

**School Nutrition and Meal Cost  
Study (SNMCS)**

Contract Number:  
AG-3198-C-13-0001

**OMB Supporting Statement**  
**Part A**

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  - requiring respondents to submit more than an original and two copies of any document;
  - requiring respondents to retain records, other than health, medical, government contract, grant-in-aid, or tax records for more than three years;
  - in connection with a statistical survey, that is not designed to produce valid and reliable results that can be generalized to the universe of study;

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## **PART A. JUSTIFICATION**

**A.1. Explain the circumstances that make the collection of information necessary. Identify any legal or administrative requirements that necessitate the collection. Attach a copy of the appropriate section of each statute and regulation mandating or authorizing the collection of information.**

The school meal programs administered by the Food and Nutrition Service (FNS) of the U.S. Department of Agriculture (USDA) are a cornerstone of the nation's nutrition safety net for low-income children. FNS has long been committed to ensuring that the meals provided in schools are healthful and contribute to children's dietary requirements. The School Nutrition and Meal Cost Study (SNMCS) will continue the long-standing commitment of FNS to periodically assess the school meal programs.

The SNMCS comes at a time of unprecedented change for the National School Lunch Program (NSLP) and School Breakfast Program (SBP). In the 2012-2013 school year (SY), the school meal programs began to undergo far-reaching changes, mainly stemming from the Healthy, Hunger Free Kids Act (HHFKA, Public Law 111-296). Key reforms stemming from this legislation include new, more stringent meal pattern and nutrient requirements for school meals, new offer-versus-serve (OVS) rules, gradually increased prices for paid meals, and the introduction of nutrition standards for competitive foods. School foodservice practices are being revised dramatically. Changes in practices, prices, and available foods may influence which students participate in the programs. The new requirements are intended to alter the nutrient content of USDA meals and snacks and to improve participating

students' nutrient intake. Complying with the new requirements might affect the costs of producing school lunches and breakfasts.

With the implementation of the new meal patterns, nutrition requirements, and other changes, FNS has to determine the success of school meals in meeting the program goals set by the new standards, the cost of serving healthful meals that are acceptable to children, and the relationship of the school meals and competitive foods to children's participation in the programs and dietary quality. The SNMCS will be the first assessment of school meals after implementation of these major changes. Conducting the SNMCS at this historic juncture will provide FNS with crucial information about the effects of the new meal standards on nutritional quality and the cost of school meals. No national study has simultaneously examined the cost of producing and serving healthy meals children will eat. The SNMCS will provide this much-needed information. In addition, the SNMCS will, for the first time, examine plate waste in a nationally representative sample of schools. This will enable FNS to assess students' acceptance of meals that comply with the new meal pattern and nutrient requirements.

Congress recognized the importance of these issues of nutrition and costs in the school lunch program, and in Section 305 of the HHFKA required participants in programs authorized under the HHFKA and the Child Nutrition Act of 1966 (42 U.S.C. 1771 et seq.) to cooperate with program research and

evaluation being conducted on behalf of the USDA Secretary under those Acts.

**A.2. Indicate how, by whom, how frequently, and for what purpose the information is to be used. Except for a new collection, indicate the actual use the agency has made of the information received from the current collection.**

The SNMCS will collect a broad range of data from nationally representative samples of public school food authorities (SFAs), schools, students, and parents during SY 2014–2015. These data will provide needed information about how federally sponsored school meal programs are operating after implementation of the new nutrition standards and other changes in regulations. Comparisons of results from the SNMCS with previous School Nutrition and Dietary Assessment (SNDA; OMB Control Number 0584-0527, Discontinued 09/30/2012) and School Lunch and Breakfast Cost (SLBC; OMB Control Number 0584-0533, Discontinued 04/30/2008) studies will provide information that can be used to assess the effects of the new nutrition standards on foodservice operations, the nutrient content of school meals as offered and served, meal costs and revenues, and student participation and dietary intake. The SNMCS will explore both the nutrition and cost domains of school meals in an integrated design.

