is there a way to streamline the expectation of paperwork?
Standardized USDA regulation interpretation	Small	<ul style="list-style-type: none"> • USDA might feel that they're clear, but then, depending on how the agency that interpreted for your state, they set their own criteria. • The real issue is the interpretation at the state level, and what USDA intended can get a little rascally sometimes. • My state department is stretched so thin. If we have a universal interpretation ... there could be one 800 number that I call every three weeks for my state interpretation.
Emergency procurement process	Small	<ul style="list-style-type: none"> • Procurement in emergency situations, so allowances to step off the bid, step off contracts to go to your local Kroger, or your local Walmart in emergency situations even though you've not procured with them. • I think USDA giving us the option to do emergency purchasing. I think the intent is to make it easier, but in practice, especially if you're a tiny little district, if you're the cook, director, bottle washer, it's not reasonable.
Prompt USDA response	Small	<ul style="list-style-type: none"> • Sometimes our state department says we have questions we haven't heard back yet; we can't say or communicate that to you ... so everyone is in a holding pattern.
Flexibility and waivers	Small	<ul style="list-style-type: none"> • I'm not able to get the items from the vendors that were awarded the bids ... and you don't have time to go through the bidding process all over again like they

		<p>want you to do ... I think that USDA needs to give us that flexibility until this situation is lifted, and we are back to somewhat of a normal situation.</p> <ul style="list-style-type: none"> • I think everyone has the waivers, which that's helped a lot with just even meeting meal patterns. I don't know if you are having a lot of issues with vendors increasing prices on the product, so as long as we have that flexibility not to get fined ... anything that helps us to pass the review with them. I think that's what would help.
	Large	<ul style="list-style-type: none"> • For procurement, I would say that we need continued flexibility. We need to have the ability to pivot on a dime, and I do mean that literally, where we are able to continue to go out and do micro bidding or micro purchasing as needed. • I would hope that there would be some flexibility or waiver to be able to carry over a bid for one additional year so that way we don't get stuck into higher pricing because people aren't going to know what's going to happen then next year. • If the distributor or manufacturer depending on how people have their bids are willing to extend it for another year within an upcharge, some of them say they would be willing to do that just carry your current contract through without having to go into negotiations on any price increases or delivery or anything like that.
Vendors that can/want to meet demand	Large	<ul style="list-style-type: none"> • We also need manufacturers that are able to meet the demands. • I'm really worried. I was getting few, very few bids from people ... I'm really worried that people are going to step away from the table working with K-12 in general.
Procurement/bid document explanation	Small	<ul style="list-style-type: none"> • I'm aware of a specific document that says you've got to have these points in your bids ... and then the support from USDA for the future after we get through the pandemic on what we have to do.

C-6

Resources Needed by Small, Medium, and Large SFAs—Food Supply

What resources do you need to address the following?		
Code/Category	SFA Size	Sample Comments
Increase USDA foods/greater entitlement	Small	<ul style="list-style-type: none"> • More USDA funds to purchase through USDA. Maybe they could get more food in from wherever they get from, and we wouldn't have as much trouble purchasing this seeing it on our own. • I would want the USDA to help, but in our situation, we are such a small state that we can't get them volume. So, the USDA products that are available to us, regardless of what we order or request, they end up being so limited.
Distribution process/plan	Small	<ul style="list-style-type: none"> • Having a more flexible distribution pattern that can be adjustable by the district would be a marvelous source.
More waivers/multi-year procurement waivers	Small	<ul style="list-style-type: none"> • I think more waivers to make what we have more usable.
Ability to move vendor accounts/process agreements	Medium	<ul style="list-style-type: none"> • Some support in any way that can be provided by USDA. Whether it is reimbursement dollars being converted over from brown box or process items to help with the increased costs.
	Large	<ul style="list-style-type: none"> • [Manufacturers] not supplying the product, so in order for me to use those allotments somehow, we need to work together on that, so we maybe carry over those loads to next year.
USDA sweeps	Medium	<ul style="list-style-type: none"> • I was just going to add the thing with the sweep. Ordinarily, you have a year to use up those pounds from when you receive them. I received some pounds last March, and they swept them in June.
	Large	<ul style="list-style-type: none"> • You didn't give me a chance. The other thing that happened last spring to us, which we were not happy about, was the Department of Education was telling us we could carry over a certain amount of products, and then we submitted what we wanted, and then USDA took all this away from us. • They did a sweep that's really harmful.
Vendors able/willing to meet demand	Large	<ul style="list-style-type: none"> • Very important for the manufacturers to know that we are back. We're back. Our students are back. We have guaranteed customers. And they need to bring the food

		<p>products back to K–12.</p> <ul style="list-style-type: none"> • A lot of manufacturers act surprised when it comes to be the fall time in school start ... this should already be on your schedule and your radar, but a lot of them are not prepared.
Positive/proactive media about SNP	Large	<ul style="list-style-type: none"> • [We have] unusual media issues with parents, thinking we are being derelict in our duty, sometimes without giving them what they need ... we need some backup; we need folks saying hey, you know, OK school nutrition didn't create this. They're having to innovate in and out of a box that's on fire ... what are the things that they can do to help us to bring that to ... communities and help people know what we're doing. • If there's a way to communicate this is going to lead to shortage ... have a public-facing kind of message so people know why you might see it in your retailer, but you won't see it in institutions like child nutrition that comes across in a nice way.
Information on what's available	Large	<ul style="list-style-type: none"> • Knowing what's going to be available, what can be done versus what we wish could be done. And if we knew what was in the [supply] chain, what's the trend. • One of the things that's kind of irritating for me is when a manufacturer comes in and says, here's my flyer. These are the things available. And I say, you mean all of these things available? And they say no, not really. It's only this and this. So I think it's important that manufacturers are very honest with, here's the things that we have to supply.

