



Competencies, Knowledge, and Skills of Effective
School Nutrition Assistants/Technicians

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The University of Southern Mississippi

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Competencies, Knowledge, and Skills of Effective School Nutrition Assistants/Technicians

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COMPETENCIES, KNOWLEDGE, AND SKILLS OF EFFECTIVE SCHOOL NUTRITION TECHNICIANS/ASSISTANTS

(Resource Available in Appendix K.)

EXECUTIVE SUMMARY

The Competencies, Knowledge, and Skills (CKS) series is the Institute of Child Nutrition (ICN) Applied Research Division's signature research-based resource for child nutrition (CN) professionals. The CKS resources identify necessary competencies, knowledge, and skills needed by professionals at all levels who are employed in CN programs to perform their job functions effectively. These resources provide a foundation for developing job descriptions and staffing plans, and they are useful for conducting interviews, performance appraisals, and mentoring plans, as well as organizing annual training schedules. Because the field of CN is continually changing, CKS resources must be updated routinely to reflect the current needs of CN programs. This research project, an update of the 2006 CKS by Nettles and Carr, was designed to create a current CKS resource for school nutrition (SN) assistants/technicians who work in the school setting at the local level.

For the purposes of this research, SN assistants/technicians are those foodservice employees who work in a local SN program under the direction of an SN manager. Due to the vast diversity in how SN programs function, this position may cover a broad range of job responsibilities related to food production, sanitation, and program accountability. Examples of these responsibilities include, but are not limited to, the following: cooking and food preparation, setting up serving areas, serving meals, operating point-of-sale (POS) systems, receiving food and supply deliveries, and conducting physical inventories.

This research project started in 2019 and was conducted in three phases with a diverse group of SN directors and supervisors (n=41) from districts of varied sizes in all seven United States Department of Agriculture (USDA) Food and Nutrition Service regions as follows:

- Phase I included a literature review, four case study site visits, collection and review of job descriptions, and an electronic expert work group of SN directors (via email) whose members identified functional areas for SN assistants/technicians.
- Phase II included a two-day, face-to-face, expert work group tasked with developing CKS statements for the identified functional areas.
- Phase III included an electronic review panel who evaluated the CKS draft resource (via email), a one-day face-to-face expert work group who identified content for instructing users on how to best utilize the CKS resource, and an electronic review panel who evaluated a nationwide survey for training needs. A nationwide survey was planned but due to the COVID-19 pandemic, distribution of the survey was put on hold.

After Phase II, the expert work group recommended six functional areas: Equipment Use and Care, Food Production, Food Safety and Sanitation, Personal Characteristics, USDA Meal Program Requirements, and Workplace and Employee Safety. The expert work group reached a consensus to include 15 competencies and 36 knowledge and skill statements within the six functional areas.

The CKS resource developed from this research can be used as a guide for writing job descriptions, conducting interviews, planning training sessions, mentoring SN assistants/technicians, and conducting performance appraisals. Links for electronic tools for job descriptions, interviews, mentoring, and performance appraisals can be found on the ICN website (<https://theicn.org/research>).

Definitions

Researchers used the following definitions, which were slightly revised from those used in the development of the 2006 CKS resource:

- **School nutrition assistants/technicians** are the foodservice employees who work within the local school foodservice operation under the direction of an SN manager.
- **Functional areas** are the broad groupings or categories of similar tasks that reflect job duties performed by assistants/technicians within the local SN operation. These categories serve as an umbrella for all tasks listed on a work schedule or are done on a daily, weekly, or seasonal basis within the school year.
- **Competencies** are the areas of expertise and accountability within each functional area.
- **Knowledge** is the information a person has in specific content areas that is necessary for successful performance in a competency area.
- **Skills** are the abilities to perform certain physical and/or mental tasks that are necessary for successful performance in a competency area.

INTRODUCTION

Since its inception, the ICN (formerly the National Food Service Management Institute [NFSMI]) has been the leading authority in the identification of competencies, knowledge, and skills (CKS) needed by professionals working in CN programs. The most recent research studies for CKS have been conducted for State agency CN personnel (Cross & Nettles, 2014), SN directors and supervisors (Nettles, Asperin & Carr, 2010), SN managers (Lewis & Lartey, 2018), SN assistants and technicians (Nettles & Carr, 2006), and child care providers (Lartey-Rowser, 2016).

Since 2015, the USDA Professional Standards for All School Nutrition Employees (USDA, n.d.) require at least six hours of annual training for SN staff who work 20 hours or more per week and at least four hours of annual training for SN staff who work fewer than 20 hours per week. Those who are hired after January 1 must complete half of the required training hours for the school year (generally July 1–June 30).

There is limited research on the duties and training of SN assistants/technicians. A literature review revealed limited studies that are discussed here. Stephens and Byker Shanks (2015) reviewed 14 peer-reviewed research articles published between January 1990 and February 2014 on SN staff training interventions. They found a lack of knowledge regarding effective SN training as well as a lack of accessible and validated evaluation tools for SN training. They concluded that appropriate training could lead to increased participation, decreased food waste, and ultimately, better nutrition for students. They recommended future research explore time-efficient and cost-effective training techniques and strategies for SN personnel.

Some researchers have conducted studies on the food safety practices of SN assistants/technicians. Alcorn et al. (2019) explored SN employees' (n=43) beliefs on handwashing, thermometer use, and handling of food and work surfaces. The research team hosted four focus groups with employees from four districts in three states. The topic of handwashing was most frequently discussed by employees in all groups, and proper training was a theme in two of the four focus groups. The SN employees felt a sense of pride in their efforts to keep foods safe.

Sauer et al. (2018) explored food allergy training topics with a survey of SN directors, supervisors, and managers (n=480). About half (51.3%) of districts provided training on food handling practices for reducing exposure to allergens. Training about food allergies and key terms, along with potentially life-threatening food allergies and signs and symptoms of food allergies, was reported by 36.7% and 31.1% of directors, respectively. These results indicated there is room for improvement in food allergy training in the SN setting.

Stokes and Arendt (2017) interviewed hourly SN employees from six schools regarding farm-to-school barriers and keys to success. Appearance of produce, shelf life, student preferences, and product availability were identified as barriers to using local produce. They used the results to design a survey about farm-to-school barriers with a larger sample. Notham and Stokes (2018) found that SN assistants/technicians who received training about promoting and processing local produce items were significantly more confident ($p < .001$) in their ability to know where it was from, how to prepare it, and how to incorporate it into recipes.

School nutrition assistants/technicians are vital to the operation of successful SN programs. Training is essential to ensure the work is completed properly. This CKS research project focused on SN assistants/technicians who work at the local school cafeteria under the direction of an SN manager. The objective of this study was to update the 2006 CKS (NFSMI, 2006) needed by effective SN assistants/technicians in the current SN environment. The CKS needed to be updated due to changes in SN programs since 2006. An important change was the implementation of Professional Standards for SN professionals (USDA, 2020). The Standards require six hours of annual training for full-time SN assistants/technicians and four hours of annual training for part-time SN assistants/technicians.

Definitions

Researchers used the following definitions, which were slightly revised from those used in the development of the 2006 CKS resource:

- **School nutrition assistants/technicians** are the foodservice employees who work within the local school foodservice operation under the direction of an SN manager.
- **Functional areas** are the broad groupings or categories of similar tasks that reflect job duties performed by assistants/technicians within the local SN operation. These categories serve as an umbrella for all tasks that are listed on a work schedule or are done on a daily, weekly, or seasonal basis within the school year.
- **Competencies** are the areas of expertise and accountability within each functional area.
- **Knowledge** is the information a person has in specific content areas that is necessary for successful performance in a competency area.
- **Skills** are the abilities to perform certain physical and/or mental tasks that are necessary for successful performance in a competency area.

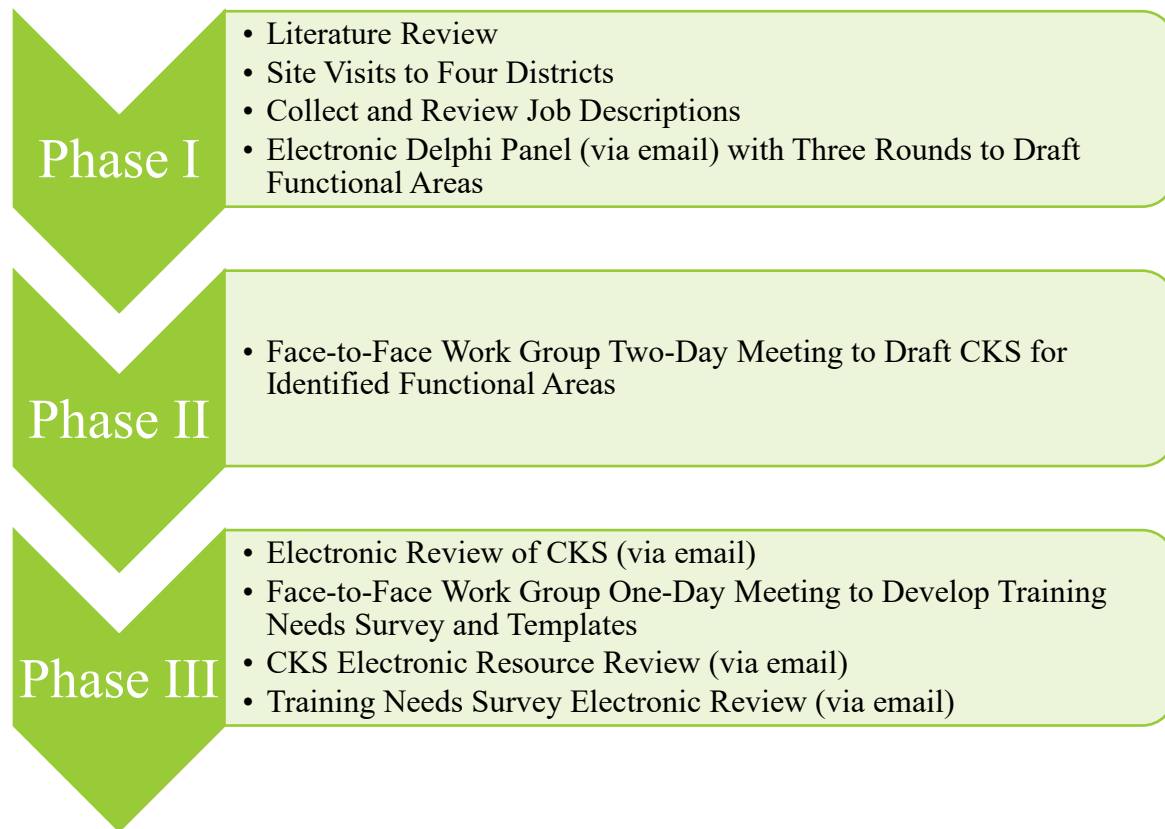
METHODS

Project Design

This project began in 2019, and data collection was completed in 2020. Researchers conducted the project in three phases. (See Figure 1.)

Figure 1

Update of Competencies, Knowledge, and Skills for Effective School Nutrition Assistants and Technicians



Recruitment of School Nutrition Directors for All Phases

The researchers contacted State agency CN directors in 50 states via email and asked each to provide recommendations of three to five SN directors for potential participation in this study. Specifically, they requested recommendations for SN directors who operate exemplary SN programs as indicated by high participation, good financial status, and documented USDA compliance with nutrition standards. A goal in the selection of participants was to include a variety of diverse school districts from all USDA regions based on the following criteria: school district size by student enrollment (small, medium, large), socioeconomic status (percentage of students eligible for free- and reduced-price meals), and National Center for Education Statistics Urban-Centric Locale Codes from the Public Elementary/Secondary School Locale Code File (National Center for Education Statistics).

The researchers obtained approval and followed informed consent procedures established by the Institutional Review Board at The University of Southern Mississippi for all three phases of this research study.

Phase I

Literature Review

A search for literature regarding SN assistants/technicians and their duties and responsibilities within SN programs was conducted using university library search tools and a search of *The Journal of Child Nutrition and Management* available at <https://schoolnutrition.org/JCNM/>. In addition, literature regarding the training of SN assistants/technicians was found. The search terms included “school nutrition employees,” “school nutrition assistants,” and “school nutrition technicians,” combined with “duties,” “responsibilities,” and “training.”

Site Visits

Site visits were made to four school districts in the Mid-Atlantic, Southeast, Southwest, and Western USDA regions. Codes from the National Center for Education Statistics were used to classify the districts with the four districts classified as Rural: fringe, Town: remote, Suburb: large, and City: large. The site visits were completed in one day by the same researcher and included informal interviews and/or group meetings with directors, managers, and SN assistants/ technicians as well as observations of SN assistant/technician activities (throughout the day) to familiarize the researcher with this position and duties. Also, job descriptions for SN assistants/technicians were collected from directors and managers. Appendix A contains the email follow-up to SN directors and the data collection tool used at these site visits.

Job Descriptions

Researchers contacted all SN directors (n=67) recommended by State agency directors and asked them to provide job descriptions for all positions at a local school cafeteria in which staff report to an SN manager. A total of 81 job descriptions from all seven USDA regions were analyzed by researchers with the knowledge and skill statements compiled and compared to the 2006 version of the CKS. Following the comparison, a list of 150 possible knowledge and skill statements was created.

Electronic Delphi Panel

Round 1.

Invitations were sent to SN directors from all USDA regions, inviting them to be part of the expert panel. A modified Delphi Technique was used for the three rounds of review in Phase I. The Round 1 invitation and questionnaire included open-ended questions asked of 14 expert panel members to list the functional areas/broad groupings that they thought best summarized the responsibilities of SN assistants/technicians. (See Appendix B.)

Round 2.

The results of Round 1 were used to create the questionnaire sent in Round 2. The Round 2 questionnaire listed the 40 functional areas identified in Round 1. The researchers emailed the Round 2 questionnaire along with instructions outlining steps to use in the completion of the questionnaire to each expert panel member. Panel members were instructed to rate their agreement with each functional area using a 4-point scale, ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). Next, panel members indicated if each functional area was appropriately categorized and, if it was not, to describe the reason. Panel members were then asked to consider the possibility of combining functional areas. They were instructed to reflect on each functional area definition, decide if it could be combined with another functional area(s), and if so, suggest the functional area(s) with which it might be combined. Lastly, they were asked to propose suggestions for re-wording the functional areas or new functional areas, if combined with another area. (See Appendix C.)

Round 3.

In the final round of the Delphi Panel, expert panel members reviewed the Round 2 summary and completed the Round 3 questionnaire. (See Appendix D.) Panelists were asked whether the 40 functional areas identified from Round 2 should be combined or stand alone, and if combined, to propose a name for the combined functional areas.

Phase II

Face-to-Face Meeting Invitation

An email was sent to invite SN directors to participate in an expert work group (n=17) in a two-day face-to-face meeting at the ICN facilities in Hattiesburg, Mississippi. The purpose of the meeting was to organize the knowledge and skill statements into competency areas within the functional areas. (See Appendix E.)

Pre-Meeting Assignment

The 150 knowledge and skill statements developed in Phase I were divided into two sets. Expert work group participants were expected to evaluate one of the two sets of draft statements before attending the face-to-face meeting and to bring their comments to the face-to-face meeting. (See Appendix F.)

Face-to-Face Meeting

The expert work group included SN directors (n=17) from all USDA regions. Three of them were part of the Phase I site visits. They attended the two-day meeting on October 29 and 30, 2019. The first-day time schedule was 8:30 a.m. to 5:00 p.m., and the second-day time schedule was 8:00 a.m. to 4:00 p.m. (See Appendix E for detailed agenda.) Participants were pre-assigned by the researcher into two groups of six and one group of five to ensure regional representation and district size representation. Group 1 (n=6) was from districts in six regions with 1,920 to 22,052 students. Group 2 (n=5) was from districts in four regions with 423 to 39,455 students. Group 3 (n=6) was from districts in six regions with 118 to 84,000 students. Each group was assigned two or three functional areas with directions to:

- Review the wording of each draft statement and take action.
- Classify the statement into one of the identified functional areas.
- Come to an agreement on the knowledge and skill statements within each functional area.
- Identify any gaps that need to be addressed.
- Group similar knowledge and skill statements within each functional area to develop competency statements.

The process within the three groups was as follows:

1. Select a leader, recorder, and timekeeper.
2. Consider the district diversity of SN professionals in each group.
3. Discuss comments from the review of the pre-meeting documents.
4. Review each knowledge and skill statement and determine whether it reflects what is needed for an SN assistant/technician.
5. Decide on the action to take for each statement.
6. Record the decision on the printed cardstock statement (or write a new one) AND on the summary form.

After the three groups were finished making decisions about the knowledge and skill statements, the competencies were developed, and a consensus was reached among all 17 SN directors. The ICN has successfully used this process for other CKS updates. The ICN research staff in attendance compiled the results of the work groups.

Phase III

Electronic Review Panel

School nutrition directors (n=5) were asked to evaluate the draft *Competencies, Knowledge, and Skills for Effective School Nutrition Assistants/Technicians* document for content validity and clarity via an email survey. They were asked to evaluate the wording of knowledge and skill statements and the placement of the knowledge and skill statements within functional areas. (See Appendix G.)

Face-to-Face Work Group Meeting

The purpose of this one-day face-to-face work group meeting from 8:30 a.m. to 5:00 p.m. in Hattiesburg, Mississippi, was to develop tools to accompany the recently drafted *Competencies, Knowledge, and Skills for School Nutrition Assistants/Technicians*. Seven SN directors from four USDA regions attended the work group meeting. The directors were not involved in previous phases. (See Appendix H.)

The specific objectives of the work group meeting were to:

1. Develop an online national survey based on the revised CKS resource to determine the current training and professional development needs of SN assistants/technicians at the district and national levels.
2. Identify a framework for needed interactive online competency-based templates to support SN managerial staff in human resources-related activities as they pertain to SN assistants/technicians. Examples include job descriptions, performance appraisals, staff training plans, mentoring guides, succession plans, etc.

Review of the CKS Resource

Researchers prepared a CKS resource that included the tools developed in the face-to-face work group meeting. SN directors who had participated in a previous phase of the project (n=10) were asked to review the resource and to give feedback. (See Appendix J.)

Training Needs Survey

The training needs survey was developed using Qualtrics Survey Software and was completed by 13 SN directors, including some who participated in previous phases. The SN directors were asked via email to take the survey and to respond to the following open-ended questions:

- Are the instructions clear?
- Are the survey questions easy to answer?
- Are there any changes you recommend?
- How much time did it take to complete the survey?
- Do you have additional comments?

RESULTS AND DISCUSSION

Phase I: Review of Literature

There is limited literature on SN assistants/technicians and their competencies, knowledge, and skills. Also, there is limited research on the topics of duties, responsibilities, and training of SN assistants/technicians. A literature review revealed limited studies that are discussed in the Introduction.