The SNMCS will address numerous research questions under four broad study objectives of interest to USDA, the States, SFAs, and other program stakeholders:

1. Describe SFA and school environments, foodservice operating policies and practices, student participation in school meal

programs, and other characteristics of SFAs and schools participating in the NSLP and SBP.

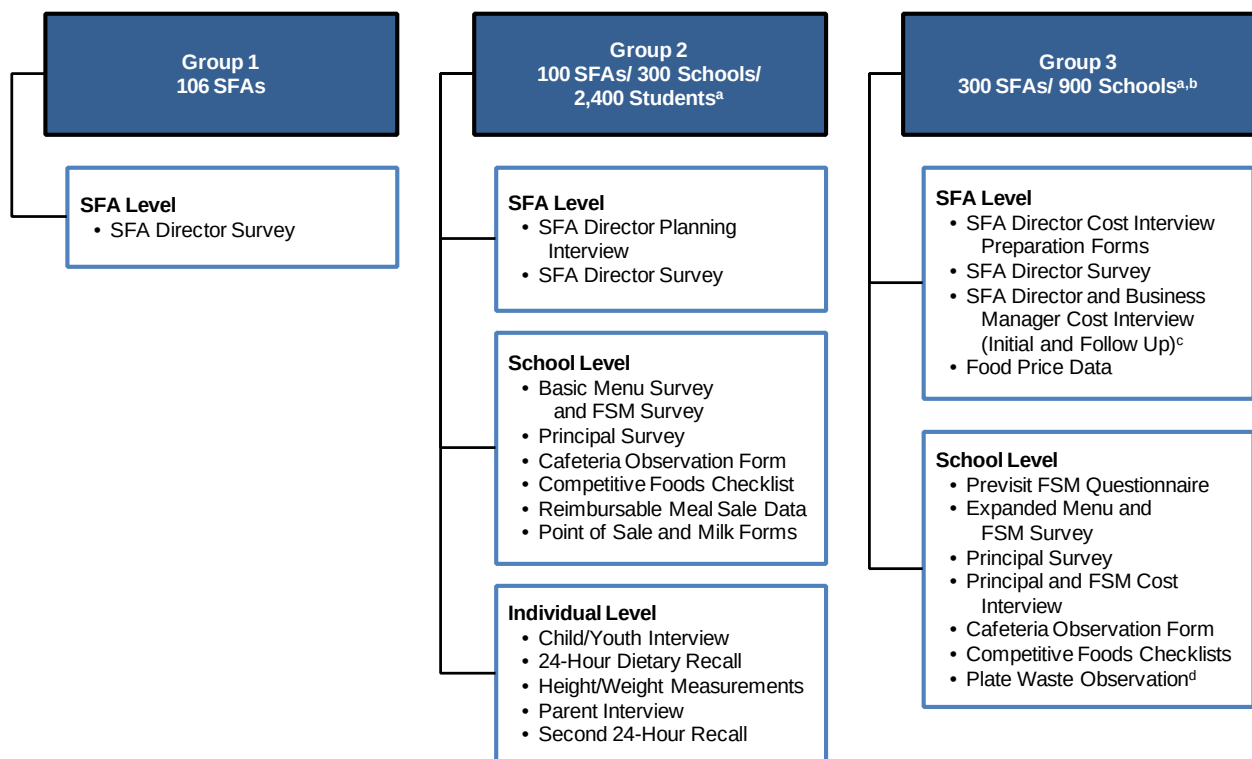
2. Determine the food and nutrient content of school meals and snacks offered and served and examine compliance with new meal standards.
3. Determine the cost to produce reimbursable school meals (including indirect and local administrative costs) and examine ratios of revenues to costs.
4. Describe and assess student characteristics, participation in the meal programs, satisfaction with the foods provided (including plate waste), and dietary intake.