C-7

Resources Needed by Small, Medium, and Large SFAs—Labor Shortages

What resources do you need to address the following?		
Code/Category	SFA Size	Sample Comments
Competitive pay scales	Small	<ul style="list-style-type: none"> • A higher national minimum wage that was actually livable. • It's our people, custodians, and bus drivers that are the lowest paid in the district.
	Medium	<ul style="list-style-type: none"> • I don't know if it's a state thing or could be a federal thing, but a lot of our staff doesn't make a lot of money if they have a chance to get into both systems, their retirement system as well as social security that would be huge for them. That's a big benefit because that'll keep them there. • I need someone to explain to my superintendent and administration [who are] working on the exact pay scale to increase our scale as teachers and custodians.
Money	Small	—
Recruitment help/ideas	Small	<ul style="list-style-type: none"> • I would love to see promotional material nationwide that touts child nutrition in school jobs, custodial, whatever they are ... they're still good jobs. They're wonderful.
	Large	<ul style="list-style-type: none"> • Maybe a video or some sort of training to let potential candidates and new hires know what to expect. Sort of like a day in the life of school nutrition video that we can show when we are interviewing or in the process of hiring candidates.
Training	Small	<ul style="list-style-type: none"> • As a result of the pandemic, we've had to rely on people other than our school nutrition staff to do things like serving meals, for example. And one of the things that I spent an inordinate amount of time on last year was creating YouTube videos about child nutrition and how to serve meals, and what the rules were about child nutrition and CACFP ... I feel like our resource could be having somebody or some other organization that has more resources and better skills than me making some of those informational videos about what our programs require and how school communities can really support that effort by knowing how to help us serve meals, knowing how to get kids and help kids get through the line, just checking off those forms correctly, so I don't have to spend 400 hours fixing the mistakes that everybody makes.

	Medium	<ul style="list-style-type: none"> • Onboarding resources for onboarding employees so that you have the most opportunity to give them success once they get on the job. • For new employees, we have the training, but I think they need more and trying to get employees trained and understand you were a homemaker and now you're a foodservice worker. It's professional, and they're like, wow, I never understood what it took to do the job. • One of the things that would help me if there was a turnkey solution, bringing people in that have no foodservice experience and no K–12 experience. Have them take this one-hour training or two or however long it has to be where they could learn.
Hiring pipeline	Medium	<ul style="list-style-type: none"> • School nutrition as a viable career path.
Social media templates/ads	Medium	<ul style="list-style-type: none"> • Social media templates that you can put in your own information and post up on your Facebook page or your Twitter Page and Instagram page.
Retention help/ideas	Medium	<ul style="list-style-type: none"> • Our taxes are high. Our gas is high. Our food is high. Everything is high, so people are just really afraid to come back to work here.
State-funded employee advertising/recruiting program	Medium	<ul style="list-style-type: none"> • One thing I saw recently on social media was a picture in Georgia; they did have a billboard talking about school nutrition hiring, and how important your role can be as a school nutrition employee. I thought that was great.
Help with reducing labor needs	Large	<ul style="list-style-type: none"> • I would suggest suggestions and best practices for increasing efficiency in kitchens to reduce the labor needs. • Is there anything going on in the industry to provide more automation on simple things that may not need the human hand or the human touch?

Note: — No descriptive comments available, e. g., only yes/no answers reflecting the topic title.

C-8

Resources Needed for small, medium, and large SFAs to Provide Effective Staff Training

What are the resources you need to provide effective staff training?		
Code/Category	SFA Size	Sample Comments
Helpful existing resources	Small	<ul style="list-style-type: none"> • I do a lot of my own training, but I wish I could go somewhere to get the ideas for it ... grab lesson plans ... for particular topics (small). • Break down some of their great training videos ... I have less than ten employees. They're tired of hearing my voice (small). • I've had to come up with lots of that stuff, and I'm just fresh out of ideas (small).
	Medium	<ul style="list-style-type: none"> • Other availabilities of programs that you could easily download. • And if we had some training so that staff got together and they all logged in and did the training, I think if we had that resource ... we would have some decent training.
	Large	<ul style="list-style-type: none"> • We need training and the resources to be able to create thanks for our staff. • Suggestions of here's products you can use to create snippets, and then here's what you could do to create them ... because we're all so busy because everyone is working in the schools because we're short on labor.
Applicable training materials	Small	<ul style="list-style-type: none"> • Providing some wellness activities or wellness programs specifically for school nutrition staff would not be a bad idea. • Modern wellness groups don't necessarily cater to that age of employee [retirement age], and they're my best employees, so maybe we need to respond to our demographic.
	Medium	<ul style="list-style-type: none"> • What you're talking about [participant] that kind of training would be so valuable in every state period to train people boots on the ground, how to do some of this stuff.
	Large	<ul style="list-style-type: none"> • Small snippet training concepts.
Good/better presenters	Small	<ul style="list-style-type: none"> • I want someone to come do it. Send us the trainers.
	Medium	<ul style="list-style-type: none"> • I was going to add guest speakers. You know it would always be refreshing because I get tired of listening to myself all the time, even if I could just find someone else