Phase I: Site Visits

One of the researchers completed the four one-day site visits to four school districts in the Mid-Atlantic, Southeast, Southwest, and Western USDA regions. Informal interviews and group meetings with directors, managers, and SN assistants/technicians, and observations of SN assistant/technician activities (throughout the day) familiarized the researcher with the SN assistant/technician position and duties. The researcher analyzed the observational data, interview data, and meeting data. Also, job descriptions for SN assistants/technicians were collected from directors and managers.

Phase I: Job Descriptions

Eighty-one job descriptions from all seven USDA regions, including those job descriptions from the site visits, were compiled by the researcher, and knowledge and skill statements were compiled along with all of the knowledge and skill statements from the 2006 CKS. Duplicates were combined. A total of 150 unique knowledge and skill statements were identified.

Phase I: Electronic Delphi Panel

Round 1

Ten of the invited 14 Delphi panelists participated in identifying functional areas and providing definitions in Phase I of the study. All of the panelists were SN directors. Table 1 has the demographic characteristics of the panelists.

Table 1*Personal Characteristics of Phase I Rounds 1–3 Expert Panel Members (n=8; missing 2)*

Characteristic	Frequency	Percentage
Years worked in school nutrition programs		
1 to 5 years	1	12.5
6 to 10 years	1	12.5
11 to 15 years	1	12.5
16 to 20 years	3	37.5
Greater than 20 years	2	25.0
Certification/credential status ^a		
School Nutrition Association Certification Level 3	3	37.5
School Nutrition Association Certification Level 4	1	12.5
ServSafe® Certified	7	87.5
School Nutrition Specialist	3	37.5
Highest level of education		
Associate degree	2	25.0
Bachelor's degree	3	37.5
Some graduate credits	2	25.0
Master's degree	1	12.5

^aSome panel members had more than one certification/credential.

In Round 1 of the Delphi survey, the expert panel members generated a list of functional areas that they perceived to describe the job tasks or duties performed by SN assistants/technicians. Researchers grouped most of the 40 proposed items into nine groupings identified by two or more panelists, as shown in Table 2, for the next round of review. These included: sanitation, safety, and security (items 1–7); food production (items 8–13); service of food (items 14–16); cash handling/computer skills/technology (items 17–21); customer service (item 22); program regulations and accountability (item 23); receiving and storage (items 24–27); record keeping (items 28–29); and communications (items 30–32). Eight additional functional areas (items 33–40) were proposed.

Table 2*Summary of Phase I Round 1 Proposed Functional Areas*

Proposed Functional Areas	Definition Provided
Safety, Sanitation, and Security	
1. Food Safety and Sanitation	Formal training and certification. Practices safe food handling and sanitation procedures using Hazard Analysis Critical Control Points guidelines and procedures. Completes food safety and sanitation records as required. Follow food safety requirements in all aspects of food preparation and cooking, as well as cleaning and personal hygiene.
2. Food Safety (Hazard and Critical Control Point [HACCP])	First-In, First-Out (FIFO), Handwashing, foodborne illness. Takes all precautions necessary to keep food safe and not make kids sick. Fully understands safe food handling, including proper cooking temperatures and personal hygiene.
3. Sanitation	Removes pathogens from a food contact surface with an approved method of sanitation.
4. Sanitation/Cleaning	Can recognize a clean kitchen. Fully understand and comply with sanitation schedules as determined by local health authorities. Removing visible debris from work surfaces, walls, doors, and floors.
5. Safe Work Environment/ Employee Safety	Keeping the workplace clean. Promoting safety in department, including lifting, bending, use of carts, safe work practices. Understand proper lifting, cutting, storage, and cooking techniques to minimize the chance of personal or personnel injury.
6. Equipment Use and Care	Using and cleaning equipment correctly and safety. General knowledge and ability to use and operate all kitchen equipment involved in foodservice operations.
7. Cleaning and Equipment Maintenance	Clean and maintain safe and sanitary kitchen spaces during and after food preparation and service. Maintain and care for kitchen equipment according to Standard Operating Procedures.

(Table 2 continues)

*(Table 2 continued)**Summary of Phase I Round 1 Proposed Functional Areas*

Proposed Functional Areas	Definition Provided
Food Production	
8. Cook/Baker	Person responsible for preparing food items.
9. Food Preparation	Basic knowledge of knife skills, hot food hot, cold food cold. General food preparation knowledge. General knowledge of National School Lunch Program (NSLP) requirements. Prepares entrees/side dishes per menu and production records. NSLP guidelines are followed in all aspects of preparation. Use recipes and menu planning tools to accurately and efficiently prepare food for cooking (chopping, dicing, slicing, etc.) or assembling foods such as salads and sandwiches.
10. Cooking	Basic knowledge of terms and equipment. Using recipes and various techniques to heat foods to proper temperature and doneness. Use recipes and menu planning tools to accurately and efficiently prepare foods that require heating and cooking techniques, including boiling, steaming, braising, baking, roasting, and sautéing.
11. Quantity Foodservice Production	Production flow, batch cooking, just in time.
12. Food Production	Large quantity cooking and prep. Read recipes and production records, record quantities on production records, cook.
13. Culinary Skills	None provided.
Service of Food	
14. Server/Serving	Person responsible for plating reimbursable meals.. The ability to place properly portioned menu items on a tray.
15. Foodservice	Sets up, monitors, and serves food in designated areas following NSLP regulation. Demonstrates customer service skills in interactions with co-workers and guests. Ability to work in large crowds.
16. Presentation of Food Items	Knows techniques to present menu items attractively on plate or tray. Understands concepts of placing healthier food items – i.e., smarter lunchroom techniques.

(Table 2 continues)

*(Table 2 continued)**Summary of Phase I Round 1 Proposed Functional Areas*

Proposed Functional Areas	Definition Provided
Cash Handling/Computer Skills/Technology	
17. Point of Sale	Understand what constitutes a reimbursable meal as well as how to record what student receives the meal.
18. Cashier/Clerk/Cash Handling	Person responsible for accountability of all meals served. Using a point of sale (POS) system/cash register to assist students and adults to pay for meals and other food items. Cashing out registers at the end of the day.
19. Food Sales	Assists with food sales following NSLP regulations. Demonstrates customer service skills in all interactions.
20. Financial	Basic math, counting money.
21. Basic Computer Skills	Ability to use email, POS software, web, put in time off requests clock in and out.
Customer Service	
22. Customer Service	Creating an eating and dining area where students feel welcome. Positive student interactions. Good listening skills, positive attitude. People focus. Provide top-notch service to all that enter the kitchen, cafeteria, and school. Smile, use positive expectancy and positive language. Be an advocate for the program. Serving students on the serving line and responding to student needs. Responding to requests and needs of teachers and other adults, including parents as well.
Program Regulations and Accountability	
23. USDA Meal Program Requirements/Program Regulations and Accountability	Reimbursable meals, audit requirements. Understand meal patterns and what a reimbursable meal is. The ability to recognize a reimbursable meal and properly assign or charge that meal to a student.

(Table 2 continues)

*(Table 2 continued)**Summary of Phase I Round 1 Proposed Functional Areas*

Proposed Functional Areas	Definition Provided
Receiving and Storage	
24. Receiving/Stocking	Understanding in handling supply orders. Properly store perishable and non-perishable foods using the FIFO method.
25. Inventory Replenishment	Help communicate all food and supply needs to personnel who orders.
26. Food and Inventory Maintenance	Participate in ordering food as needed. Accurately label and store food during and after preparation and service. Receive, inspect, and put away deliveries according to Standard Operating Procedures.
27. Inventory Control/Management	Basics in managing stock and storage. Assists with inventory control through accurate recordkeeping. Assists with monitoring, control, and limitation of food waste.
Record Keeping	
28. Record Keeping/Documentation	Knowledge for logging data. Completes all required kitchen records related to food preparation, sales, inventory, and food safety/sanitation. Ability to read, write, and communicate in English.
29. Preparing Reports	Accurately complete daily menu production records and other reports as required.
Communication	
30. Communication and Teamwork	Be able to listen for understanding and provide useful and positive feedback to all.
31. Program Promotion	Communicates effectively both orally and in writing and demonstrates professional commitment to promoting program goals and values.
32. Communication Skills	Emotional Quotient, ability to read recipes, follow instructions. Communicates effectively with co-workers, guests, and others involved in foodservice operations. Customer service experience.

(Table 2 continues)

*(Table 2 continued)**Summary of Phase I Round 1 Proposed Functional Areas*

Proposed Functional Areas	Definition Provided
Additional Proposed Functional Areas	
33. Manageability	Team player accepts direction and coaching.
34. Can work on a team/ Team Membership	Realizes how individual work relates to others on the team. Fosters a team environment and participates fully as a member of a team.
35. Quality Control	Provides assurance controls to maintain high-quality food products, food safety, and sanitation methods are met.
36. Food Distribution	Assists with on-site and off-site distribution of food products to guests.
37. Training and Self Improvement	Participates fully in training activities to improve job skills and maintains a positive attitude related to self-improvement.
38. Physical Requirements	Ability to stand and walk on hard floors for extended periods of time. Ability to lift and safely carry objects weighing up to 50 pounds. Ability to work in range of temperatures, including time spent in walk-in refrigerator and freezer.
39. Can Work with a Deadline	Understands the importance of strict service times.
40. Willing to Learn Regulatory Practices	Ability to keep pace with changing regulations.

Round 2

In Round 2, the Delphi panelists (n=9) were asked to rate their level of agreement with the identification of the 40 proposed functional areas for SN assistants/technicians from Round 1 using a 4-point scale (4 = *Strongly Agree*; 3 = *Agree*; 2 = *Disagree*; 1 = *Strongly Disagree*) and recommend combinations as well as suggest names for these. Table 3 has the results of the ratings.

Table 3

Delphi Panelists' (n=9) Mean Levels of Agreement and Standard Deviation for Proposed Functional Areas in Phase I Round 2

Proposed Functional Areas	Level of Agreement*		
	n	Mean	SD
Food Safety and Sanitation	9	3.9	0.3
Food Safety	9	3.3	0.9
Sanitation	9	3.3	1.1
Sanitation/Cleaning	9	3.2	1.1
Safe Work Environment/Employee Safety	9	3.4	0.5
Equipment Use and Care	9	3.3	0.7
Cleaning and Equipment Maintenance	9	3.3	0.7
Cook/Baker	9	2.8	1.2
Food Preparation	9	3.4	0.7
Cooking	9	3.0	0.7
Quantity Foodservice Production	9	2.7	1.0
Food Production	9	3.0	1.0
Culinary Preparation Skills	9	2.3	1.2
Server/Service	9	3.1	1.1
Foodservice	9	3.3	1.0
Presentation of Food Items	9	2.8	1.2
Point of Sale	9	3.3	1.0
Cashier/Clerk/Cash Handling	9	3.3	1.0
Food Sales	9	3.1	1.1
Financial	9	2.7	1.2
Basic Computer Skills	9	3.4	0.7
Customer Service Skills	9	3.4	0.7
USDA Meal Program Requirements/Program Regulations and Accountability	9	3.8	0.5
Receiving/Stocking	6	2.5	1.0

*4 = Strongly Agree, 3 = Agree, 2 = Disagree, 1 = Strongly Disagree

(Table 3 continues)

(Table 3 continued)

Delphi Panelists' (n=9) Mean Levels of Agreement and Standard Deviation for Proposed Functional Areas in Phase I Round 2

Proposed Functional Areas	Level of Agreement*		
	n	Mean	SD
Inventory Replenishment	6	2.3	0.8
Food and Inventory Maintenance	6	2.8	1.0
Inventory Control/Management	6	2.7	0.8
Record Keeping/Documentation	6	2.8	1.2
Preparing Reports	6	2.7	0.8
Communication and Teamwork	9	3.3	0.9
Program Promotion	9	3.3	0.7
Communication Skills	9	3.2	0.8
Manageability	9	3.4	0.7
Can Work on a Team/Team Membership	9	3.7	0.5
Quality Control	9	3.4	0.7
Food Distribution	9	2.9	1.1
Training and Self Improvement	9	3.1	1.1
Physical Requirements	9	3.2	1.1
Can Work with a Deadline	6	3.0	1.1
Willing to Learn Regulatory Practices	6	3.0	1.1

*4 = Strongly Agree, 3 = Agree, 2 = Disagree, 1 = Strongly Disagree

Round 3

Using results and recommendations from the Delphi expert panel review of the 40 proposed functional areas in Round 2, the researchers combined the areas into seven functional areas and titled as follows: Food Safety and Sanitation, Workplace and Employee Safety, Equipment Use and Care, Food Production, Program Regulations and Accountability or USDA Meal Program Requirements, Teamwork and Communication, and Personal Characteristics. (See Figure 2.)

Figure 2

Proposed Functional Areas for School Nutrition Assistants/Technicians Identified After Phase I Round 3

Proposed Functional Areas (Initial Functional Area Items from Table 2 in Parentheses.)	
1. Food Safety and Sanitation (1–4, 35, 37)	6. Teamwork and Communication (30, 32, 34, 37)
2. Workplace and Employee Safety (5, 35, 37)	7. Personal Characteristics (32–33, 38–40)
3. Equipment Use and Care (6–7, 35, 37)	
4. Food Production (8–13, 35, 37)	
5. Program Regulations and Accountability or USDA Meal Program Requirements (14–29, 31, 35–37)	

Phase II: Face-to-Face Work Groups

Over a period of two days, expert work group participants (n=17) reviewed the wording of draft knowledge and skill statements and 1) classified the statements into one of the seven functional areas, 2) came to an agreement on the knowledge and skill statements for each functional area, 3) identified gaps that needed to be addressed, and 4) grouped similar statements within each functional area to create competencies. The participants decided to combine the Teamwork and Communication functional area with the Personal Characteristics functional area. This was surprising since these two functional areas are distinctly different but the researchers did not change what the participants had decided upon. Also, they changed the order of the functional areas. The results of the face-to-face work groups are listed below. The functional area is centered in bold text, with the competencies presented on the left and the knowledge and skill statements bulleted.

EQUIPMENT USE AND CARE

Selection and Operation

- Selects optimal foodservice equipment for the food product being prepared.
- Knows correct procedures for safely operating and maintaining foodservice equipment.
- Uses small foodservice equipment (such as serving utensils and knives) appropriately.
- Demonstrates ability to proficiently operate a cash register, calculator, and/or computerized POS system and accurately make a change.

Cleaning and Sanitation

- Knows and practices correct sanitation procedures and uses appropriate chemicals when sanitizing foodservice equipment and cleaning the facility.
- Maintains small (such as serving utensils and knives) and large foodservice equipment in a clean, organized, and sanitary condition.

Maintenance and Repair

- Routinely monitors foodservice equipment to ensure that it is maintained in good working order.
- Knows and adheres to policies and procedures regarding foodservice equipment repair.
- Demonstrates ability to take apart and re-assemble assigned foodservice equipment.

FOOD PRODUCTION

Units and Measures

- Knows basic math related to preparation/production and service.
- Knows units of measurement (pound, cup, etc.) used in preparation/production.
- Ensures proper units of measurement are used correctly in food preparation/production (volume and weight).

Pre-Preparation

- Reviews menu and production records for the following day to ensure needed ingredients are available, verifies food items are thawed, and suggests menu substitutions, as appropriate.
- Completes advance food preparation for next day, when necessary.
- Assembles food, supplies, and utensils necessary to prepare recipes efficiently.

Preparation and Production

- Knows and follows basic food preparation/production techniques for large and small quantities.
- Knows the importance of and follows production/work schedules to meet established deadlines.
- Understands, utilizes, and complies with production records and standardized recipes.
- Assists with all phases of preparation/production in a timely, safe, and sanitary manner.
- Prepares meals for special diets according to recipes or other instructions, as provided.
- Cooks food using batch cooking methods, when appropriate, to maintain food quality.

Quality Control

- Knows the importance of monitoring food quality.
- Evaluates products to ensure food quality standards are met.
- Reports amount of plate waste from returned trays.

Holding and Serving

- Understands and demonstrates proper portion control.
- Knows and follows standards for holding and serving food to maintain food quality.
- Knows the importance of and maintains the presentation of the serving line and dining room during the meal period.
- Sets up and replenishes serving lines to maintain quality standards for the presentation of foods.
- Assures appropriate quantity of hot and cold food item portions are prepared, organized, and served/distributed according to established procedures.

Inventory Control

- Knows importance of and follows procedures for maintaining an accurate inventory system.
- Knows and utilizes First-In, First-Out (FIFO) when managing inventory.
- Follows procedures for checking and documenting quantity and quality of items received.
- Follows procedures for removing food and supplies from storage areas.
- Assists in taking physical inventory of food supplies to determine needed quantities for ordering.

FOOD SAFETY AND SANITATION

General Food Sanitation and Safety

- Knows safety standards and sanitation practices used in SN operations.
- Knows and follows all district, local, State, and Federal safety, sanitation, and health code requirements for foodservice establishments.
- Knows and follows standard operating procedures to prevent cross-contamination, foodborne illness, and infection.
- Assists with meal clean-up as directed.
- Follows established procedures for safely storing, disposing of, and/or donating leftover food from meals.
- Follows established procedures to maintain an effective pest control system.

Time and Temperature Control and Monitoring

- Knows the importance of time and temperature relationships (e.g., temperature danger zone).
- Knows how to use and calibrate a food thermometer.
- Follows procedures of time and temperature controls.
- Follows procedures to record daily temperatures of foodservice equipment and storage areas.
- Follows procedures to maintain proper temperatures of food during delivery.
- Checks temperatures of menu items on serving line and reports deviations for corrective action.

Receiving and Storage

- Knows and follows safety procedures for receiving food and supplies.
- Understands procedures for receiving and storing food and supplies to maintain food safety.

PERSONAL CHARACTERISTICS

General Personal Characteristics

- Follows district procedures for all personnel matters.
- Knows and follows established policies for personal hygiene and grooming, including dress, appearance, and personal habits.
- Complies with all School Board policies, State and Federal regulations, and School Nutrition handbook.
- Uses school/district resources (i.e., time, supplies, service, technology, etc.) in an ethical manner.
- Maintains confidentiality regarding school and workplace matters.

Communication

- Knows methods of effective oral and written communication.
- Knows the lines of communication within the school and district, including chain of authority and levels of job responsibilities.
- Possesses the ability to positively resolve conflict.

Customer Service

- Uses a caring approach when interacting with students.
- Provides positive, professional, and friendly customer service.
- Demonstrates the ability to handle customer complaints effectively, and according to policy and/or procedures.
- Knows the importance of and provides timely feedback on student preferences.