In addition to providing nationally representative findings on the NSLP and SBP within these four broad areas, the SNMCS will assess the effects of the new meal patterns and nutrient requirements within each topic area by examining how characteristics and outcomes have changed since implementation of the new standards. This will be accomplished by comparing findings from the SNMCS with findings from SNDA and SLBC studies conducted before implementation of the new standards. Finally, the integrative structure of the SNMCS will support analysis of the relationships among these substantive areas, especially among nutritional quality of meals, meal cost, and student participation.

On behalf of FNS, the information for the SNMCS will be collected and analyzed by Mathematica and its subcontractors Abt Associates, Agralytica, and Relyon Media. The table in Appendix A summarizes our data collection plan at the instrument level by study objective, respondent, target number of completed interviews, mode, burden, and response rates.

The SNMCS sample will include 502 unique SFAs, 1,200 schools, 2,400 students and their parents, and plate waste observations of 5,040 lunches and 3,360 breakfasts. The sample frame of SFAs is divided into three groups, as illustrated in Figure A.1. Group 1 consists of 106 SFAs and no schools, Group 2 consists of 100 SFAs and 300 schools, and Group 3 consists of 300 SFAs and 900 schools (with 4 individual SFAs included in both Groups 2 and 3).

Figure A.1. Summary of Data Collection Plan



<sup>a</sup> The Groups 2 and 3 samples include 396 unique SFAs. Four certainty SFAs will be included in Groups 2 and 3, contributing 12 unique schools each to Group 2 and Group 3 school samples.

<sup>b</sup> Competitive Foods Checklists and plate waste observations will be completed in 460 and 168 Group 3 schools, respectively.

<sup>c</sup> State education or child nutrition agencies will be contacted to provide information on indirect cost rates of SFAs in their States—what the SFAs’ reported costs cover and whether unreported costs are direct or indirect.

<sup>d</sup> Plate waste observations will be conducted in a subsample of 56 SFAs and 168 schools from Group 3.

Sampled SFAs will be recruited to participate in school-level data collection (Appendix C for SFA and school recruitment materials). Group 2 SFA directors who agree to participate in school-level data collection will complete a brief telephone planning interview (Appendix D1) to provide key information about the SFA and the schools sampled for data collection. Group 3 FSMs will complete a pre-visit telephone interview (Appendix D2). All recruitment calls and interviews will be completed by staff from Mathematica, Abt, and Agralytica.

Recruitment of students and parents will initially be coordinated through the districts to streamline the process and establish a consistent approach across the districts' sampled schools. We will obtain student rosters to use in selecting the sample; when feasible, we will obtain these rosters at the district level. We plan to use a consent process that provides parents or students the opportunity to decline to participate.<sup>1</sup> We will contact designated Group 2 school liaisons before any direct outreach to parents and students; if necessary, we will request student rosters from these liaisons directly if they are unavailable from districts.

Typically, we will mail (or use another distribution method if the school prefers) each selected household an introductory packet (Appendix L) that includes an invitation letter, a letter from the principal or district endorsing the study (if available), a study brochure tailored to parents with answers to

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<sup>1</sup> Generally speaking, fewer people opt out of opportunities than opt in. Therefore the risk of nonresponse bias may be lower with the proposed approach because a smaller share of the sample will opt out. Weights will be constructed to adjust for differences between participants and nonparticipants.



frequently asked questions, a toll-free telephone number they can use to obtain further information, and a link to a study Facebook page to learn more about the study. The packet will also include parental consent and child assent forms (Appendix M). Parents or students who do not wish to participate can return their signed forms in a postage-paid return envelope addressed to Mathematica, which we will also include in this packet.

Most data will be collected from January to June 2015. This timing will condense data collection on student dietary intake and the nutrient content and cost of school meals to as narrow a period as possible and will provide consistency with data collection periods in the SNDA-III, SNDA-IV, and SLBCS-II studies. Planning and pre-visit interviews will be conducted from September to December 2014. Follow-up interviews with Group 3 SFAs to collect final data on costs and revenues for SY 2014–2015 will be completed in the fall and winter of SY 2015–2016.

In the sections that follow, we describe the study’s plans for each component of the data collection.