		<p>in the district.</p> <ul style="list-style-type: none"> • Also not making it the responsibility of the director or people on staff, so that we can sit back and attend that training with our staff.
Better presentation design/platform	Large	<ul style="list-style-type: none"> • A way to provide an online training platform for staff ... if there were a way for us to easily facilitate or easily put courses online ... that staff can go out and look at their own at a later time and, of course, get that credit at the end.
Standardized/cu stomizable training	Medium	<ul style="list-style-type: none"> • Availability of the trainings that are kind of plug and play to alleviate the administrative tasks on the director • You could easily download and put together a resource for your staff, if that would be great, or manager and divide it out. Obviously, our management team needs additional types of resources that perhaps the general worker substitute would not.
	Large	<ul style="list-style-type: none"> • Resources out there that are available that we could easily create from a template versus us developing our own that would be helpful.
Bi-lingual resources	Medium	<ul style="list-style-type: none"> • The training officer needs to be bilingual ... we just did a foodservice when they said yes, we have a Spanish workbook. The test came, and it was in English, and so, I'm like, well, that's not cool.
Technology training	Large	<ul style="list-style-type: none"> • [Training] tailored around virtual training platforms ... this is a good platform to use if you're just doing a quick little snippet ... this is a better platform for a longer 30-minute training, or this is a better platform for you for different techniques.

C-9

Technical Assistance Needed by Small, Medium, and Large SFAs—Procurement

What technical assistance do you need to address the following?		
Code/Category	SFA Size	Sample Comments
Process/training to attract vendors	Small	<ul style="list-style-type: none"> • Procurement from local farmers ... training that can help streamline procurement from small vendors like our local and help that make a little bit more of a proactive process so that we don't get bogged down in it and feel like it was too much and throw it out. • Some concrete steps that people can take to make a procurement network because there's a lot of vendors out there that people do not even know exist.
Up-to-date/current resources	Small	<ul style="list-style-type: none"> • I like information about what are the rules ... when you're trying to substitute in the lunchroom, and you're trying to make sure the groceries ordered, you're trying to get ready for the review, you're trying to make sure you've got all your supplies in dealing with the emotional problems in your staff. Remind me what the rules are of procurement for this year; a flow chart or a summary sheet to go over the rules.
	Medium	<ul style="list-style-type: none"> • We're trying to do a central database to help with procurement ... so that other districts can help find new resources if they need help finding procurement.
Help district understand SNP procurement	Large	<ul style="list-style-type: none"> • My major hiccup is the district has its own way of doing procurement, and we fall under that umbrella. They do not understand, for instance, the current emergency contract we can enter. So I feel like we are jumping through some unnecessary hoops right at this moment. But to keep everyone going in the same direction, procurement in the district needs to understand procurement and foodservice and the difference.
Boilerplate USDA information for bids	Medium	<ul style="list-style-type: none"> • I have a bidding department, but getting all the additional language now from USDA, Buy American, all that type of thing ... a simple boilerplate could come whether you have a bidding department or not; it's all together. We're even arguing with our state contract or procurement officers. They're like everybody doesn't need that USDA language; why should we put it in the contracts ... I may go back to putting my own out because we've been cited because we did not have all the USDA language in the state

		contract.
Procurement reviews	Large	<ul style="list-style-type: none"> • Just to make sure we're staying on point with procurement reviews and knowing that we're doing even in the midst of a fast-paced changing environment, that it still works, and it's still going to be acceptable and on point

C-10

Technical Assistance Needed by Small and Large SFAs—Food Supply

What technical assistance do you need to address the following?		
Code/Category	SFA Size	Sample Comments
Communication assistance	Small	<ul style="list-style-type: none"> I just feel like communication between vendors and school foodservice directors everywhere [needs assistance].
How to handle substitutions	Small	<ul style="list-style-type: none"> What can I do to figure out how to substitute products when something gets substituted? How do I work with my vendor to determine what is the appropriate substitution? What would be some other options?
How to modify the menu	Small	<ul style="list-style-type: none"> How to tweak my recipes, how to tweak the menu.
How to hold vendors accountable	Small	<ul style="list-style-type: none"> A big challenge it's also hard to hold our vendors accountable.
Supply chain training	small	<ul style="list-style-type: none"> What the supply chain is, where it's backed up, and what can I do to make sure that things get moving again? Is there any advocacy that I can do ... just understanding the supply chain?
How to understand compliance issues	Large	<ul style="list-style-type: none"> So, one is on the Buy American topic ... having consistency and understanding of how frequent we have to have something in writing when we don't have a Buy American compliant item. Because I have seen where state agencies either don't understand or can't provide an answer on how frequently we should be documenting every time we get in bananas for NSLP but not CACFP since it doesn't apply to that program. I see a lot of issues with inconsistency on best by expiration date product utilization. I see a lot of products not being utilized because of different interpretations of that and usage or lack of code and information on their product. So, if we can have better information on that and consistent, it would help us maybe not need as much product.
How to modify the menu	Large	<ul style="list-style-type: none"> When you run into an issue with that, then we have to do all these jumps through these hoops to change the menu so we can use up the product.
How to handle substitutions	Large	<ul style="list-style-type: none"> I would say training for all distributors that are working with K–12 to understand the impact of not

		getting items in and understanding the meal pattern to better be able to make appropriate substitutions.
Training for SNP & vendors to understand each system	Large	<ul style="list-style-type: none"> • We need to come together [with manufacturers], and we need to have some level of training to help people understand the impact of their decisions and our decisions and help us to try to come to a medium that yields better outcomes.