Basic Math and Technology Skills

- Demonstrates ability to add, subtract, multiple, and divide accurately.
- Demonstrates basic computer skills.

Willingness to Accept Supervision

- Demonstrates willingness and ability to follow oral and written instructions.
- Knows the importance of giving and receiving constructive feedback.
- Follows the chain of command.
- Demonstrates a willingness to be flexible.

Attitude and Judgement

- Maintains a positive attitude and creates a positive image for the SN program.
- Uses a professional manner when interacting with co-workers, school staff, students, and others.
- Uses sound methods of problem-solving and decision-making.
- Exercises independent judgment and initiative to resolve problems.

Ability to Work Independently

- Demonstrates the ability to interpret detailed written instructions, such as schedules and recipes.
- Performs work-related activities efficiently, with limited supervision.
- Demonstrates an ability to work under the pressure of deadlines and interruptions.
- Knows the importance of and demonstrates the ability to work with a diverse school community.
- Demonstrates ability to organize and establish priorities to complete job responsibilities.
- Knows when decisions can be made independently or when consultation with a supervisor is needed.
- Uses chain of command to report potential problems or unusual events.

Teamwork

- Knows the importance of teamwork and cooperation.
- Actively engages in educational activities to promote the SN program.
- Participates in opportunities for improving professional status as a member of the education team.
- Assists in training personnel, as directed.

- Knows the importance of and demonstrates an ability to effectively mentor coworkers.
- Establishes and maintains cooperative and effective working relationships with others.
- Assists other staff, as needed.

Willingness to Learn and to Improve Job Skills

- Attends and participates in required job-related training.
- Displays willingness to learn new skills and to improve job knowledge.
- Applies knowledge and/or skills from training activities to performance on the job.

USDA MEAL PROGRAM REQUIREMENTS

Basic Program Requirements

- Knows the Federal, State, local, and district policies, rules, and regulations regarding the SN program (i.e., USDA meal pattern and reimbursable meals).
- Knows USDA meal component requirements for a reimbursable meal.
- Knows the importance of and preserves the confidentiality of students receiving free and reduced-price meals.
- Maintains school nutrition vending in accordance with program procedures.
- Knows basic principles of nutrition as applies to school-age children.

Reports and Records

- Knows the importance of and maintains accurate records in compliance with Federal, State, and local regulations.
- Counts money, balances cash drawer correctly, and completes cashier reports, with all transactions properly recorded.
- Reports accurately the amount of food used and leftover food.

Point of Sale

- Demonstrates ability to identify a reimbursable meal.
- Knows and follows the collection and recording procedures approved for point of service at the school.
- Serves menu items to students and staff or visitors according to established guidelines.

WORKPLACE AND EMPLOYEE SAFETY

Work Environment

- Knows district emergency and safety policies and procedures.
- Knows the importance of and demonstrates proper utilization and storage of chemicals and Safety Data Sheets.
- Maintains clean and organized work and storage areas.

- Knows the location of and follows procedures for use of fire extinguishers and/or fire suppression system.
- Follows established procedures related to the protection of the environment.

Personal Safety

- Follows safety rules for employees, equipment, and facilities.
- Knows and follows accident prevention practices, first aid procedures, and accident/injury reporting procedures.
- Reports accidents and potential safety hazards according to established procedures.

After the face-to-face work groups categorized and discussed the CKS statements, expert work group participants deliberated and decided to generalize the knowledge and skill statements, thus reducing the number from 150 to 36, with the rationale that the final version would be easier to use at the local level. The participants chose the most important knowledge and skill statements that represented the SN assistant/technicians' job responsibilities.

Phase III: Electronic Review of CKS Draft

All five of the invited SN directors from four USDA regions independently reviewed an electronic draft of the CKS via email. (See Table 4.) They commented on the wording and placement of the knowledge and skill statements and recommended minor revisions for these, with the statements revised accordingly.

Table 4

Program Characteristics of Phase III Expert Electronic Panel Members (n=5)

Characteristics	Frequency	Percentage
Position in district		
School Nutrition Director	5	100
Student enrollment in district		
≤ 1,999	1	20
2,000 to ≤ 9,999	4	80
10,000 to 19,999	0	0
20,000 to 29,999	0	0
≥ 30,000	0	0
USDA region		
Mountain Plains	0	0
Midwest	0	0
Southeast	1	20
Southwest	1	20
Northeast	1	20
Mid-Atlantic	0	0
Western	2	40
Percentage of students eligible for free- and reduced-price meals		
0 – 19%	0	0
20 – 39%	1	20
40 – 59%	0	0
60 – 79%	1	20
≥ 80%	3	60

Phase III: Face-to-Face Work Group Meeting

Seven SN directors from four USDA regions who had not participated in previous phases attended the work group meeting. They developed an online national survey based on the revised CKS to determine the current training and professional development needs of SN assistants/technicians at district and national levels. They also identified a framework for needed interactive online competency-based templates to support SN managerial staff in human resources-related activities as they pertain to SN assistants/technicians. The templates include job descriptions, job interviews, mentoring guides and performance appraisals. These templates were developed by Applied Research Division staff using recommendations from the work group and are included in the CKS resource.

Phase III: Review of CKS Draft Resource

The draft CKS resource was formatted and sent via email to 25 of the Delphi and expert panel members from Phases I and II. See Appendix J. Ten SN professionals responded with their comments and suggestions. The program characteristics from the 10 respondents are shown in Table 5. All respondents agreed that the resource was organized well and easy to read, yet they had additional comments and suggestions for minor revisions. The resource was revised accordingly.

Table 5*Program Characteristics of Phase III CKS Draft Resource Expert Panel Member Reviewers (n=10)*

Characteristics	Frequency	Percentage
Position in district		
School Nutrition Director	9	90
School Nutrition Supervisor	1	10
Student enrollment in district		
≤ 1,999	1	10
2,000 to ≤ 9,999	1	10
10,000 to 19,999	6	60
20,000 to 29,999	1	10
≥ 30,000	1	10
USDA region		
Mountain Plains	2	20
Midwest	1	10
Southeast	3	30
Southwest	2	20
Northeast	1	10
Mid-Atlantic	0	0
Western	1	10
Percentage of students approved for free and reduced-price meals		
0–19%	1	10
20–39%	0	0
40–59%	3	30
60–79%	2	20
≥80%	4	40

Phase III: Review by Researchers

Researchers compared the 2021 CKS resource to the 2006 CKS resource. (See Table 6.) Both have six functional areas, but the 2021 CKS has 36 knowledge and skill statements while the 2006 resource has 150. The 2006 resource categorized the knowledge and skill statements by “when hired” and “after training,” with only 37 categorized as “when hired.” The 2021 CKS does not distinguish. The consensus was that the 2021 resource would be more user-friendly due to having fewer knowledge and skill statements.

Table 6

Comparison of the 2021 CKS Resource with the 2006 CKS Resource

	2021 Version	2006 Version
Functional Areas	Equipment Use and Care Food Production Food Safety and Sanitation Personal Characteristics USDA Meal Program Requirements Workplace and Employee Safety	Equipment Use and Care Food Production Sanitation, Safety, and Security Professional Excellence Program Regulations and Accountability Customer Service
Number of Competencies	15	12
Number of Knowledge and Skill Statements	36	150

Phase III: Training Needs Survey

The training needs survey based on the updated CKS resource was pilot tested and reviewed by 13 SN directors, and some of them were participants in previous phases. The respondents recommended formatting and wording changes. The survey is available through the Qualtrics software and ready for use once ICN is given authorization from USDA. Due to the COVID-19 pandemic, USDA directed ICN to delay distribution so that SN professionals would not be burdened with additional time-consuming responsibilities.

CONCLUSIONS AND RECOMMENDATIONS

Research Study Conclusions

This research project identified the current functional areas, competencies, knowledge, and skills needed by SN assistants/technicians to be effective on the job through a rigorous, multi-phased approach. This three-phased research was conducted sequentially, with each phase informing the next. SN directors (n=41) from all seven USDA regions representing districts of various sizes along with ICN researchers and staff participated in developing and confirming the six functional areas, 15 competencies, and 36 knowledge and skill statements on the updated CKS resource. This update of the 2006 CKS for SN assistants/technicians is streamlined with a reduction in knowledge and skill statements from 150; therefore, it should be more user-friendly for SN professionals.

Two of the functional areas, food production along with food safety and sanitation, are aligned with previous research with SN assistants/technicians that shows training increases confidence. One study found SN assistants/technicians who received training about promoting and processing local produce were more confident ($p < .001$) in their abilities to know where it was from, how to prepare the fruit or vegetable, and incorporate the item into recipes (Notham & Stokes, 2018). Another study identified the importance of using employee beliefs when training about food safety practices, including proper handwashing and checking foods with thermometers (Alcorn et al., 2019). Stephens and Byker Shanks (2015) found a lack of knowledge regarding effective SN training as well as a lack of accessible and validated evaluation tools. Their conclusions can be directly applied to training for SN assistants/technicians with recommendations that future research explores time-efficient and cost-effective training techniques and strategies for SN personnel.

The updated CKS resource developed from this project (shown in Appendix K) is available on the ICN website and can be useful to SN directors and managers in interviewing, training, mentoring, and evaluating SN assistants/technicians. The customizable tools within the CKS resource that were developed as part of this project include a job description template (as a fillable form), a job interview template, an individual mentoring plan form for use by SN managers, and a competency-based performance appraisal (as a fillable form). Each tool has detailed instructions on its use and on how to complete the document.

The findings of this research will assist ICN, USDA, State agencies, and training professionals in developing additional appropriate professional development resources for SN assistants/technicians. These results can provide the structure for competency-based training modules that focus on the identified six functional areas. The SN professionals can use the knowledge and skill statements to guide the development of initial training customized for their operational needs, as well as for later in-service training, for SN assistants/technicians.

A well-trained SN staff is the foundation for a successful SN program. Training should address gaps in the necessary knowledge, skills, and abilities of the staff. Although job requirements for an SN assistant/technician may differ from state to state, and even from school district to school district, the findings from this research project provide needed information for

defining the role an effective SN assistant/technician plays in the operation of an excellent SN program.

Institute of Child Nutrition Training Courses to Support Competencies, Knowledge, and Skills

The ICN has many free training resources to support SN assistants/technicians in meeting identified competencies, knowledge, and skills. Some of these are targeted to persons providing training, such as directors or managers, while others are for self-taught SN professionals. The No Time to Train: Short Lessons for SN Assistants series (<https://theicn.org/school-nutrition-programs/>) provides 34 short lessons for managers/instructors that are targeted to SN assistants/technicians on topics such as batch cooking, food production records, and taste testing. The format for No Time to Train lessons includes an overview, preparation checklist, lesson at-a-glance with a timeline for conducting the lesson, reference, and instructor's script. The manager/instructor uses the script to present each lesson to participants. The script gives directions to the manager/instructor—DO, SAY, ASK, and LISTEN—to deliver each lesson and an activity is also included. No special audiovisual or electronic equipment is needed to conduct the lessons, so these can be presented in the cafeteria, media center, or classroom.

The ICN also has an extensive library of free, self-paced online courses that provide an excellent method of meeting the identified competencies, knowledge, and skills. The courses are available at <https://theicn.docebosaas.com/learn>. Table 7 shows selected examples of current ICN online courses available to assist SN assistants/technicians in meeting the competencies, knowledge, and skills identified in the CKS resource. In addition, these are coded to meet School Nutrition Association and USDA Professional Standard requirements.

Table 7

Suggested ICN Self-Paced Online Courses (In Red) That Support Competencies, Knowledge, and Skills of Effective School Nutrition Assistants/Technicians 2021

Functional Area: Equipment Use and Care	
Competencies	Knowledge and Skill Statements
1.1. Selection and Operation	1.1a. Demonstrates the ability to select the correct foodservice equipment for the food product being prepared. Culinary Techniques Series (Introduction, Preparing Fruits, Vegetables, Salads, Preparing Entrée Items, Preparing Soups, Eggs, Dairy, Sauces, Preparing Breads and Baked Goods, Using Seasonings)
1.2. Maintenance	1.2a. Understands the importance of routinely monitoring foodservice equipment and reports issues to supervisor.
	1.2b. Demonstrates ability to take apart and re-assemble assigned foodservice equipment as appropriate for maintenance and repair.
Functional Area: Food Production	
Competencies	Knowledge and Skill Statements
2.1. Units and Measures	2.1a. Knows units of measurement (pound, cup, etc.) used in preparation/production and demonstrates the ability to make appropriate conversions and sizing adjustments as needed. Basic Culinary Math Series: Operations with Whole Numbers, Operations with Fractions, Operations with Decimals, Measurement, Conversions, Scaling Recipes, Calculating Food Cost Recipe Adjustments

(Table 7 continues)

(Table 7 continued)

Suggested ICN Self-Paced Online Courses (In Red) that Support Competencies, Knowledge, and Skills of Effective School Nutrition Assistants/Technicians 2021

Functional Area: Food Production (Continued)	
Competencies	Knowledge and Skill Statements
2.2. Preparation and Production	2.2a. Knows and demonstrates basic food preparation techniques used in producing large quantities of food items. <i>Culinary Techniques Series (Introduction, Preparing Fruits, Vegetables, Salads, Preparing Entrée Items, Preparing Soups, Eggs, Dairy, Sauces, Preparing Breads and Baked Goods, Using Seasonings)</i>
	2.2b. Knows and demonstrates the ability to prepare food products following standardized recipes. <i>FBG Module 2: Recipe Analysis Workbook (RAW)</i>
	2.2c. Knows and demonstrates the ability to prepare meals for special diets according to recipes or other instructions provided by manager or supervisor. <i>Food Allergies in SNPs—General Food Allergies Food Allergies in SNPs—Reading Food Labels</i>
	2.2d. Understands the importance of and demonstrates proper portion control. <i>Portion Control</i>
2.3. Quality Control	2.3a. Knows the importance of and demonstrates proper procedures for monitoring and evaluating all foods (received and produced) to ensure quality standards are achieved.
	2.3b. Knows the importance of reporting quality issues to appropriate individuals and demonstrates the ability to identify plans to address the issues.
	2.3c. Demonstrates proper procedures for monitoring plate waste and reporting observations to the supervisor.
2.4. Inventory Control	2.4a. Knows the importance of and demonstrates proper procedures for First-In, First-Out (FIFO) when managing inventory. <i>Inventory Management – Controlling Cost</i>
	2.4b. Demonstrates proper procedures for taking physical inventory of food supplies to determine needed quantities for ordering. <i>Inventory Management – Controlling Cost</i>

(Table 7 continues)

(Table 7 continued)

Suggested ICN Self-Paced Online Courses (In Red) that Support Competencies, Knowledge, and Skills of Effective School Nutrition Assistants/Technicians 2021

Functional Area: Food Safety and Sanitation	
Competency	Knowledge and Skill Statements
3.1. Food Safety and Sanitation	3.1a. Knows the importance of and demonstrates appropriate personal hygiene practices for SN operations. Best Practices in SFSP – Personal Hygiene
	3.1b. Knows the importance of and demonstrates proper procedures for safe food handling. Best Practices in SFSP – Time and Temperature Control Food Safety in Schools Introduction to HACCP for SNPs
	3.1c. Knows the importance of and demonstrates proper procedures for cleaning and sanitizing food contact surfaces. Best Practices in SFSP – Cleaning and Sanitizing Norovirus for Schools
Functional Area: Personal Characteristics	
Competency	Knowledge and Skill Statements
4.1. General	4.1a. Demonstrates willingness to be flexible. School Nutrition Staff: You Are a Team
	4.1b. Knows the importance of and demonstrates proper procedures for maintaining confidentiality regarding school and workplace matters.
	4.1c. Demonstrates ability to work under the pressure of deadlines and with interruptions. Effective Goal Setting Using SMART Goals
	4.1d. Knows the importance of and demonstrates the ability to work with a diverse school community. Focus on the Customer for School Nutrition Managers Civil Rights in Child Nutrition Programs
4.2. Communication	4.2a. Demonstrates effective oral and written communication. Presentation Fundamentals – Tips for New Speakers Adult Learning
	4.2b. Demonstrates appropriate uses of lines of communication within the school and school district, including chain of authority and levels of job responsibilities. Communication Skills for Managers
	4.2c. Demonstrates the ability to positively resolve conflict. Human Resource Series – Dealing with Conflict in the Workplace

(Table 7 continues)

(Table 7 continued)

Suggested ICN Self-Paced Online Courses (In Red) that Support Competencies, Knowledge, and Skills of Effective School Nutrition Assistants/Technicians 2021

Functional Area: Personal Characteristics (Continued)	
Competencies	Knowledge and Skill Statements
4.2. Communication	4.2d. Demonstrates a professional manner when interacting with co-workers, school staff, students, and others. <i>School Nutrition Staff: You Are a Team, Coaching</i>
4.3. Customer Service	4.3a. Understands the importance of being responsive to student preferences and requests and demonstrates timely and helpful feedback to supervisor regarding these interactions. <i>Focus on the Customer for School Nutrition Staff</i>
4.4. Basic Math and Technology Skills	4.4a. Demonstrates ability to add, subtract, multiply, and divide. <i>Basic Culinary Math: Conversions</i> <i>Basic Culinary Math: Calculating Food Cost</i> <i>Basic Culinary Math: Operations with Decimals</i> <i>Basic Culinary Math: Operations with Whole Numbers</i>
	4.4b. Demonstrates the ability to utilize a computer to check email.
4.5. Judgement	4.5a. Understands the importance of following the chain of command to report potential problems or unusual events.
Functional Area: USDA Meal Program Requirements	
Competencies	Knowledge and Skill Statements
5.1. Reports and Records	5.1a. Understands and demonstrates proper procedures for handling money and operating the point of sale/cash register.
	5.1b. Knows meal pattern requirements for a reimbursable meal. <i>Meal Patterns</i>
	5.1c. Understands and demonstrates proper procedures for completing production records. <i>Production Records</i>

(Table 7 continues)

(Table 7 continued)

Suggested ICN Self-Paced Online Courses (In Red) that Support Competencies, Knowledge, and Skills of Effective School Nutrition Assistants/Technicians 2021

Functional Area: Workplace and Employee Safety	
Competencies	Knowledge and Skill Statements
6.1. Work Environment	6.1a. Knows the importance of and demonstrates proper procedures for maintaining clean and organized work and storage areas. Food Safety in Schools
	6.1b. Knows the importance of and demonstrates proper procedures related to the protection of the environment.
	6.1c. Knows the importance of and demonstrates proper procedures for using Safety Data Sheets.
6.2. Employee Safety	6.1a. Demonstrates proper procedures for lifting and carrying.