**a. Menu Survey**

Foodservice managers (FSMs) in Group 2 and 3 schools will be asked to complete a Menu Survey for a school week (the “target week”), providing detailed information about the foods and beverages offered and served in school breakfasts; lunches; and, if offered, afterschool snacks (Appendix H). The data collected in the Menu Survey will be used to assess the food and nutrient content of reimbursable meals and snacks and to determine the cost

of producing reimbursable lunches and breakfasts. Menu Survey data will also contribute to the assessment of dietary intakes for school meal program participants and plate waste. Group 2 schools will complete a Basic Menu Survey (Appendix H1); Group 3 schools will complete an Expanded Menu Survey (Appendix H2). The expanded survey will collect all of the information collected through the basic survey and additional information such as amounts of nonreimbursable, self-serve, and made-to-order food supplied to students, needed for the cost analysis.

We will conduct both versions of the Menu Survey in a self-administered web format (the Electronic Menu Survey [EMS]), which enables FSMs to provide detailed information about the foods offered and served in reimbursable meals and snacks in an easy-to-use electronic tool that can be completed on an ongoing basis over the study week. FSMs will receive training before completing the Menu Survey using brief, modular, online training videos. The EMS will also provide links to written instructions if additional assistance is needed or if the FSM's computer does not have audio capabilities. Technical assistants at Mathematica will follow up with FSMs during their target week as needed to ensure that the Menu Survey is completed in a timely manner. Although we anticipate that most FSMs will complete the Menu Survey online, we are prepared to provide a hard copy version of the survey for respondents who do not have Internet access or who prefer completing a paper version.

**b. SFA Director, Principal, and FSM Surveys and Interviews**

SFA directors in all three sample groups, along with principals and FSMs in Groups 2 and 3, will provide data needed to characterize the school environment; foodservice operating policies and practices; and other characteristics of SFAs, schools, and students. We will collect these data using self-administered web-based surveys (Appendix F). SFA directors, principals, and FSMs in Group 3 will also be asked to provide information required for the estimation of meal costs, including indirect and administrative costs. We plan to collect these additional SFA- and school-level data using in-person and telephone interviews (Appendices D3-D8 and E).

The surveys will obtain information from SFAs and schools about their experiences and perceptions implementing the new meal pattern and nutrient requirements. Some questions will address the types of training and technical assistance (TA) provided by the State agency responsible for the school meal programs, FNS Regional Office, or private contractors to SFA directors or staff, as well as types of training provided to FSMs and school staff (by the SFA director or others). Other questions will seek SFA directors' impressions of the new meal requirements, challenges to implementing these requirements, and the training or TA received in this area.

We will mail Group 1 SFA directors an introductory letter about the study and an email invitation (Appendix G) to complete the SFA Director Survey (Appendix F1) on the web. We will remind these directors through a

combination of email, postcard and telephone to encourage participation and will offer assistance through a toll-free help line and project email address. If necessary, interviewers will contact members of the sample who have not responded to administer the survey over the telephone, entering their responses into the web survey during the conversation. We will field Group 1 SFA Director Surveys concurrently with activities in Groups 2 and 3, described below.

Collection of data from SFA- and school-level staff in each sampled Group 2 and 3 SFA will take place in stages. The FSM Survey (Appendix F2) will be integrated into the EMS for respondent ease and will be completed in conjunction with the EMS (or the paper menu survey, for those FSMs who prefer). SFA directors in Group 2 and 3 schools will be invited to complete the SFA Director Survey (Appendix F1) during or shortly after the target week. (We will know, from the EMS, when FSMs complete the Menu Survey; we will avoid overburdening Group 3 SFA directors with the survey until they have completed the cost interview). The reason for delaying the SFA Director Survey until this time is to ensure that the data collected about districts' six-cents certification status are accurate for the period covered in the target week. We will deploy the Principal Survey (Appendix F3) on a similar schedule to the SFA Director Survey. As with SFA director data collection activities, we will coordinate schedules so that principals are not burdened simultaneously with both the cost interview (described below) and survey. Our survey follow-up efforts with these groups will replicate those employed

with Group 1 SFA directors; we will use email, postcard, and telephone reminders, and interviewers will offer to complete the survey by telephone if necessary to ensure high response rates.