C-11

Small, Medium, and Large SFAs' Additional Information and Recommendations

Is there anything you would like to share regarding your overall experiences in meeting the challenges of running a child nutrition program in SY 2021–2022? Do you have any recommendations?		
Code/Category	SFA Size	Sample Comments
New/strengthened relationships	Small	<ul style="list-style-type: none"> • I just feel like everyone realizes how important our staff is and how much they work ... Even the administration, they were very thankful, and they understood all the hard work that my staff had to work during this pandemic ... the teachers were at home, other staff was at home, well my staff was here, we were at work period, so I see that basically, it's a bit different now. • You start training more and use the administration other people and search for people to do these tasks that you see simply cannot accomplish in a normal day because they weren't normal. There isn't enough energy amongst the employees to get it done, and we found it has drawn people into our foodservice world. I had kids in the kitchen one day helping take care of some stuff, some young men to lift some boxes, and they're like, what a great mixer this is, and it drew some staff in that had no idea what our overall capacity is ... Branching out into the rest of the school has brought them in ... it does give more of a feeling of inclusion.
Continue Free Meals	Medium	<ul style="list-style-type: none"> • The biggest thing that needs to come out of this is free meals for everybody.
Continue Communication and Collaboration	Large	<ul style="list-style-type: none"> • Connect, collaborate, and champion. Can continue to connect with parents, teachers, students, administrators, school board, etc. Collaborate, get in contact with the community, talk to all our agencies, let folks know what you're doing to keep them up to date, what you're dealing with in food securities ... then champion our programs how people now notice good nutrition. • For me, it's communicate, communicate, communicate what's happening, so our people have all the information. I had cooks who were getting mad because they didn't know we couldn't get this in and why they were doing this. Our staff really needs to know what's happening, so they're not upset that the menus changed three times this week; why is this happening?
Increased	Large	<ul style="list-style-type: none"> • We talked about how this whole process has made us stronger and more resilient and knowing what we are now

Resiliency		capable of because we're stronger than we were before.
USDA understanding of the situation	Small	<ul style="list-style-type: none"> • The support from USDA for the future after we get through the pandemic. This is why we have to do what we do.

APPENDIX D: PURCHASING CONSORTIUMS**D-1***Purchasing Consortiums' Interventions for the Well-Being of PC Member Districts*

Code/Category	Sample Comments
Listening/using emotional intelligence	<ul style="list-style-type: none"> • If they ever need to call and shout and scream or cry, you know, on the phone or whatever will listen to them. • We did lots of talking to people on the phone or even going and visiting. They are trying to mentor them through the process ... I would spend hours without them, but nobody has time for us to do that anymore.
Want USDA support	<ul style="list-style-type: none"> • It would certainly be helpful and helping with their mental health that they are appreciated and anything that SNA or USDA can send out to people just keeping it fun for them how appreciative they are, and how everyone knows what a hard job they have this year, these last two years and how they get things going in spite of all the adversity. • Every once in a while, though, run an article on school meals and how the supply chain is impacting us, and that's not just your grocery store. You know, you're missing things at the grocery store, but I'm missing things here. But anything they [USDA] can do to get away from the lunch lady image ...
Wellness	<ul style="list-style-type: none"> • Yesterday we had a conference focused on taking care of ourselves that was nice.
Education (articles, etc.)	<ul style="list-style-type: none"> • I've tried to send things out when I read an article about emotional health, well-being, or stress. I forward those articles on to the members as well.
Recognition	<ul style="list-style-type: none"> • What I tried to do is when one of our member districts posted something very positive on their Facebook page, I tried to share it to the buying group page to show all our members the good things that are happening out there.

D-2*Purchasing Consortiums' Biggest Back-to-School Challenge*

Code/Category	Sample Comments
Contract/bid issues	<ul style="list-style-type: none"> • Our group has had the same distributor since our inception, which was back in 1998. That distributor told us on June 18th that they would no longer be our distributor and gave us 90 days' notice. • We still have the same distributors. However, [large national manufacturer] and [large national manufacturer] and different companies are having to back out of our bid or change the bid or whatever, and so that's kind of challenging for our foodservice people. • We actually had to figure out how to change our pricing mid-year. We do a direct manufacturer price bid as well as doing a distributor bid, so we have had a lot of lockdown pricing that no one can keep anymore. So that's been very difficult to manage all the price changes and get the proper documentation the backup why they were doing the changes. • Our co-op uses two vendors at a time. We take the top two vendors, so two days later had the bid awarded. Then August 3rd, the other company that we re-awarded the bid dropped out, so we had two dropouts within a matter of less than a month, and some of the schools started the very next week.
Procurement	<ul style="list-style-type: none"> • We were scrambling to find suppliers to fill holes. • Our biggest challenge has to do with a [state] law ... which puts additional restrictions. It's stricter than the federal guidelines, so a lot of the emergency procurement rules and all have a little more to them. We've been in contact with our State agency quite a bit just to try to understand what we can and can't do as it relates to emergency procurement because we've had nobody.
Supply chain issues	<ul style="list-style-type: none"> • Trying to keep up with all of the food production, things that have been taken out of production temporarily or permanently, has been another challenge this year.