Education and Training Implications for School Nutrition Assistants/Technicians

This research project updated the competencies, knowledge, and skills needed for effective SN assistants/technicians. The researchers recommend the following:

- Develop additional training modules to address gaps in each of the six functional areas: Equipment Use and Care, Food Production, Food Safety and Sanitation, Personal Characteristics, USDA Meal Program Requirements, and Workplace and Employee Safety.
- Explore the development of training materials that are cost-effective, time-efficient, and at appropriate literacy levels that address the current needs of SN assistants/technicians.
- Develop accessible and validated evaluation tools for documenting the training effectiveness of SN assistants/technicians.

REFERENCES

- Alcorn, M., Roberts, K., Sauer, K., Paez, P., & Watkins, T. (2019). Assessing food safety behavior: Salient beliefs of school nutrition employees. *Food Protection Trends*, 39(4), 305–316.
- Institute of Child Nutrition. (2016). *Competencies, knowledge, and skills for child care providers in CACFP operations*. University, MS: Author
- Institute of Child Nutrition. (2018). *Competencies, knowledge, and skills for school nutrition managers*. University, MS.
- National Food Service Management. (2006). *Competencies, knowledge, and skills of effective school nutrition assistants and technicians*. University, MS.
- National Food Service Management. (2010). *Competencies, knowledge, and skills for district-level school nutrition professionals in the 21st Century*. University, MS.
- National Food Service Management. (2014). *Competencies, knowledge, and skills for state agency child nutrition professionals in the 21st Century*. University, MS: Author
- National Center for Education Statistics. (n.d.). *Urban-centric locale codes*
<https://nces.ed.gov/programs/edge/Geographic/LocaleBoundaries>
- Notham, A. & Stokes, N. (2018). Hourly school nutrition employee confidence with local, farm-fresh produce. *Journal of the Academy of Nutrition and Dietetics*, 118(9), A-55.
- Sauer, K., Patten, E., Roberts, K. & Schartz, M. (2018). Management of food allergies in schools. *The Journal of Child Nutrition and Management*, 42(2).
https://schoolnutrition.org/uploadedFiles/5_News_and_Publications/4_The_Journal_of_Child_Nutrition_and_Management/Fall_2018/Fall2018-Management-of-Food-Allergies-in-Schools.pdf
- Stephens, L. & Byker Shanks, C. (2015). K–12 school food service staff training interventions: A review of the literature. *Journal of School Health*. 85(12): 825-832.
- Stokes, N. & Arendt, S.W. (2017) Identifying farm to school barriers and keys to success: Perceptions of hourly employees. *Journal of Hunger and Environmental Nutrition*, 12 (4), 495–515. <http://dx.doi.org/10.1080/19320248.2016.1157544>
- United States Department of Agriculture, Food and Nutrition Service. (2020). *Guide to Professional Standards for School Nutrition Programs*. https://fns-prod.azureedge.net/sites/default/files/resource-files/Professional_Standards_Guide.pdf

APPENDIX A

Site Visit Follow-Up Email to School Nutrition Directors and Data Collection Tool

Hi _____,

Thanks again for agreeing to let me visit your school nutrition program as part of a project to identify the competencies, knowledge, and skills needed for effective school nutrition assistants/technicians. If it is okay with you, I would like to visit sometime between January and February of 2019.

The site visit should take 1–2 days and include the following:

- Observation of school nutrition assistant/technician activities (throughout the day)
- Interviews and/or group meetings with you and your staff (10–30 minutes)
 - Managers (2–3)
 - SN assistants/technicians (6–12)

Please provide me with 2–3 sets of dates that would be most convenient for me to visit between January and February of 2019.

Thank you so much; I look forward to visiting your program!

Sincerely,

Observation, Interview, and Focus Group Form for Site Visits

The following information will be collected at each site visit based on observation and an interview with SN assistants/technicians.

Demographics:

City: _____ State _____ USDA Region _____

Percentage of students approved for free- and reduced-price meals _____

Enrollment _____

Task Observation:

1. Briefly describe the operational responsibilities and time spent on each for the following tasks:
 - Food Production
 - Sanitation, Safety, and Security
 - Customer Service
 - Program Regulations and Accountability
 - Financial Management
 - Equipment Use and Care
2. Briefly describe the time spent setting and ensuring high standards are met in the following areas:
 - Implementing meal standards according to USDA regulations
 - Communicating requirements for fundraising that includes selling food items
 - Certifying compliance with meal count procedures
 - Implementing and monitoring food safety procedures
 - Following employee labor policies
 - Attendance at professional development training
 - School wellness activities

Interview Questions:

1. What do you feel are the top three responsibilities of SN assistants/technicians?
2. Which job responsibility do SN assistants/technicians spend the most time performing, on average?
3. What job responsibility or task is an SN assistant's/technician's greatest challenge?
4. If you could sort your job responsibilities as an SN assistant/technician into groups or functional areas, what would be the top five or six areas?

APPENDIX B

Phase I, Round 1 Invitation, Questionnaire

Phase 1, Round 1 Invitation, Questionnaire

Thank you for agreeing to participate on the Institute of Child Nutrition, Applied Research Division's expert panel to identify the competencies, knowledge, and skill statements needed for effective school nutrition (SN) assistants/technicians in the current SN environment. You are one of 14 expert panel members.

To begin this study, we are using a 3–4 round modified Delphi Technique for the 14 expert panel members to come to agreement regarding the groupings of job responsibilities or functional areas that are performed by SN assistants/technicians. The Delphi Technique will consist of three or more successive questionnaires sent to you by email.

The Round 1 questionnaire, which is included as an attachment with this email, includes open-ended questions asking you to list the functional areas/broad groupings that you think best summarize the responsibilities of SN assistants/technicians. The results of Round 1 will be used to create the questionnaire in Round 2. In Round 2, you will be asked to rate the functional areas indicating your level of agreement with the appropriateness of each. The same procedure will be followed in developing the third and fourth (if necessary) round questionnaires. With each successive round, you will be provided a summary of the previous round questionnaire, and you will have another opportunity to indicate your agreement with the functional areas.

Each questionnaire should take approximately 20–30 minutes to complete. It is essential that you respond to all questionnaires as your opinions are vital to the development of the functional areas that will be used for the remainder of the research project. With your prompt return of each questionnaire, all rounds can be completed within a short time period.

Round 1 – Delphi Questionnaire for School Nutrition Assistants/Technicians

An SN assistant's/technician's job consists of responsibilities in several **functional areas**, which will be identified by this panel. As depicted in the figure below, a functional area contains one or more **competency statements** which are each supported by **knowledge** and **skill** statements needed to perform that competency.

Definitions Used in This Research Project:

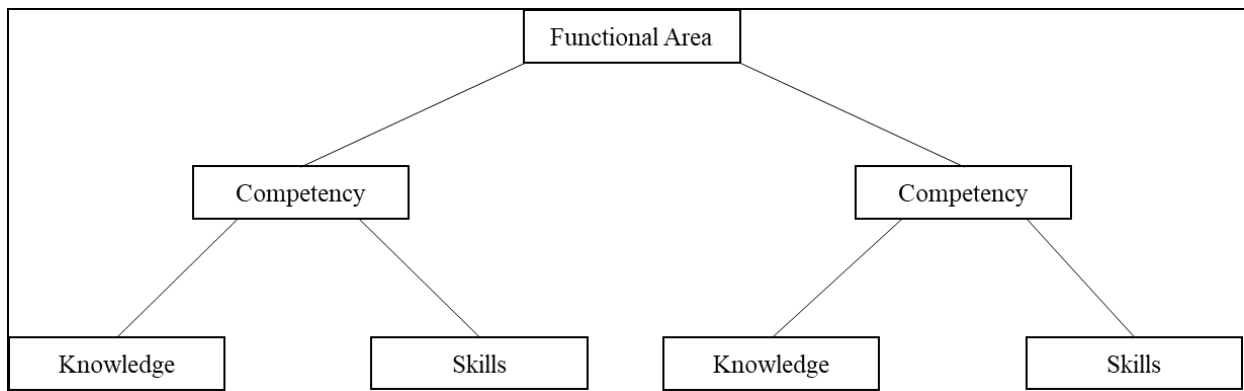
School nutrition assistants/technicians are the foodservice employees who work at the local school cafeteria under the direction of an SN manager.

Functional areas are the broad groupings or divisions of job responsibilities that are performed by managers within the local SN operation.

Competencies are underlying characteristics within each functional area that lead to successful performance. They may include knowledge and skills as well as various levels of motivation.

Knowledge is the information a person has in specific content areas that is necessary for successful performance in a competency area.

Skills are the abilities to perform certain physical and/or mental tasks that are necessary for successful performance in a competency area.



Section I. Functional Areas

Directions: Please use your knowledge and experience to provide the following information.

- If you could sort the job responsibilities of an SN assistant/technician into groups or functional areas, what would these groups be? List below in the space provided your identified broad groupings/functional areas of job responsibilities of SN assistants/technicians.
- Provide a brief description or definition of each functional area you have identified.
- There are no restrictions on the number of functional areas—feel free to list either more or less than 10. You can add more pages if you so desire.

Functional Area	Definition
1) _____	_____
2) _____	_____
3) _____	_____
4) _____	_____
5) _____	_____
6) _____	_____
7) _____	_____
8) _____	_____
9) _____	_____
10) _____	_____

Section II. Demographic Information

This section seeks to learn more about you. Please answer the following questions by **either highlighting or underlining your desired response**.

How long have you worked in SN programs?

1. Less than one year
2. 1 to 5 years
3. 6 to 10 years
4. 11 to 15 years
5. 16 to 20 years
6. Greater than 20 years

What is your certification/credentialed status? (Highlight/underline all that apply.)

1. No certifications/credentials
2. School Nutrition Association Certification Level 1
3. School Nutrition Association Certification Level 2
4. School Nutrition Association Certification Level 3
5. ServSafe® Certified
6. Other

What is your **highest** level of education?

1. High school diploma
2. Associate degree, major _____
3. Bachelor's degree, major _____
4. Some graduate credits, area _____
5. Master's degree, major _____
6. Graduate hours beyond master's, area _____
7. Doctoral hours, major _____
8. Other, specify type and area _____

Please save this document and email it as an attachment to Keith.Rushing@usm.edu by [INSERT DATE].

APPENDIX C

Phase I, Round 2 Questionnaire

Instructions:

1. Review the definition of Functional Areas (in blue below):

Functional areas are the broad groupings or divisions of job responsibilities that are performed by directors/supervisors within the local school nutrition operation. These categories serve as an umbrella for all job responsibilities that occur on a daily, weekly, seasonal, or yearly basis.

2. Review the summary of Functional Areas and Definitions from Round 1. (See the **Round 1 Summary** document.)
 - There was a total of 40 possible Functional Areas with corresponding definitions provided by the expert panel members, which are listed in the three-page summary.
 - Similar Functional Areas were grouped together.
 - Duplicate Functional Areas (worded exactly the same) were omitted.
3. For each of the Functional Areas identified in round 1 and listed in **Column A**, please provide the following information in columns identified:
 - **Column B:** Rate your level of agreement with the item as a **Functional Area** for the job of a school nutrition assistant/technician, using the following scale:
 - 4 = **Strongly Agree**
 - 3 = **Agree**
 - 2 = **Disagree**
 - 1 = **Strongly Disagree**
 - **Column C:** If the agreement rating you provided in Column B was 2 or 1 (disagree or strongly disagree), describe your reason.
 - **Column D:** In the interest of limiting the total number, please consider combining functional areas when appropriate. Definitions panel members provided for each potential Functional Area are listed in the **Round 1 Summary** document. Type yes or no. If yes, list the number of the Functional Area(s) to combine.
 - **Column E:** Propose suggestion for the final name of the **Functional Area** or a new **Functional Area** if you recommend combining with another. Type your response in the space provided.

A	B	C	D	E
<p>Listed below are all the potential Functional Areas provided by the expert panel members in Round 1.</p> <p>Descriptions of each are provided on the <i>Round 1 Summary</i></p>	<p>Your agreement rating with the Function Area for the job of a SN assistant/technician.</p> <p>4 3 2 1</p>	<p>Reason for rating in column B (If Any)</p>	<p>Could this area be combined with another area?</p> <p>Yes/No</p> <p>List the Functional Area(s) to Combine</p>	<p>Suggestions for naming this Functional Area</p>
1. Food Safety and Sanitation				
2. Food Safety (HACCP)				
3. Sanitation				
4. Sanitation/ Cleaning				
5. Safe Work Environment/ Employee Safety				
6. Equipment Use and Care				
7. Cleaning and Equipment Maintenance				
8. Cook/Baker				
9. Food Preparation				
10. Cooking				
11. Quantity Foodservice Production				
12. Food Production				
13. Culinary Prep Skills				
14. Server/Serving				
15. Foodservice				
16. Presentation of Food Items				
17. Point of Sale				
18. Cashier/Clerk/ Cash Handling				
19. Food Sales				
20. Financial				

Competencies, Knowledge, and Skills of Effective School Nutrition Technicians/Assistants

21. Basic Computer Skills				
22. Customer Service Skills				
23. USDA Meal Program Requirements/ Program Regulations and Accountability				
24. Receiving/ Stocking				
25. Inventory Replenishment				
26. Food and Inventory Maintenance				
27. Inventory Control/ Management				
28. Record Keeping/ Documentation				
29. Preparing Reports				
30. Communication and Teamwork				
31. Program Promotion				
32. Communication Skills				
33. Manageability				
34. Can work on a team/Team Membership				
35. Quality Control				
36. Food Distribution				
37. Training and Self Improvement				
38. Physical Requirements				
39. Can work with a deadline				
40. Willing to learn regulatory practices				

APPENDIX D

Phase I Round 3 Questionnaire

Round 3 Functional Areas Questionnaire

Round 2 Summary (for review before completing Round 3 Questionnaire)

Part One (A, B, C): Nine work group members completed Round 2 (N=9).

A	B	C
Original list of potential Functional Areas	Agreement ratings <i>provided by work group participants</i> <ul style="list-style-type: none"> • 4=Strongly Agree • 3=agree • 2=disagree • 1=strongly Disagree <p>If the same agreement rating was provided more than once, the number of times the agreement rating was provided is listed in parentheses and highlighted in yellow below. The agreement ratings are provided in numerical order below.</p>	Reason for rating of ≤ 2 in column B <i>provided by work group participants</i>
1. Food safety and Sanitation	3 4 (8)	
2. Food Safety (HACCP)	2 (2) 3 (2) 4 (5)	Can be combined
3. Sanitation	1 2 3 4 (6)	Can be combined
4. Sanitation/Cleaning	1 2 3 (2) 4 (4)	Can be combined

A	B	C
Original list of potential Functional Areas	<p>Agreement ratings <i>provided by work group participants</i></p> <ul style="list-style-type: none"> • 4=Strongly Agree • 3=agree • 2=disagree • 1=strongly Disagree <p>If the same agreement rating was provided more than once, the number of times the agreement rating was provided is listed in parentheses and highlighted in yellow below. The agreement ratings are provided in numerical order below.</p>	Reason for rating of ≤ 2 in column B <i>provided by work group participants</i>
5. Safe Work Environment/ Employee Safety	3 (4) 4 (5)	Minimize the chance of personal and personnel injury
6. Equipment Use and Care	2 3 (4) 0 (4)	
7. Cleaning and Equipment Maintenance	2 3 (4) 4 (4)	Can be combined
8. Cook/Baker	1 (2) 2 3 (3) 4 (3)	Can be combined Too broad
9. Food preparation	2 3 (3) 4 (5)	Can be combined
10. Cooking	2 (2) 3 (5) 4 (2)	Not essential Can be combined
1. 11. Quantity foodservice production	1 2 (3) 3 (3) 4 (2)	Not essential Can be combined
2. 12. Food Production	1 2 3 (4) 4 (3)	Can be combined
3. 13. Culinary Prep Skills	1 2 (2) 3 (4) 4 (2)	Can be combined
4. 14. Server/Serving	1 2 3 (3) 4 (4)	Can be combined
5. 15. Foodservice	1 3 (3) 4 (5)	Can be combined

Competencies, Knowledge, and Skills of Effective School Nutrition Technicians/Assistants

A	B	C
Original list of potential Functional Areas	<p>Agreement ratings <i>provided by work group participants</i></p> <ul style="list-style-type: none"> • 4=Strongly Agree • 3=agree • 2=disagree • 1=strongly Disagree <p>If the same agreement rating was provided more than once, the number of times the agreement rating was provided is listed in parentheses and highlighted in yellow below. The agreement ratings are provided in numerical order below.</p>	Reason for rating of ≤ 2 in column B <i>provided by work group participants</i>
16. Presentation of Food Items	1 (2) 2 3 (3) 4 (3)	Can be combined
17. Point of Sale	1 3 (3) 4 (5)	Can be combined
18. Cashier/Clerk/Cash Handling	1 3 (3) 4 (5)	Can be combined
19. Food Sales	1 2 3 (3) 4 (4)	Can be combined
20. Financial	1 (2) 2 (2) 3 (2) 4 (3)	Not essential Can be combined
21. Basic Computer Skills	2 3 (3) 4 (5)	Can be combined
22. Customer Service Skills	2 3 (3) 4 (4)	Can be combined
23. USDA Meal Program Requirements/Program Regulations and Accountability	3 (3) 4 (6)	Can be combined
24. Receiving/Stocking	1 2 (3) 3 (3) 4 (2)	Can be combined
25. Inventory replenishment	1 (2) 2 (3) 3 (4)	Can be combined
26. Food and Inventory Maintenance	2 (4) 3 (2) 4 (3)	Can be combined

A	B	C
Original list of potential Functional Areas	<p>Agreement ratings <i>provided by work group participants</i></p> <ul style="list-style-type: none"> • 4=Strongly Agree • 3=agree • 2=disagree • 1=strongly Disagree <p>If the same agreement rating was provided more than once, the number of times the agreement rating was provided is listed in parentheses and highlighted in yellow below. The agreement ratings are provided in numerical order below.</p>	Reason for rating of ≤ 2 in column B <i>provided by work group participants</i>
27. Inventory Control/Management	2 (4) 3 (3) 4 (2)	Can be combined
28. Record Keeping/Documentation	1 (2) 2 (2) 3 (2) 4 (3)	Can be combined
29. Preparing Report	1 (2) 3 (7)	Can be combined
30. Communication and Teamwork	2 (2) 3 (2) 4 (5)	Can be combined
31. Program Promotion	2 3 (4) 4 (4)	Can be combined
32. Communication Skills	2 (2) 3 (3) 4 (4)	Can be combined
33. Manageability	2 (2) 3 (3) 4 (4)	Can be combined
34. Can work on a team/ Team Membership	3 (3) 4 (6)	Can be combined
35. Quality Control	2 3 (3) 4 (5)	Can be combined
36. Food Distribution	1 2 (2) 3 (3) 4 (3)	Can be combined
37. Training and Self Improvement	1 2 3 (3) 4 (4)	Can be combined