The cost interviews in Group 3 SFAs and schools will also be collected in stages. During recruitment, key information about the structure of foodservice operations will be collected from SFA Directors. Previsit Questionnaires will be completed by telephone with and FSMs (Appendix D2). The SFA Director and Business Manager Cost Interview (Appendices E1-E5, E7) and the Foodservice Manager Cost Interviews (Appendix E6) will be completed in person with those individuals by contractor staff when they are on site. (There will be one SFA-level cost interview for each SFA. Whether the appropriate respondent is the SFA director, business manager, or a combination of the two will be determined during scheduling.) The School Principal Cost Interview (Appendix D3) will be conducted by telephone during or near this same period.

Although SFA directors and business managers know their indirect cost rates, they are less knowledgeable about what the rates cover, which is important when determining what the SFA's reported costs include and whether unreported costs are direct or indirect. For Group 3, the primary source of this information will be a brief survey of State education or child nutrition agencies (SAs) before the field interviews. For the School Foodservice Indirect Cost Study (SFICS) conducted for FNS Assessment (SFICS; OMB Control Number 0584-0568, Expiration 07/31/2015), data on

indirect cost composition have been collected from SAs for SY 2011–2012. For the SNMCS, SAs will be sent and asked to review their data from the SFICS. Research assistants will call the SAs to confirm or update the information for SY 2014–2015 (Appendix D4). If the SA does not have the relevant information, a supplementary module on the composition and coverage of indirect costs will be completed during the SFA Director and Business Manager Cost Interview.

The Follow-Up SFA Director Cost Interview (Appendices D5–D8) will confirm final SY 2014–2015 revenues and reported expenses and update information on unreported costs that might have changed since the in-person interviews (for example, changes in plans to recover indirect costs). SFA directors or business managers will be interviewed by telephone from October 2015 to January 2016, depending on SFAs' schedules for finalizing revenue and expense statements. (Information about when final financial statements for SY 2014–2015 will be available will be collected as part of the initial SFA Director and Business Manager Cost Interview.) We will contact SFAs by telephone and email at the indicated time and ask them to email or fax the financial statements to us with the SFA Follow-up Cost Interview Preparation Form (Appendix D5). After we receive the financial statements, interviewers will enter the data into an electronic revenue and expense form. Interviewers will use web-based screen or document sharing so that interviewers and respondents can refer to the completed form and revise it during the interview.

**c. Competitive Foods Checklists and Cafeteria Observations**

The Competitive Foods Checklists and Cafeteria Observations (Appendices H3, H4, J, K, P1) will collect information about the types of foods available in competitive foods venues and characteristics of the cafeteria environment. We will use four different observational tools (and their respective instructions) to collect data on the school foodservice environment and the availability of competitive foods: (1) the A la Carte Foods Checklist (Appendices H3 and H4), (2) the Simple or Enhanced Vending Machine Checklist (Appendices K1 and K2), (3) the Other Sources of Foods and Beverages Checklist (Other Sources Checklist) (Appendix K3), and (4) the Cafeteria Observation guide (Appendix P1). The first three instruments (collectively called the Competitive Foods Checklists) will document the presence of competitive food venues in schools and the specific foods and beverages available in each venue. FSMs will complete the A la Carte Foods Checklist as part of the EMS Menu Survey on one randomly selected day during the target week. School liaisons will complete the Vending Machine Checklist and Other Sources of Foods and Beverages Checklist in all Group 2 schools and a subset of 460 Group 3 schools. Training will be provided with the Competitive Foods Training Module (Appendix J).