D-3*Purchasing Consortiums' Greatest Operational Challenge for Meal Delivery/Service*

Code/Category	Sample Comments
Procurement	<ul style="list-style-type: none"> • It's really trying to procure a month in advance so that you can create a menu, so you're not dealing with it every day. • We've had weeks when we didn't get hamburger buns from manufacturers, and school districts were out trying to procure buns locally from local bakeries.
Supply chain issues	<ul style="list-style-type: none"> • Products are not available for the districts. • Ongoing issues with manufacturers on availability deletion to suspension of items.
Labor shortages	<ul style="list-style-type: none"> • We had a school last week, our district last week that had cut 4500 cases off of their distributor order because they didn't have enough trucks and drivers to deliver everything they had ordered. • The truck not being able to go where it needed to go because of the shortage of drivers, shortage of trucks.
Menu compliance	<ul style="list-style-type: none"> • Unfortunately, a lot of items that are substitutes haven't been procured properly and aren't the same nutritionally. • Allergy-wise, so districts are really dealing with that type of issue.
Price increases of food/supplies	<ul style="list-style-type: none"> • It's gone from \$1.27 a case to \$4.50 a case; regardless if you get centralized deliveries or if you get school-to-school deliveries, it's still \$4.50 a case for this year's emergency contract. • No way that school districts can absorb those costs.
Vendor issues	<ul style="list-style-type: none"> • We did have [distributor] cut out to a lot of the districts, if not a lot, most of the districts, but that didn't affect us much, but it did affect our suppliers and our vendors.

D-4*Resources Needed by PCs: Procurement*

Code/Category	Sample Comments
Emergency procurement process	<ul style="list-style-type: none"> • One of the things that would have been extremely helpful, at least to my group, would be some kind of guidance for being able to develop emergency contracts or alternative means of procurement. • We have these standards right now that we're supposed to follow, but with it being in the emergency that we are, will USDA approve? Will our State agency approve what we're having to do?
Flexibility and waivers	<ul style="list-style-type: none"> • We're in the process of maybe trying to see if USDA would allow us to do another one-year extension even though we're at the end of our term. So how can you give and get your pricing, how can you do forecasting, how can you do usage when you don't even know if you have the product tomorrow? • We did ask for those of us that did have emergency contracts that were either getting ready to start if they would in any way, shape, or form consider our renewal process for an emergency contract.
Database of vendors	<ul style="list-style-type: none"> • Maybe some kind of database for companies that may have supplies that we wouldn't normally deal with. Because we found that we were able to turn to alternate companies that we would have never thought of purchasing from. Like paper supply companies that a lot of them might supply to concessions ... we're just really trying to go outside the box and find products.

D-5*Resources Needed by PCs: Food and Supply Costs*

Code/Category	Sample Comments
Ability to predict/forecast costs	<ul style="list-style-type: none"> • I don't think anyone is going to renew. I don't think any distributor is going to renew at the current price.
Bid/renewal flexibility	<ul style="list-style-type: none"> • And our bids are written so that you can renew as long as your cost of delivery doesn't go up ... they're not going to be able to renew on that in the way that I understand the USDA guidance. We can't let them go up on their price if that's not part of our bid originally. • A large percentage of our direct manufacturers have asked for force majeure. I don't know how we can renew on a force majeure a price that was not the bid price.
Cash in lieu of commodities	<ul style="list-style-type: none"> • I don't know if this is a resource or wishful thinking that since USDA commodities and brown boxes are in such short supply that possibly for the 22–23 school year, USDA or Congress might consider cash in lieu because of the extraordinarily high cost.
Maintain higher reimbursement rate	<ul style="list-style-type: none"> • If we're going to keep anywhere near these models, then they're going to have to come up with the higher reimbursement to make it work.
Procurement changes	<ul style="list-style-type: none"> • The only thing would be if USDA would rewrite all their rules for how you do procurement.

D-6*Technical Assistance Needed by PCs: Procurement*

Code/Category	Sample Comments
National buying group	<ul style="list-style-type: none"> • Like you're saying with having some kind of a resource with all the buying groups. So if I knew what other groups did and what other states I could go in, I might be able to call you up and say, hey, I'm working on this. Can you help me? • I used to belong to the Council of Great City Schools when I was a director. That was such a great resource for bouncing ideas off of people that were large, so I think this would be a good idea to have a buying group. • We could get together and do things and talk to each other, so if you know if ICN can put something together ... Just a group of us that maybe once every other month or something we get together and talk that would be a huge resource to me.
No time for technical assistance	<ul style="list-style-type: none"> • I don't think anyone has time for any kind of technical assistance right now, any kind of training period; they're just doing the best they can to get by each day.
Procurement templates	<ul style="list-style-type: none"> • Internet-based templates that we could use for procurement for forecasting. Any kind of these resources would be very valuable to us instead of us all reinventing the wheel ... Having one place that everyone in the country could go to and find out about any product they would want to use in the school would have helped so much.