A	B	C
Original list of potential Functional Areas	<p>Agreement ratings <i>provided by work group participants</i></p> <ul style="list-style-type: none"> • 4=Strongly Agree • 3=agree • 2=disagree • 1=strongly Disagree <p>If the same agreement rating was provided more than once, the number of times the agreement rating was provided is listed in parentheses and highlighted in yellow below. The agreement ratings are provided in numerical order below.</p>	Reason for rating of ≤ 2 in column B <i>provided by work group participants</i>
38. Physical Requirements	1 2 3 (3) 4 (4)	Not essential Can be combined
39. Can work with a deadline	1 (2) 3 (4) 4 (3)	Can be combined
40. Willing to learn regulatory practices	1 (2) 3 (4) 4 (3)	Can be combined

Part Two (D, E) Nine work group members completed Round 2 (N=9)

D	E
List of functional areas to combine <i>provided by work group participants</i> If a combination of Functional Areas was provided more than once, the number of times the combination was provided is listed in parentheses and highlighted in yellow below. The combinations of Functional Areas are provided in numerical order below.	Suggestions for changing the names of Functional Areas <i>provided by work group participants</i> If changing the name of a Functional Area was provided more than once, the number of times the suggestion was provided is listed in parentheses and highlighted in yellow below. The suggestions are listed in alphabetical order below.
1-2 1-2, 24-27 1-4 (4) 1-4,6-7 1-7	<ul style="list-style-type: none"> • Food Safety (HACCP) and Sanitation • Safety and Sanitation • Sanitation and Cleanliness
3-4	
5-7(2) 5, 38 5, 39	<ul style="list-style-type: none"> • Equipment Use and Maintenance • Safe Work Environment • Workplace and Employee Safety
6-7 (2)	<ul style="list-style-type: none"> • Equipment Use and Care
8, 1-9 8-12 8-13 8, 14, 23 8-16 8-13, 16, 35, 36	<ul style="list-style-type: none"> • Food Production • Food Production and Culinary • Food Preparation and Service
9-13 9-13, 19, 22, 32 9, 29	
10-13 10, 35	
11-12, 26 11-13, 35	
13, 16	<ul style="list-style-type: none"> • Culinary and Preparation
14-15 14-15, 36 14-16 (2) 14-20, 23-29, 35-36, 40	<ul style="list-style-type: none"> • Foodservice Experience • Program Regulations and Accountability • Service • Serving Food
15-16 15, 19, 22	
17-19 17-20 17-20, 23 17-21	<ul style="list-style-type: none"> • Cashier Techniques • Point of Sale/Cashier • Point of Service USDA Meal Program Requirement/Regulations and Accountability

D	E
List of functional areas to combine <i>provided by work group participants</i>	Suggestions for changing the names of Functional Areas <i>provided by work group participants</i>
If a combination of Functional Areas was provided more than once, the number of times the combination was provided is listed in parentheses and highlighted in yellow below. The combinations of Functional Areas are provided in numerical order below.	If changing the name of a Functional Area was provided more than once, the number of times the suggestion was provided is listed in parentheses and highlighted in yellow below. The suggestions are listed in alphabetical order below.
18-20 18, 21	
19-20, 23, 27 19, 21-22, 30-34, 37	<ul style="list-style-type: none"> • Program Management
22, 24-26 22, 24, 26, 28	<ul style="list-style-type: none"> • Customer Relations • Customer Service and Communication
23-28 23, 31 23, 37 23, 37, 40	
24-27 24-29 24-29, 35-37	<ul style="list-style-type: none"> • Inventory Control • Management
25-27	<ul style="list-style-type: none"> • Inventory Control and Management
28-29	
30-31 (2) 30-32 (2) 30-34 30-34, 38-40 30, 33-34 (2) 30, 32-34, 37, 39	<ul style="list-style-type: none"> • Job Requirement • Teamwork • Teamwork and Communication • Team Membership
	<ul style="list-style-type: none"> • Job Requirements • Marketing
33, 37, 39, 40	<ul style="list-style-type: none"> • Personal Characteristics
37-38 37, 40	<ul style="list-style-type: none"> • Job Requirements and Continued Improvement
	<ul style="list-style-type: none"> • Safe Work Environment
	<ul style="list-style-type: none"> • Training and Self Improvement

Round 3 Functional Areas

<ol style="list-style-type: none"> 1. Review the Round 2 Summary document. Use the information from that review to help guide your responses when completing this form. 2. In the spaces provided in column B, please list the number (NOT the name) of Functional Areas (listed in column A) that you wish to combine (for example: 1-4, 8-10). 3. List all the numbers of the Functional Areas that you would like to combine on the same line in column B. 4. If you think a Functional Area listed in column A should stand alone and not be combined, please list the number of that Functional Area on an individual line in column B. 5. If there is a Functional Area listed in column A that you do not think should stand alone or be combined with another Functional Area, please do NOT list the number in column B. 6. in column C, please identify a Name for the combination of Functional Areas you provided in the corresponding space in column B. 		
A Original list of potential Functional Areas	B	C
1. Food safety and Sanitation		
2. Food Safety (HACCP)		
3. Sanitation		
4. Sanitation / Cleaning		
5. Safe Work Environment / Employee Safety		
6. Equipment Use and Care		
7. Cleaning and Equipment Maintenance		
8. Cook/Baker		
9. Food preparation		
10. Cooking		
11. Quantity food service production		
12. Food Production		
13. Culinary Prep Skills		
14. Server/Serving		
15. Food Service		
16. Presentation of Food Items		
17. Point of Sale		
18. Cashier/Clerk/Cash Handling		
19. Food Sales		
20. Financial		
21. Basic Computer Skills		
22. Customer Service Skills		
23. USDA Meal Program Requirements / Program Regulations and Accountability		
24. Receiving / Stocking		
25. Inventory replenishment		
26. Food and Inventory Maintenance		
27. Inventory Control/Management		
28. Record Keeping/Documentation		
29. Preparing Report		
30. Communication & Teamwork		
31. Program Promotion		
32. Communication Skills		
33. Manageability		

APPENDIX E

Phase II Face-to-Face Meeting Email and Agenda

Hello Expert Work Group Participant!

We are looking forward to you participating in the expert work group to identify Competencies, Knowledge, and Skills needed by school nutrition (SN) assistants/technicians, which will be conducted on October 29 and 30, 2019. A draft agenda for the meeting is attached.

In preparation for the work group meeting, please complete the attached ***Expert Panel Pre-Meeting Assignment Form*** and bring it with you to our meeting in Hattiesburg, Mississippi. If you have any questions or concerns, please contact me via email at keith.rushing@usm.edu or by phone at 1-800-321-3054.

This project has been reviewed by the Human Subjects Protection Review Committee, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research subject should be directed to the chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5116, Hattiesburg, MS 39406, (601) 266-5997.

Thank you for being a part of the process! I look forward to working with you!

Best Regards!



Day 1 Agenda

► TUESDAY, OCTOBER 29, 2019

- Welcome: 8:30 a.m. - 8:45 a.m.
- Ice Breaker: 8:45 a.m. - 9:15 a.m.
- Research Overview: 9:15 a.m. - 9:45 a.m.
- Small Group Work: 9:45 a.m. - 12:00 p.m.
- Working Lunch: 12:00 p.m. - 1:00 p.m.
- Small Group Work: 1:00 p.m. - 3:00 p.m.
- Large Group Agreement Activity - 3:00 p.m. - 4:50 p.m.
- Wrap-Up: 4:50 p.m. - 5:00 p.m.



Day 2 Agenda

► WEDNESDAY, OCTOBER 30, 2019

- Charge for Today: 8:00 a.m. - 8:10 a.m.
- Large Group Agreement Activity: 8:10 a.m. - 10:00 a.m.
- Small Group Competency Grouping: 10:00 a.m. - 12:00 p.m.
- Working Lunch: 12:00 p.m. - 1:00 p.m.
- Large Group Competency Consensus 1:00 p.m. - 3:00 p.m.
- Large Group: When should Asst./Tech know: 3:00 p.m. - 4:00 p.m.
- Wrap-Up/Summary: 4:00 p.m.

APPENDIX F

Phase II Face-to-Face Meeting Pre-Meeting Work

Expert Panel Pre-Meeting Assignment Form

Please review the following definitions before completing this activity.

School nutrition (SN) assistants/technicians are the foodservice employees who work at the local school cafeteria under the direction of an SN manager.

Functional areas are the broad groupings or categories of similar tasks that reflect job duties performed by assistants/technicians within the local SN operation. These categories serve as an umbrella for all tasks that are listed on a work schedule or are done on a daily, weekly, or seasonal basis within the school year.

Competencies are underlying characteristics within each functional area that lead to successful performance. They may include knowledge and skills as well as various levels of motivation.

Knowledge is the information a person has in specific content areas that is necessary for successful performance in a competency area.

Skills are the abilities to perform certain physical and/or mental tasks that are necessary for successful performance in a competency area.

Instructions:

Based on previous research, 150 knowledge and skill statements have been identified for SN assistants/technicians. We have divided this number into 2 sets of statements. We are asking you to evaluate one of those sets, which is attached below, using the following instructions.

1. **Column A:** Review the wording of each knowledge and skill statement and then take an action in Columns B, C, and D.
2. **Column B:** Respond “YES” or “NO” that each statement in Column A is or is not a knowledge or skill needed by School Nutrition (SN) Assistants/Technicians in schools. Consider whether SN Assistants/Technicians in your state need this knowledge/skill and whether it might be needed by SN Assistants/Technicians in other states throughout the United States.
3. **Column C:** Respond “YES” or “NO” if you agree or do not agree with the wording of the knowledge/skill statement. There are some statements that are similar. If no, please provide your suggestions to keep, delete, or modify the wording of statements in Column D.
4. **Column D: Record your thoughts** concerning each statement in the “Comments” column. This might include re-wording suggestions, additional statements that are needed, etc. Your written comments will ensure that your thoughts are captured and contribute to the discussion at our meeting.

Additional spaces are provided at the bottom of the table to add knowledge/skill statements.

**PLEASE BRING YOUR COMPLETED PRE-MEETING FORM WITH YOU.
IT IS AN IMPORTANT PART OF OUR EXPERT PANEL WORK GROUP SESSION.**

Expert Panel Pre-Meeting Assignment Form

(Set 1)

Competencies, Knowledge, and Skills of Effective School Nutrition Technicians/Assistants

<p align="center">A</p> <p align="center">Knowledge/Skill Statement</p>	<p align="center">B</p> <p align="center">Do you confirm this is a knowledge or skill for SN Assistants/ Technicians in schools?</p> <p align="center">YES/NO</p>	<p align="center">C</p> <p align="center">Do you agree with the wording of the statement?</p> <p align="center">YES/NO</p> <p align="center">If no, provide suggested wording in Column D.</p>	<p align="center">D</p> <p align="center">Suggestions/ Comments</p>
1. Knows importance of portion control.			
2. Knows importance of and how to evaluate food quality during preparation and service.			
3. Knows basic food preparation techniques that are used in producing large quantities of food items.			
4. Follows standards for holding and serving food to maintain nutritive value and food quality.			
5. Follows instructions in using appropriate portion control tools to serve menu items.			
6. Prepares food products following standardized recipes and evaluates products to ensure quality standards are met.			
7. Completes meal set-up and replenishes serving line(s) to maintain properly cooked food items during the serving period.			
8. Assures appropriate quantity of food item portions are prepared and distributed according to established procedures.			
9. Uses appropriate quantity food production techniques to produce appealing and nutritious foods.			
10. Cooks food using batch cooking methods, when appropriate.			
11. Prepares meals for special diets according to recipes or other instructions provided.			
12. Knows units of measurement (pound, cup, etc.) used in food production.			
13. Knows basic math related to quantity food preparation and service.			
14. Knows importance of using resources such as production records and standardized recipes in order to control food quality, yield, portion size, and cost.			
15. Knows importance of following production/work schedules to meet established deadlines.			
16. Knows importance of and procedures for maintaining an accurate inventory system.			
17. Knows principles of work simplification related to food preparation.			
18. Assists with all phases of food preparation in the kitchen in a timely, safe, and sanitary manner.			
19. Reviews recipes and menus, estimates needed ingredients, and the time required for the production of a variety of food items.			
20. Reviews menu and production records for the following day to ensure needed ingredients are available, verify food items are thawed, and suggest menu substitutions, as appropriate.			
21. Reports accurately the amount of food used and leftover food.			
22. Assists with meal clean-up as directed by unit manager.			

Competencies, Knowledge, and Skills of Effective School Nutrition Technicians/Assistants

<p align="center">A</p> <p align="center">Knowledge/Skill Statement</p>	<p align="center">B</p> <p align="center">Do you confirm this is a knowledge or skill for SN Assistants/ Technicians in schools?</p> <p align="center">YES/NO</p>	<p align="center">C</p> <p align="center">Do you agree with the wording of the statement?</p> <p align="center">YES/NO</p> <p align="center">If no, provide suggested wording in Column D.</p>	<p align="center">D</p> <p align="center">Suggestions/ Comments</p>
23. Follows assigned work schedules to minimize production challenges.			
24. Completes advance food preparation for next day when necessary.			
25. Organizes hot and cold food for delivery to other foodservice units, as appropriate.			
26. Organizes tasks when assembling food, supplies, and utensils necessary to prepare recipes.			
27. Follows established procedures and completes required records for removing food and supplies from storage areas.			
28. Follows procedures for checking and documenting quantity, quality, and price of items ordered against receiving document/invoice.			
29. Assists in taking physical inventory of food supplies to determine needed quantities for ordering.			
30. Knows importance of practicing safe food handling.			
31. Knows established rules for personal hygiene and grooming, including dress, appearance, and personal habits.			
32. Maintains standards of personal appearance and hygiene according to district/department policies and procedures.			
33. Knows the importance and basic procedures to prevent foodborne illness and infection during food handling and production.			
34. Knows importance of time and temperature relationships (temperature danger zone) for food handling and preparation.			
35. Knows safety standards and sanitation practices used in school nutrition operations.			
36. Knows the importance of appropriate sanitation procedures when using and cleaning foodservice equipment.			
37. Knows how to use a food thermometer to check for appropriate temperatures of food items being served.			
38. Knows procedures for storing food and supplies that maximize sanitation and quality and avoid loss.			
39. Knows importance of state, local, and district sanitation code requirements for foodservice establishments.			
40. Knows the importance of following established receiving and storage procedures.			
41. Practices correct sanitation procedures and uses appropriate chemicals when using and sanitizing equipment and cleaning the facility.			
42. Follows rules of time and temperature relationships for food handling and preparation and reports deviations, as appropriate.			
43. Serves menu items in accordance with health and sanitation requirements.			

Competencies, Knowledge, and Skills of Effective School Nutrition Technicians/Assistants

<p align="center">A</p> <p align="center">Knowledge/Skill Statement</p>	<p align="center">B</p> <p align="center">Do you confirm this is a knowledge or skill for SN Assistants/ Technicians in schools?</p> <p align="center">YES/NO</p>	<p align="center">C</p> <p align="center">Do you agree with the wording of the statement?</p> <p align="center">YES/NO</p> <p align="center">If no, provide suggested wording in Column D.</p>	<p align="center">D</p> <p align="center">Suggestions/ Comments</p>
44. Follows health and sanitation requirements when preparing and serving food items.			
45. Uses and calibrates thermometers correctly.			
46. Follows established procedures for storing and disposing of leftover food from meals.			
47. Checks temperature of menu items on serving line and reports deviations, as appropriate.			
48. Follows procedures to ensure appropriate temperatures of hot and cold food are maintained during delivery to other foodservice units, as appropriate.			
49. Records daily temperatures of dry storage areas, refrigeration equipment, and dishwashing equipment and reports deficiencies, as appropriate.			
50. Follows established procedures for receiving food and supplies and assists manager, as appropriate.			
51. Follows procedures for using, cleaning, and disinfecting approved garbage and trash receptacles and areas regularly.			
52. Follows established procedures to maintain an effective insect and rodent control system.			
53. Follows established procedures related to the protection of the environment, including waste disposal, grease disposal, and water conservation.			
54. Knows procedures for use of fire extinguishers and/or fire extinguishing systems.			
55. Knows accident prevention practices, first aid procedures, and accident/injury reporting.			
56. Maintains foodservice facilities, equipment, and utensils in a clean, organized, and sanitary condition.			
57. Reports accidents and potential safety hazards to unit manager or immediate supervisor.			
58. Follows safety rules for employees, equipment, and facilities.			
59. Maintains clean and organized storage areas.			
60. Keeps work and storage areas organized and uncluttered.			
61. Demonstrates ability to use a fire extinguisher.			
62. Assists with preparation for fire, health, and safety inspections.			
63. Knows the importance of teamwork and cooperation with nutrition and school staff.			
64. Provides positive, professional, and friendly service.			
65. Uses a caring approach when interacting with students.			
66. Knows the importance of the appearance of the serving line and dining room during the meal period.			
67. Knows the importance of student feedback on food items served in cafeteria.			
68. Knows district procedures for reporting customer complaints.			

Competencies, Knowledge, and Skills of Effective School Nutrition Technicians/Assistants

<p align="center">A</p> <p align="center">Knowledge/Skill Statement</p>	<p align="center">B</p> <p align="center">Do you confirm this is a knowledge or skill for SN Assistants/ Technicians in schools?</p> <p align="center">YES/NO</p>	<p align="center">C</p> <p align="center">Do you agree with the wording of the statement?</p> <p align="center">YES/NO</p> <p align="center">If no, provide suggested wording in Column D.</p>	<p align="center">D</p> <p align="center">Suggestions/ Comments</p>
69. Encourages students to make healthy menu choices.			
70. Maintains the appearance of the serving line and dining room during the meal period to create a pleasant environment.			
71. Demonstrates ability to handle customer complaints effectively.			
72. Provides timely feedback on menu item preferences of students.			
73. Recommends appropriate menu modifications in response to customer requests, as appropriate.			
74. Garnishes menu items and serving lines attractively.			
75. Reports amount of plate waste from returned trays to unit manager, as assigned.			
76. Knows the importance of preserving confidentiality of students receiving free and reduced-price meals.			
77. Knows USDA meal component requirements for a reimbursable meal.			
78. Knows the Federal, State, local, and district policies, rules, and regulations regarding SNP, i.e., USDA meal pattern and reimbursable meals.			
79. Knows the importance of proper collection procedures for the school.			
80. Knows basic principles of nutrition as applies to school-age children.			
81. Maintains confidentiality of students receiving free or reduced-price meals.			
82. Follows the collection and recording procedures approved for point of service at the school.			