The Cafeteria Observation Guide will collect observable information about the characteristics of school cafeteria facilities, including the availability of potable water, and will capture use of Smarter Lunchroom techniques

encouraged by the HealthierUS School Challenge (HUSSC), such as creatively naming menu items to make them sound more appealing and using attractive signs and displays to encourage fruit consumption. Study contractor staff will complete the Cafeteria Observation guide during their time on site. (While this form is completed by contractor staff, it does require a degree of interaction with the FSM to ensure that the correct information is being captured and coded.) They will observe a randomly selected breakfast period (or up to 30 minutes of breakfast service if there is no designated breakfast period) and one randomly selected lunch period.

In Group 3 schools, there will be some overlap in collection of data on competitive foods. In these schools, FSMs will also provide, through the EMS, detailed information about the types and amounts of competitive foods sold during the target week. Although in theory these data could be used to address questions about competitive foods, we cannot rely on them because they will not be collected in Group 2 SFAs. Moreover, we believe it is important to maintain general comparability with SNDA-IV to permit an assessment of change between SY 2009–2010 and SY 2014–2015. Instructions in the EMS will point this out and explain that the A la Carte Checklist, a very simple form completed on just one randomly selected day during the target week, is needed for comparisons to prior studies.

#### **d. Student and Parent Interviews**

In Group 2 schools, we will interview students and their parents to collect information on student characteristics, dietary intake, and participation and



satisfaction with school meals. A 24-Hour Dietary Recall will collect information on students' dietary intakes. Data on student characteristics, participation in the school meal programs, and satisfaction with school meals will be collected in the Child/Youth and Parent Interviews (Appendices N3/4 and N5/6). Data collection activities will differ somewhat for elementary school students, and middle and high school students. We generically refer to *parents* for discussion purposes, recognizing that responding individuals might actually be legal guardians or other caregivers who are the most familiar with what students eat outside of school. We also refer to elementary school students as children and to middle and high school students as *youth*.

**d.1. 24-Hour Dietary Recalls**

Our approach to collecting 24-Hour Dietary Recalls is tailored to children’s cognitive abilities and is designed to maximize response rates and efficiency. Our approach builds on experiences from SNDA-I and SNDA-III. All recalls will ultimately measure dietary intakes during a midnight-to-midnight recall period of a target day. Youth (students in middle and high schools) will complete the 24-hour recall independently in one interview. Because younger children report their intakes more accurately when they are interviewed shortly after a meal (Baxter et al. 2004), we will follow the approach used in SNDA-III and complete 24-hour recalls for elementary school children in two parts. The first part, completed on the target day as soon as possible after lunch, will cover food and beverages consumed from the time of waking through lunch. The second part, completed with parental assistance the following day (or within 48 hours of the target day), will cover foods and beverages consumed during the rest of the target day (from midnight to the time the child woke up [if any] and after the child was interviewed on the recall day). Parents of elementary school children will be provided with a non-quantitative food diary (Appendix N1/2) to serve as a memory aid. In schools spanning elementary and middle school grades, such as kindergarten through 8th grade, we will follow the child recall protocol for all students.

In each school, we will draw a sample of students greater than the targeted number of completes to accommodate nonrespondents and

ineligible cases. For example, students absent on the target recall day will be treated as nonrespondents. (If eligible, sampled students are not available at the planned interview time (for example, if they are taking a test); we will make every effort to schedule make-up interviews. If a make-up interview is not possible, we will replace the student with one from the reserve sample.) Approximately 12 percent of the students will be scheduled for a Saturday interview to capture dietary intake on Fridays.<sup>2</sup> Saturday interviews might be conducted at school, the student's home, or a public library. Friday recalls begun in school with children will be completed with parental assistance over the weekend.

A second day of dietary intake data is needed for a representative subset of students to estimate usual food and nutrient intake. We will collect second recalls by telephone, an approach that is consistent with procedures for the 2011-2012 National Health and Nutrition Examination Survey (NHANES) (CDC 2012). Telephone recalls avoid nonresponse associated with missed interview appointments and minimize disruptions in schools. Telephone recalls will be completed in a single administration regardless of the age of the sample member. The Child's Food Diary will be used to aid the recall of parents reporting on the intake of their child.