D-7*Technical Assistance Needed by PCs: Food Supply*

Code/Category	Sample Comments
Communication assistance	<ul style="list-style-type: none"> • What's going on? Can I give that information to their school board, or to their parents, or their community? I think we just lack the communication piece. • Maybe working with the brokers as well who have direct communication with the manufacturer ... we bring in the distributors and the brokers in separately to ask what communication, what we should talk about to our members. • What they're forecasting, what you're seeing six months out ... they do have more of an inkling of what's going on than we do.
Supply chain training	<ul style="list-style-type: none"> • I'm not sure what kind of technical assistance would be, but I don't think the directors understand the whole it's a business. I don't think they understand the model of procurement at all and the food supply chain, so I think they just want to quickly blame the distributor or whatever, but they've got to realize it's the manufacturer ... They just don't have the knowledge, and I don't know. I'm trying to figure out what resources to help them with, what can I give them, trying to communicate weekly to them, what can I do as my role to help the school districts understand.
Support group	<ul style="list-style-type: none"> • We encourage participants to join in [a collaborative] so they have support. You can sign up, and they want to be part of the series, and it's literally everyone in the state that wants to join in. Then it breaks out into breakout groups and can share best practices, what you've done, what's working, what's not, and it's been really great.

D-8

Purchasing Consortiums' Additional Information and Recommendations

Code/Category	Sample Comments
USDA understanding of the situation	<ul style="list-style-type: none"> • I was on a conference call with the regional office USDA a lot last week. We brought up a lot of these points to them ... I have the feeling that they still have blinders on that there aren't any issues out there other than rules, and they were more concerned with what they needed to do to create flexibilities and rules. We kind of just let them know that we're doing the best we can to just feed kids right now. • They've [USDA] already put flexibilities in place that we're not having as much trouble with meal planning and those types of things. But that needs to continue, and we told him it needed to continue on to another year.

APPENDIX E: INDUSTRY**E-1***Industry Participants' Strategies to Ensure SNPs Receive Products and Services*

Code/Category	Sample Comments
Increased planning and preparation	<ul style="list-style-type: none"> • Trying to be ready with an alternative product (manufacturer). • We started preparing for future school years by stockpiling those items in our warehouses (distributor). • Forward-thinking – trying to guess what the next challenge is going to be and plan around it before it affects either your distributor, or their schools, or our direct schools (distributor). • Being more aware of current inventory and distribution at all times (broker).
Communication	<ul style="list-style-type: none"> • We're over-communicating. We're not assuming anything ... if we're going to be late by a few days, we'll call that distributor, will call that customer (manufacturer). • We're trying to encourage schools to go to different packaging options (manufacturer). • We don't have every product, but we're trying to really do our best to communicate what we do have the current supply of (manufacturer).
Adjusting internal operations	<ul style="list-style-type: none"> • We've increased the number of plants that we produce, using smaller plants as well, to fill the number of cases we need to produce and could normally fill (manufacturer). • We're running six days a week, all lines at full capacity. (manufacturer). • We condensed down our portfolio and went with just the bare bones (manufacturer). • We're all having to really reduce SKUs. We're having to look at what we can produce more of (manufacturer).
Meeting basic needs	<ul style="list-style-type: none"> • I know all we're trying to do right now is just get schools food (distributor). • We've done everything we can to continue to service those that we would consider to be partners (distributor).
Outside the box thinking	<ul style="list-style-type: none"> • We're trying to work with the state now to get the systems that could consolidate for deliveries to reduce the amount of deliveries at different locations—see about self-distribution (distributor). • Some schools have allowed key drops, so we're able to deliver in the night when nobody's there, and that's really helped us (distributor).

Being flexible	<ul style="list-style-type: none"> • We're having to import carrots now from Europe just to make enough of this one particular product that a lot of the districts use (manufacturer). • Flexibility is key ... we do what we can to find products that actually will meet some kind of need for them (distributor). • We're trying our best to supplement with orange juice that we seem to be able to get a little bit more readily because it's more local (distributor).
Allocating products	<ul style="list-style-type: none"> • It all does come down to our ability to allocate resources, and those resources are so precious now across the whole United States (distributor). • We're allocating so that everybody gets some, which obviously, a lot of times it's not a great strategy (manufacturer). • Our priority is taking care of the current customers that we have, and we have had to put a lot of items on pause (manufacturer).
Utilizing a disaster recovery plan	<ul style="list-style-type: none"> • The one thing that we've utilized more than anything is the emergency procurement plan (broker).