Expert Panel Pre-Meeting Assignment Form

(Set 2)

A Knowledge/Skill Statement	B Do you confirm this is a knowledge or skill for SN Assistants/ Technicians in schools? YES/NO	C Do you agree with the wording of the statement? YES/NO If no, provide suggested wording in Column D.	D Suggestions/ Comments
83. Demonstrates ability to identify a reimbursable meal on the serving line.			
84. Serves menu items to students and staff according to established guidelines.			
85. Monitors and ensures that reimbursable meals meet requirements.			
86. Assists with maintaining SN vending machines, as appropriate.			
87. Knows the importance of completing accurate production records.			
88. Knows the importance of accurate record-keeping.			
89. Counts money, balances cash drawer correctly and completes cashier reports with all transactions properly recorded.			
90. Maintains accurate records in compliance with federal, state, and local regulations.			
91. Maintains and completes required forms and records accurately, as assigned by manager.			
92. Assists in preparing and maintaining various records related to inventory, collected monies, and assigned activities.			
93. Knows school district's procedure for reporting accidents and injuries.			
94. Knows school, SNP, and district policies and procedures.			
95. Maintains confidentiality regarding school and workplace matters.			
96. Complies with all School Board policies, state and federal regulations, and School Nutrition handbook.			
97. Follows district procedures in personnel matters.			
98. Knows correct methods for operating foodservice equipment.			
99. Knows procedures for cleaning and maintaining equipment.			
100. Knows school district's policies and procedures regarding equipment repair.			
101. Follows sanitation procedures when using and cleaning foodservice equipment.			
102. Demonstrates ability to safely operate foodservice equipment.			
103. Uses small equipment items such as dippers, ladles, spoons, and knives appropriately.			
104. Demonstrates ability to understand safe equipment operation procedures.			

Competencies, Knowledge, and Skills of Effective School Nutrition Technicians/Assistants

A Knowledge/Skill Statement	B Do you confirm this is a knowledge or skill for SN Assistants/ Technicians in schools? YES/NO	C Do you agree with the wording of the statement? YES/NO If no, provide suggested wording in Column D.	D Suggestions/ Comments
105. Selects foodservice equipment suitable for the food product being prepared.			
106. Demonstrates ability to take apart and re-assemble foodservice equipment.			
107. Follows school district procedures for reporting equipment problems.			
108. Monitors foodservice equipment to ensure that is maintained in good working order.			
109. Knows importance of ongoing training to improvement of job skills.			
110. Demonstrates ability to meet work schedules and timelines.			
111. Demonstrates ability to add, subtract, multiply, and divide accurately.			
112. Demonstrates willingness to be flexible.			
113. Uses school/district resources (time, supplies, services, technology, etc.) in an ethical manner.			
114. Demonstrates ability to interpret detailed written instructions, such as schedules and recipes.			
115. Demonstrates willingness to help out when emergencies arise.			
116. Attends and participates in job-related training.			
117. Assists other staff as needed to meet established schedules.			
118. Demonstrates ability to work under the pressure of deadlines and interruptions.			
119. Performs work-related activities efficiently with limited supervision.			
120. Demonstrates ability to accurately and rapidly make correct change.			
121. Exercises independent judgment and initiative to resolve problems.			
122. Displays willingness to upgrade job knowledge and skills.			
123. Uses appropriate methods of problem solving and decision-making.			
124. Avoids problem situations and intervenes to avoid conflicts.			
125. Knows when decisions can be made independently, or consultation with supervisor is needed.			
126. Follows instructions of unit manager relating to safety measures, sanitation practices, personal standards, work techniques, and methods of performing duties.			

Competencies, Knowledge, and Skills of Effective School Nutrition Technicians/Assistants

A Knowledge/Skill Statement	B Do you confirm this is a knowledge or skill for SN Assistants/ Technicians in schools? YES/NO	C Do you agree with the wording of the statement? YES/NO If no, provide suggested wording in Column D.	D Suggestions/ Comments
127. Performs tasks stated in job description.			
128. Works independently to complete food preparation and cleaning tasks within assigned time frame.			
129. Applies knowledge and/or skills obtained from training activities to performance on the job.			
130. Assists in training less experienced personnel regarding equipment use and food preparation, as appropriate.			
131. Demonstrates ability to organize and establish priorities to complete job responsibilities to meet deadlines.			
132. Demonstrates ability to use a cash register, calculator, and/or computerized POS systems.			
133. Demonstrates ability to effectively mentor new employees.			
134. Knows the importance of helping inexperienced employees.			
135. Knows importance of giving and receiving constructive criticism.			
136. Knows methods of effective communication skills.			
137. Demonstrates ability to follow oral and written directions.			
138. Listens effectively to school nutrition manager and other staff.			
139. Responds appropriately to supervision and constructive criticism.			
140. Informs manager of potential problems or unusual events, as appropriate.			
141. Explains instructions/guidelines clearly to others.			
142. Knows the importance of having a positive attitude and creating a positive image for school nutrition.			
143. Knows importance of working with a diverse school community.			
144. Uses a professional manner when interacting with co-workers, school staff, students, and others.			
145. Works with a varied population in a meaningful, respectful, and appropriate manner.			
146. Establishes and maintains cooperative and effective working relationships with others.			
147. Demonstrates ability to work with a varied population in a meaningful, respectful, and appropriate manner.			
148. Knows the lines of communication within the school and school district, including chain of authority and levels of job responsibilities.			
149. Uses appropriate lines of communication within the school and school district.			
150. Participates in opportunities for improving professional status as a member of the education team.			

APPENDIX G

Phase III Electronic Review of CKS Resource Draft

Review Panel Evaluation**Personal/Program Characteristics:**

Please choose only one answer to the following questions by clicking on the box corresponding to your selection.

What statement best describes your position?

- ☐ School nutrition director
 ☐ District level school nutrition supervisor
 ☐ School-level school nutrition manager
 ☐ Other

What is the student enrollment in your school district?

- ☐ $\leq 1,999$
☐ 2,000–29,999
 ☐ $\geq 30,000$ or greater

Which USDA Region is your school district located?

- ☐ Mountain Plains
☐ Midwest
☐ Southeast
☐ Southwest
☐ Northeast
☐ Mid-Atlantic
☐ Western

What percent of students are approved for free and reduced-price meals in your school district?

- ☐ 0–19%
 ☐ 20–39%
 ☐ 40–59%
☐ 60–79%
 ☐ $\geq 80\%$

Definitions:

Please review the definitions below prior to completing the evaluation.

School nutrition (SN) assistants/technicians – foodservice employees who work at the local school cafeteria under the direction of an SN manager.

Functional areas are the broad categories of similar tasks that reflect job duties performed by assistants/technicians.

Competencies are underlying characteristics of functional areas that lead to successful performance.

Knowledge and skill statements (which we are asking you to evaluate) are the understanding of specific information and the ability to perform specific tasks that are necessary for successful performance within a competency area.

Evaluation Instructions:

Please review prior to completing the evaluation.

The tables below are organized by functional areas (highlighted in yellow) and competencies (highlighted in blue) with the corresponding knowledge and skill statements.

- Indicate whether or not you agree with the wording of each knowledge/skill statement by typing “yes” or “no” in Column C. If you answer “no,” please provide suggested wording modification in column D.
- Indicate whether or not you agree with the placement of the knowledge/skill statement under the functional area or competency by typing “yes” or “no” in Column C.
- Provide any questions, comments, or additional modifications to each statement in Column D, as deemed necessary.

FUNCTIONAL AREA 1: Equipment Use and Care				
A		B	C	D
Competencies, Knowledge/Skill Statements		Do you agree with the wording of the knowledge/skill statement? Yes or No	Is it in the appropriate functional area or competency? Yes or No	Questions/ Comments/ Modifications
1.1 Selection and Operation	1.1a Demonstrates the ability to select the correct foodservice equipment for the food product being prepared.			
	1.1b Demonstrates ability to operate foodservice equipment appropriately.			
1.2 Maintenance	1.2a Understands the importance of routinely monitoring foodservice equipment and reports issues to supervisor.			
	1.2b Demonstrates the ability to take apart and re-assemble assigned foodservice equipment as appropriate for maintenance and repair.			

FUNCTIONAL AREA 2: Food Production				
A		B	C	D
Competencies, Knowledge/Skill Statements		Do you agree with the wording of the knowledge/skill statement? Yes or No	Is it in the appropriate functional area or competency? Yes or No	Questions/ Comments/ Modifications
2.1 Units and Measures	2.1a Knows units of measurement (pound, cup, etc.) used in preparation/production and demonstrates the ability to make appropriate conversions and sizing adjustments as needed.			
2.2 Preparation and Production	2.2a Understands the importance of routinely monitoring foodservice equipment and reports issues to supervisor.			
2.3 Maintenance	2.3a Demonstrates ability to take apart and re-assemble assigned foodservice equipment as appropriate for maintenance and repair.			
	2.3c Knows units of measurement (pound, cup, etc.) used in preparation/production and is able to make appropriate conversions and sizing adjustments as needed.			
2.4 Preparation and Production	2.4a Knows and demonstrates basic food preparation techniques used in producing large quantities of food items.			
	2.4b Knows and demonstrates the ability to prepare food products following standardized recipes.			

FUNCTIONAL AREA 2: Food Production (continued)				
A		B	C	D
Competencies, Knowledge/Skill Statements		Do you agree with the wording of the knowledge/skill statement? Yes or No	Is it in the appropriate functional area or competency? Yes or No	Questions/Comments/Modifications
2.5 Quality Control	2.5a Knows and demonstrates the ability to prepare meals for special diets according to recipes or other instructions provided by manager or supervisor.			
	2.5b Understands the importance of and demonstrates proper portion control.			
	2.5c Knows the importance of and demonstrates proper procedures for monitoring and evaluating all foods (received and produced) to ensure quality standards are achieved.			
2.6 Quality Control	2.6a Knows the importance of reporting quality issues to appropriate individuals and demonstrates the ability to identify plans to address the issues.			
	2.6b Demonstrates proper procedures for monitoring plate waste and reporting observations to the supervisor.			
2.7 Inventory Control	2.7a Knows the importance of and demonstrates proper procedures for First-In, First-Out (FIFO) when managing inventory.			
	2.7b Demonstrates proper procedures for taking physical inventory of food supplies to determine needed quantities for ordering.			

FUNCTIONAL AREA 3: Food Safety and Sanitation				
A		B	C	D
Competencies, Knowledge/Skill Statements		Do you agree with the wording of the knowledge/skill statement? Yes or No	Is it in the appropriate functional area or competency? Yes or No	Questions/Comments/ Modifications
3.1 Food Safety and Sanitation	3.1a Knows the importance of and demonstrates appropriate personal hygiene practices for SN operations.			
	3.1b Knows the importance of and demonstrates proper procedures for safe food handling.			
	3.1c Knows the importance of and demonstrates proper procedures for cleaning and sanitizing food contact surfaces.			

FUNCTIONAL AREA 4: Personal Characteristics				
A		B	C	D
Competencies, Knowledge/Skill Statements		Do you agree with the wording of the knowledge/skill statement? Yes or No	Is it in the appropriate functional area or competency? Yes or No	Questions/ Comments/ Modifications
4.1 General	4.1a Demonstrates willingness to be flexible.			
	4.1b Knows the importance of and demonstrates proper procedures for maintaining confidentiality regarding school and workplace matters.			
	4.1c Demonstrates ability to work under the pressure of deadlines and with interruptions.			
	4.1d Knows the importance of and demonstrates the ability to work with a diverse school community.			
4.2 Communication	4.2a Demonstrates effective oral and written communication.			

FUNCTIONAL AREA 4: Personal Characteristics (continued)				
A		B	C	D
Competencies, Knowledge/Skill Statements		Do you agree with the wording of the knowledge/skill statement? Yes or No	Is it in the appropriate functional area or competency? Yes or No	Questions/Comments/Modifications
4.2 Communication	4.2b Demonstrates appropriate uses of lines of communication within the school and school district, including chain of authority and levels of job responsibilities.			
	4.2c Demonstrates the ability to positively resolve conflict.			
4.2 Communication	4.2d Demonstrates a professional manner when interacting with co-workers, school staff, students, and others.			

FUNCTIONAL AREA 4: Personal Characteristics (continued)				
A		B	C	D
Competencies, Knowledge/Skill Statements		Do you agree with the wording of the knowledge/skill statement? Yes or No	Is it in the appropriate functional area or competency? Yes or No	Questions/ Comments/ Modifications
4.3 Customer Service	4.3a Understands the importance of being responsive to student preferences and requests and demonstrates timely and helpful feedback to supervisor regarding these interactions.			
4.4 Basic Math and Technology Skills	4.4a Demonstrates ability to add, subtract, multiply, and divide.			
	4.4b Demonstrates the ability to utilize a computer to check email.			
4.5 Judgement	4.5a Understands the importance of following the chain of command to report potential problems or unusual events.			

FUNCTIONAL AREA 5: USDA Meal Program Requirements				
A		B	C	D
Competencies, Knowledge/Skill Statements		Do you agree with the wording of the knowledge/skill statement? Yes or No	Is it in the appropriate functional area or competency? Yes or No	Questions/ Comments/ Modifications
5.1 Reports and Records	5.1a Understands and demonstrates proper procedures for handling money and operating the point of sale/cash register.			
	5.1b Knows meal pattern requirements for a reimbursable meal.			
	5.1c Understands and demonstrates proper procedures for completing production records.			

FUNCTIONAL AREA 6: Workplace and Employee Safety				
A		B	C	D
Competencies, Knowledge/Skill Statements		Do you agree with the wording of the knowledge/skill statement? Yes or No	Is it in the appropriate functional area or competency? Yes or No	Questions/ Comments/ Modifications
6.1 Work Environment	6.1a Knows the importance of and demonstrates proper procedures for maintaining clean and organized work and storage areas.			
	6.1b Knows the importance of and demonstrates proper procedures related to the protection of the environment.			
	6.1c Knows the importance of and demonstrates proper procedures for using Safety Data Sheets.			
6.2 Employee Safety	6.2a Demonstrates proper procedures for lifting and carrying.			

APPENDIX H

Phase III Invitation Letter for Face-to-Face Work Group Meeting

Dear School Nutrition Professional,

The Institute of Child Nutrition (ICN), Applied Research Division (ARD), invites you to participate in an expert work group. The purpose of this work group is to develop tools to accompany the recently revised Competencies, Knowledge, and Skills (CKS) for school nutrition (SN) assistants/technicians. School nutrition assistants/technicians are the foodservice employees who work at local school cafeterias under the direction of SN managers.

The specific objectives of the work group are to:

1. Develop an online national survey based on the revised CKS resource to determine the current training and professional development needs of SN assistants/technicians at the district and national level
2. Identify the framework for needed interactive online competency-based templates to support SN managerial staff in human resources-related activities as they pertain to SN assistants/technicians. Examples of these may include job descriptions, performance appraisals, staff training plans, mentoring guides, succession plans, etc.

You have been recommended to participate in this panel because you were recommended by your State agency Child Nutrition Program director. The expert panel work group will convene at the University of Southern Mississippi's campus in Hattiesburg, Mississippi, for one day. The Institute of Child Nutrition will take care of expenses. The expert panel work group to which you are being invited to attend will be held on Tuesday, February 25, 2020, from 8:30 am to 5:00 pm. Monday February 24, will be a travel day to Hattiesburg, and Wednesday, February 26, will be a travel day back to your home location.

Your participation in this study is strictly voluntary. Please refer to the attached *informed consent* document for more details concerning your participation in this research study.

Please let me know if you will be able to participate in this expert panel work group on or before (Friday, December 20th).

If you agree to participate, please respond to this email, and provide your updated contact information, including:

- complete name
- title
- mailing and shipping addresses
- phone
- fax number

If you agree to participate, there is no need to complete and return the attached consent form, as your email will imply consent. If you have questions or concerns, do not hesitate to contact me at 1-800-321-3054 Keith.Rushing@usm.edu.

This project has been reviewed by the Human Subjects Protection Review Committee, which ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research subject should be directed to the chair of the Institutional Review Board, The University of Southern Mississippi, 118 College Drive #5116, Hattiesburg, MS 39406, (601) 266-5997.

APPENDIX I

Phase III Pre-Meeting Assignment

Dear School Nutrition Professional,

Thank you for agreeing to be an expert panel participant on February 25th in Hattiesburg, Mississippi, at the Institute of Child Nutrition, Applied Research Division (ICN, ARD). To help you prepare for the meeting, I have attached to this email a copy of the most recent version of Competency, Knowledge, and Skill (CKS) Statements for school nutrition (SN) assistants/technicians. These statements were revised and validated over the last year by two groups of SN professionals. ICN defines SN assistants/technicians as any SN employee who reports to a unit-level SN manager or supervisor.

Traditionally, ICN and USDA use these statements as a foundation for developing training activities and resources to support SN professionals.

Now we want to get your opinion on how these statements can be formatted and utilized by SN professionals, such as yourself, to make your job easier by helping you be more efficient and effective.

As you read the CKS, please consider the following questions:

1. What can ICN create to make the CKS resource more useful to SN professionals? For example:
 - Customizable Job Descriptions
 - Customizable Performance Appraisals
 - Customizable Annual Training Plans/Schedules
 - Customizable Training Needs Assessment
 - Customizable Mentoring/Job Shadowing Schedules
 - Professional Standards Reference Guide
 - SNA Certificate Program Reference Guide
 - Other
2. What would the items you identified look like?
3. How would they be used by school nutrition professionals?

Again, thank you for your time and for agreeing to participate in the meeting. I look forward to working with you in a couple of weeks.

Competency, Knowledge, and Skills—School Nutrition Assistants/Technicians 2020

Functional Areas	Competencies		Knowledge/Skill Statements	
1. Equipment Use and Care	1.1	Selection and Operation	1.1a	Selects correct foodservice equipment for the food product being prepared.
			1.1b	Uses foodservice equipment (such as serving utensils and knives) appropriately.
	1.2	Maintenance and Repair	1.2a	Routinely monitors foodservice equipment and reports issues to supervisor.
			1.2b	Demonstrates ability to take apart and re-assemble assigned foodservice equipment as appropriate.
2. Food Production	2.1	Units and Measures	2.1a	Knows units of measurement (pound, cup, etc.) used in preparation/production and is able to make appropriate conversions and sizing adjustments as needed.
	2.2	Preparation and Production	2.2a	Prepares meals for special diets according to recipes or other instructions, as provided by manager or supervisor.
			2.2b	Understands and demonstrates proper portion control.
	2.3	Quality Control	2.3a	Knows the importance of and follows procedures for monitoring food quality.
			2.3b	Evaluates products to ensure food quality standards are met, reports quality issues to appropriate individuals, and participates in plans to address the issues.
			2.3c	Is aware of plate waste, reports plate waste observations, and participates in evaluation of plate waste according to program plan
	2.4	Inventory Control	2.4a	Knows and utilizes First-In, First -Out (FIFO) when managing inventory
			2.4b	Assists in taking physical inventory of food supplies to determine needed quantities for ordering.