E-2

Industry Participants' Key Challenges

Code/Category	Sample Comments
Procurement	<ul style="list-style-type: none"> • In some cases, we had bid some pricing in the fall of 2020 for the 2021 school year. Bidding a whole year in advance, not seeing this coming (manufacturer). • Unfortunately, or fortunately, this particular segment (SN) buys ingredients that no one else in the world wants or makes, and there's not enough to really go around to everyone (manufacturer). • The real issue is the massive quantity of products that's needed and the massive quantity of products that they are switching around (manufacturer). • Tried to get convenience items, and those were gone like in the first month, so then we started pushing bulk, but the to-go containers, aluminum foil, and plastic wrap all weren't available because of restaurant industry needing them (broker) • Looking at bids going forward and figuring out how to get new items approved when the current items on the bid aren't even available. (broker). • Director's over-ordering food and then trying to shop the truck when the truck shows up (distributor). • Our biggest challenge is getting the product, and a lot of times, we don't know until the truck arrives from the vendor that we're not getting it (distributor). • To come up with alternatives to fill their needs is biggest challenge for me right now (distributor). • The majority of the schools are all providing free lunches, so we've seen a large increase in demand. Our demand is over 2019 levels, so that's been a big challenge (distributor). • The force majeure, the substitutions, the contracts we're noticing more and more are very one-sided. That all goes towards the school, as far as what looks like to us as far as price increases. If we have contracts that say if we're going to substitute, it has to be at the same price proportion or less, and sometimes it's not possible (distributor).
Labor/staffing	<ul style="list-style-type: none"> • We would love to be able to produce six days a week as much as we possibly can, but we are constrained by the amount of labor that shows up every day (manufacturer). • We did go through restructure ... and due to that restructure, we did have some people with decades of K-12 experience, who are no longer on our team anymore ... these are the people that were forecasting product's ... not immediate effect, maybe this summer,

	<p>but I think you're going into fall ... it's going to be some growing pains (manufacturer).</p> <ul style="list-style-type: none"> • The part that is rather difficult today is our distribution partners fired half the people that work for them, so most of the people that you ever used to deal with, especially in K through 12, are gone. They don't exist. (manufacturer). • Once it gets to a distributor, our distributors are turning away our trucks; they're canceling orders because they don't have the pickers (broker). • We've lost a lot of workers out of our industry (broker). • Our driver shortage in-house has been very challenging (distributor).
Transportation	<ul style="list-style-type: none"> • Transportation is an absolute nightmare (manufacturer). • You're talking about a \$10 and \$12 case on six #10 Mandarin oranges. The freight went from \$2,000, and it jumped up to \$21,000 (broker). • No matter what type of manufacturing facility you have or what type of distribution facility you have, we are all impacted by the trucking industry (distributor). • We're having issues, not so much with the inbound product or produce, but with drivers on our own fleets (distributor).
The unknown	<ul style="list-style-type: none"> • It's tough when you're doing bids in December of last year, and how were you supposed to predict a Black Swan ripple effect at that time (manufacturer)? • A lot has to do with crop production; when COVID-19 was at its peak, nobody really knew how much to plant (manufacturer). • Not knowing what's going to arrive at your customer (broker). • They're trying to forecast and help us ... it's hard when you don't know what is going to come; you know what next week will be like, much less next month will be like (broker).
Supply chain	<ul style="list-style-type: none"> • I'm not going to repeat everything that everyone else said, but I agree on the supply chain (manufacturer). • I know all we're trying to do right now is just get schools food ... there's a lot of things that are happening right now in the industry that's making it very difficult from supply chain issues (manufacturer). • They might have to go to the fourth vendor since the first three or four who were awarded the business cannot fulfill orders (broker).
SNP issues	<ul style="list-style-type: none"> • I've had school district attorneys write letters to us about proposed pricing adjustments. I've had states threaten to bar from using us for non-fill or non-honoring of pricing for three years, which means there is no knowledge of what's been going on

	<p>(manufacturer).</p> <ul style="list-style-type: none"> • We often receive bids with no quantities. Some of the basic fundamental stuff is lacking, and that makes no sense (broker). • School directors being inflexible and not wanting to stay late to receive their orders if the deliveries are late (distributor). • Getting information about what your specific school district items are going to buy, in approximately what quantities, to start the school year, to a large degree, was like pulling teeth (distributor). • Communication for all of us with our SNP customers has been a big challenge(distributor).
Production	<ul style="list-style-type: none"> • Many of the plants that will produce are effectively filling other orders, mainly in retail but also foodservice. So we're basically competing for line time against retailers like grocery stores (people that want to pay more) that can buy that line time ... (manufacturers).
Regulations/ requirements	<ul style="list-style-type: none"> • Nobody wants to supply them [schools] because of their rules and regs (manufacturer).
Public perception	<ul style="list-style-type: none"> • Parents are going, my gosh, this is what my kid gets for lunch? I get nervous about what image we're putting forward across the country with these kinds of meals we have out there (broker).
Lack of innovation/inability to innovate	<ul style="list-style-type: none"> • The lifeblood of businesses is new products ... we've got to be focused on what we can get them, the mainstay products we can't run in with a new widget (broker).
Equipment	<ul style="list-style-type: none"> • From an equipment perspective, we are experiencing long, very long lead times on a variety of manufacturers. One currently is walk-in coolers and freezers. There's a shortage of the flame retardant to make the foam (broker).

E-3

Industry Participants' Perspectives on Changes

Code/Category	Sample Comments
SKU reduction/ simplification	<ul style="list-style-type: none"> • You're going to see SKU reductions like you've never seen before (manufacturer). • You're going to see ingredient cleaning and improvement across the channels. But I don't know if you're going to see a massive amount of brand new items because fighting with your R&D division to make a new item when they already don't have line time to make the item that you ready make. You're going to end up having to swap SKUs. They're going to be in a meeting where OK, you need to eliminate these five SKUs, and then we'll do this one (manufacturer). • We're really going through a lot of that SKU reduction ourselves.
Yes	<ul style="list-style-type: none"> • From my end, the changes are here to stay (distributor). • Higher minimums, you know, orders forecasting in advance, things like that that we cannot revert back to some of the things that we were doing prior (distributor).
High competition for line time	<ul style="list-style-type: none"> • I'm fighting with my own internal people for line time. You know, do we make it for Costco today, or do we make it for my K-12 business today? Which ones are paying us more money right now? Which one? Well, yeah, that's what it's come down to (manufacturer).
Virtual communication	<ul style="list-style-type: none"> • I think virtual communications and sales calls are here to stay (manufacturer).
Higher reimbursement rate	<ul style="list-style-type: none"> • I think the high reimbursement rate will be here because freight is not going anywhere. Freight increases are only going to continue, so I think that is possible.
Increased pricing	<ul style="list-style-type: none"> • I can assure you, school year 22-23 is going to look like nothing any of you have ever seen in the history of pricing for school foodservice (manufacturer).
New business model	<ul style="list-style-type: none"> • When these kinds of things happened, and that's where I just think the bigger picture for us, or where we're headed, is going to be a change in the model of business that we're in (broker).
Shorten sales process	<ul style="list-style-type: none"> • Communicate with a director two weeks before you are actually in the market ... have your samples ... to shorten the sales process (manufacturer).
Streamlined processes	<ul style="list-style-type: none"> • 20 different lines, I don't see that coming back for three to five years (broker).

E-4*Industry Participants' Recommended Strategies to Control Costs*

Code/Category	Sample Comments
Forecasting	<ul style="list-style-type: none"> • You got to focus on one thing ... the longer I can run one thing, the better it is for pricing, production capacities, yields, and for the distributor to have your product. (manufacturer). • I think forecasting is probably the biggest opportunity (broker).
Streamline procedures	<ul style="list-style-type: none"> • Streamline! ... on your co-op bid, do you really need 18 chicken nuggets? Do you really need 19 hamburgers? (manufacturer). • It's not their fault, but I think a better understanding with their industry, with distributors, just understanding how it all fits together, and maybe they can work on it with us to get a better, more streamlined procedure (manufacturer).
Ask SNPs to use alternatives	<ul style="list-style-type: none"> • If we say, hey, please limit your apple usage and use more orange, they do. They work with us all the time (distributor).
Incentivize delivery strategies	<ul style="list-style-type: none"> • I'm trying to incentivize the districts to coordinate deliveries to a central location if they are able to and give them a stipend off of their invoice (distributor).
Be flexible to control costs	<ul style="list-style-type: none"> • They might want to also think about some of their bid language, and the flexibility that they are putting in their bids when it comes to fill rates (manufacturer).
Become more efficient	<ul style="list-style-type: none"> • For the district, try to become more efficient because they're dealing with less employees, and they can't keep them (broker).
Communication recommendations	<ul style="list-style-type: none"> • Each of the district managers, supervisors, or even directors, should do that planning ahead of time and be a good customer (broker).
Procurement revisions	<ul style="list-style-type: none"> • Some of the new bids that have come out right now have like a 97% fill rate in there. That's not going to happen (manufacturer).

E-5

Industry Participants' Recommended Training for SNPs

Code/Category	Sample Comments
Procurement	<ul style="list-style-type: none"> • Create long-term pricing models that allow for formula pricing and lock margins for all parties, and cover raw materials increases (manufacturer). • Consider more flexible RFP-type procurements to allow for maximum flexibility of purchases vs. bids that truly are outdated and no longer work in our challenging supply chain environment (manufacturer). • Honestly, many directors struggle with the procurement of equipment, so more training is needed (broker). • Understanding the different procurement processes and utilizing the best practice for the type of procurement and allowing the appropriate amount of response time (distributor). • Become educated about K–12 specific GPOs (distributor). • How to write a great bid. Who are the stakeholders, and why? How to post bids and bid awards and why? (broker). • Understanding the climate for suppliers to commit to guaranteed costs is critical to asking distributors to do so on their bids (distributor).
Supply chain	<ul style="list-style-type: none"> • Understanding the cycle/relationship between SN customer, distributor, manufacturer, supplier, and co-packer. Also, an understanding of logistics and the causes of disruption in the supply chain (manufacturer). • Knowing that the majority of fresh produce delivered to schools comes from the west coast and how the lead time required from east coast distributors from order to delivery impacts our ability to fill orders properly (distributor).
How to be flexible/adapt	<ul style="list-style-type: none"> • Use commercially available products whenever possible (manufacturer). • How our containers can be used for multiple applications (manufacturer). • Be flexible on flavor availability and substitution as long as the product meets the same component on the USDA plate (manufacturer).
Forecasting	<ul style="list-style-type: none"> • The timeline process of getting food into their cafeterias ... how to forecast case values (manufacturer). • Forecasting formulas (manufacturer).
Labor/product mix	<ul style="list-style-type: none"> • Analyze convenience items over bulk and labor. Understanding labor and convenience might both be issues (broker).

How to be a valued customer	<ul style="list-style-type: none"> • Schools need to look at becoming more attractive customers to distributors and manufacturers, so they are not the first foodservice segment that gets ditched when the supply chain is challenged (manufacturer).
Other	<ul style="list-style-type: none"> • Having finance and business training in ag economics is helpful (broker).

Note: Multiple responses allowed.



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