Competency, Knowledge, and Skills—School Nutrition Assistants/Technicians 2020

Functional Areas		Competencies		Knowledge/Skill Statements	
3	Food Safety and Sanitation	3.1	Food Safety and Sanitation	3.1a	Knows and follows safety standards and sanitation practices used in school nutrition operations.
				3.1b	Follows established procedures for safely storing and disposing of leftover food from meals.
				3.1c	Follows procedures to maintain proper temperatures of food during delivery.
4	Personal Characteristics	4.1	General	4.1a	Demonstrates willingness to be flexible.
				4.1b	Maintains confidentiality regarding school and workplace matters.
				4.1c	Demonstrates ability to work under the pressure of deadlines and with interruptions.
				4.1d	Knows the importance of and demonstrates the ability to work with a diverse school community.
		4.2	Communication	4.2a	Knows and uses methods of effective oral and written communication.
				4.2b	Knows and uses the lines of communication within the school and school district, including chain of authority and levels of job responsibilities.
				4.2c	Demonstrates the ability to positively resolve conflict.
				4.2d	Uses a professional manner when interacting with co-workers, school staff, students, and others.
		4.3	Customer Service	4.3a	Is appropriately responsive to student preferences and requests and is able to provide timely and helpful feedback to supervisor regarding these interactions.
				4.4a	Demonstrates ability to add, subtract, multiple, and divide accurately.
		4.5	Judgment	4.5a	Uses chain of command to report potential problems or unusual events.

Competency, Knowledge, and Skills—School Nutrition Assistants/Technicians 2020

Functional Areas		Competencies		Knowledge/Skill Statements	
5	USDA Meal Program Requirements	5.1	Reports and Records	5.1a	Counts money, balances cash drawer correctly, and completes cashier reports, with all transactions properly recorded as required.
6	Workplace and Employee Safety	6.1	Work Environment	6.1a	Maintains clean and organized work and storage areas.
				6.1b	Follows established procedures related to the protection of the environment.

APPENDIX J**CKS Resource Review Panel Evaluation Form**

1. Is the resource organized well and easy to read?
2. Do you have any suggestions on how it can be improved?
3. Do you have any additional comments?

Personal/Program Characteristics:

Please choose only one answer to the following questions by clicking on the box corresponding to your selection.

What statement best describes your position?

- | | | | |
|--|---|--|--------------------------------|
| <input type="checkbox"/> School nutrition director | <input type="checkbox"/> District level school nutrition supervisor | <input type="checkbox"/> School-level school nutrition manager | <input type="checkbox"/> Other |
|--|---|--|--------------------------------|

What is the student enrollment in your school district?

- | | | |
|----------------------------------|---------------------------------------|--|
| <input type="checkbox"/> ≤ 1,999 | <input type="checkbox"/> 2,000–29,999 | <input type="checkbox"/> ≥ 30,000 or greater |
|----------------------------------|---------------------------------------|--|

What USDA Region is your school district located?

- | |
|--|
| <input type="checkbox"/> Mountain Plains |
| <input type="checkbox"/> Midwest |
| <input type="checkbox"/> Southeast |
| <input type="checkbox"/> Southwest |
| <input type="checkbox"/> Northeast |
| <input type="checkbox"/> Mid-Atlantic |
| <input type="checkbox"/> Western |

What percentage of students are approved for free and reduced-price meals in your school district?

- | | | |
|---------------------------------|---------------------------------|---------------------------------|
| <input type="checkbox"/> 0–19% | <input type="checkbox"/> 20–39% | <input type="checkbox"/> 40–59% |
| <input type="checkbox"/> 60–79% | <input type="checkbox"/> ≥ 80% | |

APPENDIX K

Competencies, Knowledge, and Skills of Effective School Nutrition Assistants/Technicians

Competencies, Knowledge, and Skills

of Effective School Nutrition Assistants/Technicians



APPLIED RESEARCH DIVISION • THE UNIVERSITY OF SOUTHERN MISSISSIPPI

Competencies, Knowledge, and Skills of Effective School Nutrition Assistants/Technicians

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Institute of Child Nutrition

The University of Mississippi

The Institute of Child Nutrition was authorized by Congress in 1989 and established in 1990 at The University of Mississippi in Oxford and is operated in collaboration with The University of Southern Mississippi in Hattiesburg. The Institute operates under a grant agreement with the United States Department of Agriculture, Food and Nutrition Service.

PURPOSE

The purpose of the Institute of Child Nutrition is to improve the operation of child nutrition programs through research, education and training, and information dissemination.

MISSION

The mission of the Institute of Child Nutrition is to provide information and services that promote the continuous improvement of child nutrition programs.

VISION

The vision of the Institute of Child Nutrition is to be the leader in providing education, research, and resources to promote excellence in child nutrition programs.

This project was funded using U.S. Department of Agriculture grant funds. The USDA is an equal opportunity provider, employer and lender.

The University of Mississippi is an EEO/AA/Title VI/Title IX/Section 504/ADA/ADEA Employer.

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05/23/22



INSTITUTE OF CHILD NUTRITION

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Introduction

WHAT ARE COMPETENCIES, KNOWLEDGE, AND SKILLS (CKS)?

The Competencies, Knowledge, and Skills (CKS) series is the Institute of Child Nutrition (ICN) Applied Research Division's signature research-based resource for child nutrition (CN) professionals. The CKS resources identify the necessary competencies, knowledge, and skills needed by the majority of professionals employed in CN programs to perform their job functions effectively. These resources provide a foundation for developing job descriptions and staffing plans, and they are useful for creating performance plans and organizing annual training schedules.

The field of CN is continually changing, and CKS resources must be updated routinely to reflect the current needs of CN programs. This CKS resource for school nutrition (SN) assistants/technicians is an update of the 2006 resource, *Competencies, Knowledge and Skills of Effective School Nutrition Assistants and Technicians* (Nettles, M. F. & Carr, D.).

HOW THIS RESOURCE WAS DEVELOPED

For the purposes of this research, SN assistants/technicians are foodservice employees who work at a local school cafeteria under the direction of an SN manager. Due to the vast diversity of how SN programs function, the position of SN assistant/technician covers a broad range of job responsibilities related to food production, sanitation, and program accountability. Examples of these responsibilities include, but are not limited to, the following: cooking and food preparation, setting up the serving area, serving meals, operating point-of-service systems, receiving food and supply deliveries, and conducting physical inventories. This research was conducted in three phases with a diverse group of SN professionals from all seven United States Department of Agriculture (USDA) Food and Nutrition Service (FNS) regions.

- **Phase I** included a literature review, four case study site visits, and an electronic expert work group (via email) to identify the functional areas for SN assistants/technicians.
- **Phase II** included two face-to-face expert work groups tasked with developing CKS for the functional areas.
- **Phase III** included an electronic review panel who confirmed the CKS for each functional area via an online survey in Qualtrics, (an online survey platform). Additionally, during Phase III, an expert work group was asked to identify content for instructing users on how to best utilize this resource.

After the three phases, the expert work groups recommended six functional areas: Equipment Use and Care, Food Production, Food Safety and Sanitation, Personal Characteristics, USDA Meal Program Requirements, and Workplace and Employee Safety. The expert work groups reached a consensus to include 15 competencies and 36 knowledge and skill statements within the six functional areas.



DEFINITIONS

Researchers used the following definitions that were also used in the 2006 CKS resource:

School nutrition assistants/technicians are the foodservice employees who work at the local school cafeteria under the direction of an SN manager.

Functional areas are the broad groupings or categories of similar tasks that reflect job duties performed by assistants/technicians within the local SN operation. These categories serve as an umbrella for all tasks that are listed on a work schedule or are done on a daily, weekly, or seasonal basis within the school year.

Competencies are underlying characteristics within each functional area that lead to successful performance. They may include knowledge and skills as well as various levels of motivation.

Knowledge is the information a person has in specific content areas that is necessary for successful performance in a competency area.

Skills are the abilities to perform certain physical and/or mental tasks that are necessary for successful performance in a competency area.



HOW TO USE THIS RESOURCE

This *Competencies, Knowledge, and Skills of Effective School Nutrition Assistants/Technicians* resource can be used as a guide for writing job descriptions, conducting interviews, planning training sessions, mentoring SN assistants/technicians, and conducting performance appraisals. Links for electronic tools for job descriptions, interviews, mentoring, and performance appraisals can be found at <https://theicn.org/research>.

The USDA Professional Standards for All School Nutrition Employees (USDA) require at least six hours of annual training for SN staff who work 20 hours per week and at least four hours of annual training for SN staff who work less than 20 hours per week. Those who are hired after January 1 must complete half of the required training hours. The USDA Child Nutrition Program's Professional Standards Training Tracker Tool (PSTTT) is linked in the *Application Tools* section: <https://pstrainingtracker.fns.usda.gov/>.

Chapter 1 of this document provides competency, knowledge, and skill information that can empower SN professionals to strengthen their programs in a variety of ways:

- School nutrition administrators may use the information to identify and develop job position functions. This competencies, knowledge, and skills resource can be used to help identify job descriptions and interview questions for prospective staff.
- An SN administrator or manager can compare the characteristics of an SN assistant/technician's current, observed workplace practices against the recommended knowledge and skills described in the resource. Differences or shortfalls in job performance, which are identified in this comparison, can be used as teaching points.
- An SN administrator or manager can plan training opportunities that meet the USDA Professional Standards for SN assistants/technicians.
- An SN administrator may use the information to offer mentoring and educational opportunities for the SN assistants/technicians to effectively function in his or her role.

Chapter 2 of this resource provides tools to apply the competencies, knowledge, and skills information shared. This section is titled *Application Tools* and includes the following: a job description template (as a fillable form), a job interview template, an individual mentoring plan for SN managers form, and a competency-based performance appraisal (as a fillable form). Each tool has detailed instructions on its usage and on how to complete the document. To allow for ease of use, the full version of each tool shown in the *Application Tools* section is available for download at the following link: <https://theicn.org/research>.

Chapter 3 provides information on supplementary ICN training resources, which are helpful when applied to competencies, knowledge, and skills. This section includes a chart of the Functional Areas with suggestions of free, self-paced, online ICN courses that are applicable to the specific knowledge or skill statement.



CHAPTER 1

FUNCTIONAL AREAS: COMPETENCIES, KNOWLEDGE, AND SKILLS

FUNCTIONAL AREAS

1. EQUIPMENT USE AND CARE
2. FOOD PRODUCTION
3. FOOD SAFETY AND SANITATION
4. PERSONAL CHARACTERISTICS
5. USDA MEAL PROGRAM REQUIREMENTS
6. WORKPLACE AND EMPLOYEE SAFETY



CHAPTER I: COMPETENCIES, KNOWLEDGE, AND SKILLS OF EFFECTIVE SCHOOL NUTRITION ASSISTANTS/TECHNICIANS

FUNCTIONAL AREA I: EQUIPMENT USE AND CARE

This functional area is defined as the selection, operation, and maintenance of foodservice equipment.

COMPETENCIES	KNOWLEDGE AND SKILL STATEMENTS
1.1 Selection and Operation	<p>1.1a Demonstrates the ability to select the correct foodservice equipment for the food product being prepared.</p> <p>1.1b Demonstrates the ability to operate foodservice equipment appropriately.</p>
1.2 Maintenance	<p>1.2a Understands the importance of routinely monitoring foodservice equipment and reports issues to supervisor.</p> <p>1.2b Demonstrates ability to take apart and re-assemble assigned foodservice equipment as appropriate for maintenance and repair.</p>



FUNCTIONAL AREA 2: FOOD PRODUCTION

This functional area is defined as the production of high-quality food products using procedures for receiving, inventory, preparation, and service of safe, appetizing, nutritious meals to students.

COMPETENCIES	KNOWLEDGE AND SKILL STATEMENTS
2.1 Units and Measures	2.1a Knows units of measurement (pound, cup, etc.) used in preparation/production, and demonstrates the ability to make appropriate conversions and sizing adjustment, as needed.
2.2 Preparation and Production	2.2a Knows and demonstrates basic food preparation techniques used in producing large quantities of food items. 2.2b Knows and demonstrates the ability to prepare food products following standardized recipes. 2.2c Knows and demonstrates the ability to prepare meals for special diets according to recipes or other instructions provided by manager or supervisor. 2.2d Understands the importance of and demonstrates proper portion control.
2.3 Quality Control	2.3a Knows the importance of and demonstrates proper procedures for monitoring and evaluating all foods (received and produced) to ensure quality standards are achieved. 2.3b Knows the importance of reporting quality issues to appropriate individuals and demonstrates the ability to identify plans to address the issues. 2.3c Demonstrates proper procedures for monitoring plate waste and reporting observations to the supervisor.
2.4 Inventory Control	2.4a Knows the importance of and demonstrates proper procedures for First-In-First-Out (FIFO) when managing inventory. 2.4b Demonstrates proper procedures for taking physical inventory of food supplies to determine needed quantities for ordering.



CHAPTER I: COMPETENCIES, KNOWLEDGE, AND SKILLS OF EFFECTIVE SCHOOL NUTRITION ASSISTANTS/TECHNICIANS

FUNCTIONAL AREA 3: FOOD SAFETY AND SANITATION

This functional area is defined as the policies and procedures for keeping customers safe from foodborne illnesses by maintaining personal hygiene, safe food handling, and sanitary conditions.

COMPETENCIES	KNOWLEDGE AND SKILL STATEMENTS
3.1 Food Safety and Sanitation	<p>3.1a Knows the importance of and demonstrates appropriate personal hygiene practices for SN operations.</p> <p>3.1b Knows the importance of and demonstrates proper procedures for safe food handling.</p> <p>3.1c Knows the importance of and demonstrates proper procedures for cleaning and sanitizing food contact surfaces.</p>



FUNCTIONAL AREA 4: PERSONAL CHARACTERISTICS

This functional area is defined as the attributes needed for success as an SN assistant/technician.

COMPETENCIES	KNOWLEDGE AND SKILL STATEMENTS
4.1 General	<p>4.1a Demonstrates willingness to be flexible.</p> <p>4.1b Knows the importance of and demonstrates proper procedures for maintaining confidentiality regarding school and workplace matters.</p> <p>4.1c Demonstrates ability to work under the pressure of deadlines and with interruptions.</p> <p>4.1d Knows the importance of and demonstrates the ability to work with a diverse school community.</p>
4.2 Communication	<p>4.2a Demonstrates effective oral and written communication.</p> <p>4.2b Demonstrates appropriate uses of lines of communication within the school and school district, including chain of authority and levels of job responsibilities.</p> <p>4.2c Demonstrates the ability to positively resolve conflict.</p> <p>4.2d Demonstrates a professional manner when interacting with co-workers, school staff, students, and others.</p>
4.3 Customer Service	<p>4.3a Understands the importance of being responsive to student preferences and requests and demonstrates timely and helpful feedback to supervisor regarding these interactions.</p>
4.4 Basic Math and Technology Skills	<p>4.4a Demonstrates ability to add, subtract, multiply, and divide accurately.</p> <p>4.4b Demonstrates the ability to utilize a computer to check email.</p>
4.5 Judgement	<p>4.5a Understands the importance of following the chain of command to report potential problems or unusual events.</p>



CHAPTER I: COMPETENCIES, KNOWLEDGE, AND SKILLS OF EFFECTIVE SCHOOL NUTRITION ASSISTANTS/TECHNICIANS

FUNCTIONAL AREA 5: USDA MEAL PROGRAM REQUIREMENTS

This functional area is defined as the responsibilities of accurately handling funds, following USDA meal patterns, and completing production records.

COMPETENCIES	KNOWLEDGE AND SKILL STATEMENTS
5.1 Reports and Records	5.1a Understands and demonstrates proper procedures for handling money and operating the point of sale/cash register.
	5.1b Knows meal pattern requirements for a reimbursable meal.
	5.1c Understands and demonstrates proper procedures for completing production records.



FUNCTIONAL AREA 6: WORKPLACE AND EMPLOYEE SAFETY

This functional area is defined as procedures for maintaining a safe and sanitary work environment.

COMPETENCIES	KNOWLEDGE AND SKILL STATEMENTS
6.1 Work Environment	6.1a Knows the importance of and demonstrates proper procedures for maintaining clean and organized work and storage areas.
	6.1b Knows the importance of and demonstrates proper procedures related to the protection of the environment.
	6.1c Knows the importance of and demonstrates proper procedures for using Safety Data Sheets.
6.2 Employee Safety	6.1a Demonstrates proper procedures for lifting and carrying.



CHAPTER 2

APPLICATION TOOLS

1. JOB DESCRIPTION TEMPLATE
2. JOB INTERVIEW TEMPLATE
3. INDIVIDUAL MENTORING FORM
4. PERFORMANCE APPRAISAL TEMPLATE
5. THE USDA CHILD NUTRITION PROGRAM'S
PROFESSIONAL STANDARDS TRAINING TRACKER TOOL

CHAPTER 2: APPLICATION TOOLS

Application Tools

This section of the resource provides customizable tools to apply the competencies, knowledge, and skills information. This section includes the following: a job description template (as a fillable form), a job interview template, an individual mentoring form for SN managers, a competency-based performance appraisal (as a fillable form), and the USDA Child Nutrition Program's Professional Standards Training Tracker Tool (PSTTT). The PSTTT is a free, web-based tool, designed to assist SN professionals in keeping track of their annually required training hours. Each tool has detailed instructions on its usage and on how to complete the document. To allow for ease of use, the full version of each tool shown in the Application Tools section is available for download at the following link: <https://theicn.org/research>.



Job Description Template

INSTRUCTIONS

1. Open the Job Description Template.
2. Go to the File menu and choose Save As.
3. Save the job description as the file name you prefer.
4. Delete the word Template from the file.
5. Add desired Educational Requirements.
6. Use the drop down menus to choose items under Essential Duties and Responsibilities and the Knowledge and Skill Requirements.
7. Save the customized job description.
8. Distribute the job description to prospective applicants.
9. Have new employees sign the job description during orientation.



[Insert School Name Here]
Job Description Template

Company Name:
 Company Logo:

Job Title:
Work Location:
Division/Department:
Reports to (Insert name of supervisor here.):
<input type="checkbox"/> Full time <input type="checkbox"/> Exempt
<input type="checkbox"/> Part time <input type="checkbox"/> Non exempt
Education Requirements NOTE: Examples could include a high school diploma, an equivalent food safety certification, etc.
Essential duties and responsibilities: NOTE: This section is used to describe the essential duties and responsibilities required of this position. Choose from the drop-down menu in each line the essential duties and responsibilities for this position. You can delete the red text once you complete this step. You can also delete a line by selecting the row(s) and pressing delete, or by right clicking and selecting "Delete Rows." You can also add rows by clicking the "+" by hovering the pointer over the left side of the row. Right click copy and then paste the drop-down menu into the row.
Choose an item
Choose an item
Choose an item
Knowledge and Skill Requirements: NOTE: This section is used to describe the knowledge and skills required of this position. Choose from the drop-down menu in each line the essential duties and responsibilities for this position. You can delete the red text once you complete this step. You can also delete a line by selecting the row(s) and pressing delete or right click and selecting "Delete Rows." You can also add rows by clicking the "+" by hovering the pointer over the left side of the row. Right click copy and then paste the drop-down menu into the row.
Choose an item
Choose an item
Choose an item
Print Employee Name _____ Employee Signature _____
Date _____



Job Interview Template

The job interview template can be customized with your school name at the top. The interviewer can numerically rate the interview answers. The total score for each applicant can be used to assist in making hiring decisions.

INSTRUCTIONS

1. Open the Job Interview Template.
2. Go to the File menu and choose Save As.
3. Save the job description as the file name you prefer.
4. Add the school name and delete the word Template from the file.



Job Interview Template**[Insert School Name Here]****Date:** _____**Applicant Name:** _____ **Position Requested:** _____**Date Available:** _____ **Salary Requested:** _____**Application Review**

Does the applicant meet the following qualifications for the job?	Yes	No	Notes
Work Experience			
Applicable Skills			
Education			
Certification			

Rate answers 1-5 (1= lowest, 5= highest).

Observations	Rating (Circle One.)	Comments
1. Was the applicant clean, neat, and appropriately dressed?	1 2 3 4 5	
2. Was the applicant courteous and respectful with the interviewers?	1 2 3 4 5	
3. Did the applicant show enthusiasm about the job opportunity?	1 2 3 4 5	
4. Did the applicant answer your questions clearly and effectively?	1 2 3 4 5	
5. Did the applicant maintain good eye contact and listening skills, and exhibit appropriate body language?	1 2 3 4 5	

Rate answers 1-5 (1= lowest, 5 =highest).

Questions	Rating (Circle One)
1. What do you know about the position you are applying for?	1 2 3 4 5
2. Are you able to perform all the job duties/functions listed in the Job Description?	1 2 3 4 5
3. Why are you interested in this position and how does this position fit into your career goals?	1 2 3 4 5
4. What is the largest number of people you have cooked for? How did you organize yourself for the project?	1 2 3 4 5
5. In your previous work experiences, how do you believe those around you would describe your motivation? What motivates you at work?	1 2 3 4 5



[Insert School Name Here.]

Job Interview Template**Date:** _____**Applicant Name:** _____**Position Requested:** _____**Date Available:** _____**Salary Requested:** _____**Rate answers 1-5 (1= lowest, 5= highest).**

Observations	Rating (Circle One)
6. Is there anything that would prevent you from having perfect attendance at work?	1 2 3 4 5
7. How do you define exceptional customer service? How would you assist your team in achieving this?	1 2 3 4 5
8. A student comes to you and tells you that his food taste "gross." How would you handle this?	1 2 3 4 5
9. Why is it important to follow "standardized" recipes in a foodservice operation?	1 2 3 4 5
10. Do you have a food safety certification? Example "ServSafe." If not, tell us what food safety training you've had.	1 2 3 4 5
11. What do you like about the present or a prior foodservice position?	1 2 3 4 5
12. Do you have any questions?	1 2 3 4 5

Rate your skills in the following areas, with 1 being the lowest and 5 being the highest, and describe why you rated yourself as you did:

Skills	Rating (Circle One)	Comments
13. Customer Service	1 2 3 4 5	
14. Organization	1 2 3 4 5	
15. Cashiering	1 2 3 4 5	
16. Cooking	1 2 3 4 5	
17. Baking	1 2 3 4 5	

Total Score: _____

Individual Mentoring Form

Mentoring is a special partnership between two people who share mutual responsibility and accountability to achieve clearly defined goals. It can be an important and effective way to grow and develop an SN staff.

The Individual Mentor Plan allows SN managers to work closely with SN staff to identify career-related goals to move individuals along their identified professional path, using the competencies, knowledge, and skills resource as a guide. The Individual Mentor Plan should be completed by both a mentor (SN manager's supervisor, SN director, or another SN manager) and a mentee (SN Technician/Assistant).

INSTRUCTIONS

- Part I.** Enter the employee's name, position, timeframe for the mentoring process, and the mentor's name.
- Part II.** The mentor and mentee should work together to help the mentee identify short-term and long-term career goals. The mentor should help the mentee ensure that the goals are specific, measurable, achievable, relevant, and time-bound (SMART). Once those goals have been identified and developed, they should be documented in part II of this form.
- Part III:** The mentor and mentee should utilize the goals established in Part II to complete Part III. Based on the short-term and/or long-term goals identified, the knowledge and skills needed to meet those goals must be identified. The mentor and mentee should work together to identify which knowledge and/or skill will be required to reach the goal, and to identify a path to successful achievement of the knowledge or skill. Building a developmental plan for the mentee requires the following actions:
1. In column one, choose from the drop-down menu the knowledge or skill that the employee needs to develop. You can delete any rows from the list not used by right clicking and deleting row.
 2. In column two, describe the activity (i.e., training course, experience) needed to achieve the knowledge or skill. There may be more than one activity required to gain the knowledge or skill.
 3. In column three, enter a realistic target date for completing each activity listed.
 4. In column four, enter the actual date each activity was completed.
 5. In column five, describe the outcome of your participation in the identified activity. For example, did the mentee gain or improve proficiency in the knowledge or skill?

Note: All the columns will not be filled out at the same time. Columns one (1) through three (3) should be completed during one session with the mentor. Column four (4) will be completed once each identified activity has been accomplished. To complete column five (5), the mentor and mentee should meet to discuss the outcomes of completing all the activities listed for a specific knowledge or skill identified in column one. Once that has been discussed, it can be documented on the plan.

Part IV: The mentor and mentee sign the document.



Competencies, Knowledge, and Skills for School Nutrition Technicians/Assistants Individual Mentor Plan				
Part One: Employee/Mentor Information				
Name:			Mentoring Time Period	
Position:			Mentor's Name:	
Part Two: Employee's Career Goals				
Short-Term Goals (6 months-1 year)				
Long-Term Goals (2-3 years)				
Part Three: Employee's Developmental Needs				
Knowledge or Skills	Developmental Activity	Target Completion Date	Actual Completion Date	Outcome
Choose an item				
Choose an item				
Choose an item				
Choose an item				
Part Four: Signatures				
Employee Signature:			Date:	
Supervisor Signature:			Date:	



Performance Appraisal Template

Employee performance should be documented and periodically evaluated to ensure the job responsibilities are met and employees receive feedback on performance. The performance appraisal is also used to set goals for employee performance.

INSTRUCTIONS:

1. Open the Job Description Template.
2. Go to the File menu and choose Save As.
3. Save the performance appraisal as the file name you prefer.
4. Delete the word Template from the file.
5. Use the drop down menus to choose evaluated items under Essential Duties and Responsibilities and the Knowledge and Skill Requirements. These items should match those chosen in the job description.
6. Save the customized performance appraisal.
7. Complete all sections including Goals and Comments.
8. Employee and supervisor will sign and date the performance appraisal during the private meeting to review the appraisal.



[Insert School Name Here.]

Insert school
logo here.

Performance Appraisal Template

Employee/Reviewer Information			
Employee Name		Department	
Employee ID		Reviewer Name	
Position Held		Reviewer Title	
Last Review Date		Today's Date	

Performance of Essential Duties and Responsibilities	
<p>This section is used to describe the essential duties and responsibilities required of this position. Choose from the drop-down menu in each line of the essential duties and responsibilities for this position. You can delete the red text once you complete this step. You can also delete a line by selecting the row(s) and pressing delete or by right clicking and selecting "Delete Rows." You can also add rows by clicking the "+" by hovering the pointer over the left side of the row. Right click copy and then paste the drop-down menu into the row.</p> <p>RATING: 5= Excellent 4= Good 3= Satisfactory 2= Needs Improvement 1= Poor</p>	
Item	Rating
Choose an item	
Choose an item	
Choose an item	
Choose an item	
Choose an item	

Knowledge and Skill Requirements

This section is used to describe the knowledge and skills required to perform a job. Choose from the drop-down menu in each line of the essential duties and responsibilities for this position. You can delete the red text once you complete this step. You can also delete a line by selecting the row(s) and pressing delete or by right clicking and selecting "Delete Rows." You can also add rows by clicking the "+" by hovering the pointer over the left side of the row. Right click copy and then paste the drop-down menu into the row.

RATING:

5= Excellent

4= Good

3= Satisfactory

2= Needs Improvement

1= Poor

Item	Rating
Choose an item	
Choose an item	
Choose an item	
Choose an item	
Choose an item	

Characteristics

QUALITY	Poor	Needs Improvement	Satisfactory	Good	Excellent
Quality of work					
Takes initiative					
Honesty					
Coworker relations					
Client relations					
Dependability					
Punctuality					



Goals	
Achieved Goals in Previous Review	
Goals for Next Review Period	
Comments and Approval	
Employee Signature:	Date:
Supervisor Signature:	Date:



The USDA Child Nutrition Program's Professional Standards Training Tracker Tool

The USDA Professional Standards for All School Nutrition Employees require at least six hours of annual training for SN staff who work at least 20 hours per week, and at least four hours of annual training for SN staff who work less than 20 hours per week. Those who are hired after January 1 must complete half of the required training hours. For additional information on Professional Standards, please visit the USDA Professional Standards site at www.fns.usda.gov/school-meals/professional-standards. The USDA Child Nutrition Program's Professional Standards Training Tracker Tool (PSTTT) <https://pstrainingtracker.fns.usda.gov/> is designed to assist SN professionals in keeping track of their annually required training hours.



CHAPTER 3

SUPPLEMENTARY INSTITUTE OF CHILD NUTRITION RESOURCES

1. FREE TRAINING RESOURCES
2. FREE ONLINE COURSES



Institute of Child Nutrition Training Resources to Meet Competencies, Knowledge, and Skills of Effective School Nutrition Assistants/Technicians

The ICN has many free training resources that can assist SN managers in training SN assistants/technicians. The No Time to Train series (<https://theicn.org/school-nutrition-programs/>) provides 34 short lessons for SN assistants/technicians. The format for No Time to Train lessons includes an overview, preparation checklist, lesson at-a-glance (with timeline for conducting the lesson), references, and instructor's script. The manager/instructor uses the script to present each lesson to the participants. The script gives directions to the manager/instructor—DO, SAY, ASK, LISTEN, and ACTIVITY—to deliver each lesson. No special audiovisual or electronic equipment is needed to conduct the lessons. They can be presented in the cafeteria, media center, or classroom.

The ICN also has free, self-paced online courses that can be used to meet competencies, knowledge, and skills. The courses are available at <https://theicn.org/icn-elearning/>. The table on the following pages shows suggested ICN online courses, **highlighted in green**, to assist SN assistants/technicians in meeting the competencies, knowledge, and skills.



FUNCTIONAL AREA 1: EQUIPMENT USE AND CARE

COMPETENCIES	KNOWLEDGE AND SKILL STATEMENTS
1.1 Selection and Operation	<p>1.1a Demonstrates the ability to select the correct foodservice equipment for the food product being prepared. Culinary Techniques Series (Introduction, Preparing Fruits, Vegetables, Salads, Preparing Entrée Items, Preparing Soups, Eggs, Dairy, Sauces, Preparing Breads and Baked Goods, Using Seasonings)</p> <p>1.1b Demonstrates the ability to operate foodservice equipment appropriately.</p>
1.2 Maintenance	<p>1.2a Understands the importance of routinely monitoring foodservice equipment and reports issues to supervisor.</p> <p>1.2b Demonstrates ability to take apart and re-assemble assigned foodservice equipment as appropriate for maintenance and repair.</p>

FUNCTIONAL AREA 2: FOOD PRODUCTION

COMPETENCIES	KNOWLEDGE AND SKILL STATEMENTS
2.1 Units and Measures	<p>2.1a Knows units of measurement (pound, cup, etc.) used in preparation/production and demonstrates the ability to make appropriate conversions and sizing adjustment, as needed. Basic Culinary Math Series: Operations with Whole Numbers, Operation with Fractions, Operations with Decimals, Measurement, Conversions, Scaling Recipes, Calculating Food Cost, Recipe Adjustments</p>
2.2 Preparation and Production	<p>2.2a Knows and demonstrates basic food preparation techniques used in producing large quantities of food items. Culinary Techniques Series (Introduction, Preparing Fruits, Vegetables, Salads, Preparing Entrée Items, Preparing Soups, Eggs, Dairy, Sauces, Preparing Breads and Baked Goods, Using Seasonings)</p> <p>2.2b Knows and demonstrates the ability to prepare food products following standardized recipes. FBG Model 2: Recipe Analysis Workbook (RAW)</p> <p>2.2c Knows and demonstrates the ability to prepare meals for special diets according to recipes or other instructions provided by manager or supervisor. Food Allergies in SNPs—General Food Allergies Food Allergies in SNPs—Reading Food Labels</p> <p>2.2d Understands the importance of and demonstrates proper portion control. Portion Control</p>

CHAPTER 3: SUPPLEMENTARY INSTITUTE OF CHILD NUTRITION RESOURCES

FUNCTIONAL AREA 2: FOOD PRODUCTION

COMPETENCIES	KNOWLEDGE AND SKILL STATEMENTS
2.3 Quality Control	<p>2.3a Knows the importance of and demonstrates proper procedures for monitoring and evaluating all foods (received and produced) to ensure quality standards are achieved.</p> <p>2.3b Knows the importance of reporting quality issues to appropriate individuals and demonstrates the ability to identify plans to address the issues.</p> <p>2.3c Demonstrates proper procedures for monitoring plate waste and reporting observations to the supervisor.</p>
2.4 Inventory Control	<p>2.4a Knows the importance of and demonstrates proper procedures for FIFO when managing inventory Inventory Management—Controlling Costs</p> <p>2.4b Demonstrates proper procedures for taking physical inventory of food supplies to determine needed quantities for ordering. Inventory Management—Controlling Costs</p>

FUNCTIONAL AREA 3: FOOD SAFETY AND SANITATION

COMPETENCIES	KNOWLEDGE AND SKILL STATEMENTS
3.1 Food Safety and Sanitation	<p>3.1a Knows the importance of and demonstrates appropriate personal hygiene practices for SN operations. Best Practices in SFSP—Personal Hygiene</p> <p>3.1b Knows the importance of and demonstrates proper procedures for safe food handling. Best Practices in SFSP—Time and Temperature Control Food Safety in Schools Introduction to HACCP for SNPs</p> <p>3.1c Knows the importance of and demonstrates proper procedures for cleaning and sanitizing food contact surfaces. Best Practices in SFSP—Cleaning and Sanitizing Norovirus for Schools</p>

FUNCTIONAL AREA 4: PERSONAL CHARACTERISTICS

COMPETENCIES	KNOWLEDGE AND SKILL STATEMENTS
4.1 General	<p>4.1a Demonstrates willingness to be flexible. <i>School Nutrition Staff: You Are a Team</i></p> <p>4.1b Knows the importance of and demonstrates proper procedures for maintaining confidentiality regarding school and workplace matters.</p> <p>4.1c Demonstrates ability to work under the pressure of deadlines and with interruptions. <i>Effective Goal Setting Using SMART Goals</i></p> <p>4.1d Knows the importance of and demonstrates the ability to work with a diverse school community. <i>Focus on the Customer for School Nutrition Managers</i> <i>Civil Rights in Child Nutrition Programs</i></p>
4.2 Communication	<p>4.2a Demonstrates effective oral and written communication. <i>Presentation Fundamentals—Tips for New Speakers</i> <i>Adult Learning</i></p> <p>4.2b Demonstrates appropriate uses of lines of communication within the school and school district, including chain of authority and levels of job responsibilities. <i>Communication Skills for Managers</i></p> <p>4.2c Demonstrates the ability to positively resolve conflict. <i>Human Resource Series—Dealing with Conflict in the Workplace</i></p> <p>4.2d Demonstrates a professional manner when interacting with co-workers, school staff, students, and others. <i>School Nutrition Staff-You Are a Team</i> <i>Coaching</i></p>
4.3 Customer Service	<p>4.3a Understands the importance of being responsive to student preferences and requests and demonstrates timely and helpful feedback to supervisor regarding these interactions. <i>Focus on the Customer for School Nutrition Staff</i></p>
4.4 Basic Math and Technology Skills	<p>4.4a Demonstrates ability to add, subtract, multiply, and divide <i>Basic Culinary Math: Conversions</i> <i>Basic Culinary Math: Calculating Food Cost</i> <i>Basic Culinary Math: Operations with Decimals</i> <i>Basic Culinary Math: Operations with Whole Numbers</i></p> <p>4.4b Demonstrates the ability to utilize a computer to check email.</p>
4.5 Judgement	<p>4.5a Understands the importance of following the chain of command to report potential problems or unusual events.</p>



FUNCTIONAL AREA 5: USDA MEAL PROGRAM REQUIREMENTS

COMPETENCIES	KNOWLEDGE AND SKILL STATEMENTS
5.1 Reports and Records	<p>5.1a Understands and demonstrates proper procedures for handling money and operating the point of sale/cash register.</p> <p>5.1b Knows meal pattern requirements for a reimbursable meal. Meal Patterns</p> <p>5.1c Understands and demonstrates proper procedures for completing production records. Meal Patterns</p>

FUNCTIONAL AREA 6: WORKPLACE AND EMPLOYEE SAFETY

COMPETENCIES	KNOWLEDGE AND SKILL STATEMENTS
6.1 Work Environment	<p>6.1a Knows the importance of and demonstrates proper procedures for maintaining clean and organized work and storage areas. Food Safety in Schools</p> <p>6.1b Knows the importance of and demonstrates proper procedures related to the protection of the environment.</p> <p>6.1c Knows the importance of and demonstrates proper procedures for using Safety Data Sheets.</p>
6.2 Employee Safety	<p>6.1a Demonstrates proper procedures for lifting and carrying.</p>

References

Nettles, M. F. and Carr, D. (2006). Competencies, Knowledge and Skills of Effective School Nutrition Assistants and Technicians. University of Mississippi. National Food Service Management Institute.

United States Department of Agriculture. Food and Nutrition Service. (n.d.) Professional Standards for All School Nutrition Program Employees. Retrieved from: <https://www.fns.usda.gov/cn/professional-standards>





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