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<sup>2</sup> We will explore whether Saturday participants differ systematically from weekday participants on observed characteristics and may adjust for differences in the analyses.

We will use USDA’s Automated Multiple-Pass Method (AMPM) computer-assisted personal interview (CAPI) to collect dietary recalls. (A brief description of AMPM and screenshots are included as Appendix N7.) The AMPM is currently used to collect dietary intake data for the What We Eat in America component of the NHANES and is the same instrument we used in SNDA-III. The recall will be conducted in English or Spanish.<sup>3</sup> Contractor staff will use a Food Model Booklet, measuring cups and spoons, and a ruler to assist students in reporting portion sizes. The Food Model Booklet includes two-dimensional drawings of various sizes of glasses, mugs, bowls, mounds, circles, and other shapes.

Before conducting the recalls in a school, contractor staff will complete three activities:

1. Complete a Point of Sale (POS) Form (Appendix P2) to record the physical locations in a school where students can obtain food and code each location into a common coding structure that will distinguish between those that sell reimbursable or nonreimbursable items (or both). (While this form is completed by contractor staff, it does require a degree of interaction with the FSM to ensure that the correct information is being captured and coded.) During the recall, AMPM will prompt the interviewer to ask for the specific source for foods obtained at school, and the interviewer will enter the corresponding code from the POS Form into AMPM.
2. Complete a Milk Form (Appendix P3), which lists the percentage of fat, flavor, cap or carton color, and quantity of each type of milk offered with reimbursable meals or sold a la carte. Contractor staff will use this form to assist students in naming the types of milk they obtained or the size of the container. Students may know the color of the milk containers but not the fat content of the milk. For example, if a student reports consuming milk from a blue container,

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<sup>3</sup> When possible, we will conduct interviews in other languages with the assistance of a third-party translator, but do not intend to have staff translators on the project.

contractor staff will refer to the Milk Form to record in AMPM that the student consumed one cup of fat-free milk.

3. Obtain copies of the school lunch menus and breakfast menus (if offered) for the target recall day from the FSM. The school menu will be consulted if a student reports taking a school meal but has difficulty recalling the specific foods consumed. Where applicable, contractor staff will also attempt to obtain copies of future menus to assist with the subsample completing the second recall interview.

#### **d.2. Child/Youth and Parent Interviews**

Both sampled students and their parents will complete an interview to collect information on the reasons for participating or not in school meals, perceived stigma of receiving free or reduced-price meals, and satisfaction with the meals. All sampled students will complete a Child/Youth Interview (Appendix N3/4), and the parent of each sampled student will complete the Parent Interview in English or Spanish (Appendix N5/6). The Parent Interview includes questions on demographics and participation in other nutrition assistance programs that would not be appropriate to ask children. Parents will also be asked questions about their global satisfaction with school meals and specific issues, such as whether they receive enough information about the meals, whether they believe the meals are healthy, and what perceptions they have the school food environment (for example, the types and availability of a la carte, vending machines, and other competitive foods sources).

#### **e. Plate Waste Observations**

Through plate waste observations, we can use the SNMCS to estimate the amounts and proportion of foods wasted by students and to assess the

relationship between plate waste and student characteristics. In addition, plate waste observations will provide data for integrative analyses that will address key questions about the relationships between plate waste and characteristics of school food environments and school foodservice operations, including compliance with new nutrition standards, length of meal periods, and meal cost.

Contractor staff will use the hard copy Plate Waste Observation Booklet (Appendix P4). (While this booklet is completed by contractor staff, it does require a degree of interaction with the FSM to confirm the foods offered and what constitutes a reimbursable meal.) In collecting plate waste data, we will use visual observation and measurement of liquids wasted. We will enhance the visual observation by using portioned servings of foods purchased by contractor staff as a point of reference. We will measure liquids wasted with measuring cups or the serving container, such as a milk carton. Contractor staff will access the EMS after FSMs have completed it on the observation day to link the foods in the plate waste observations to those reported in the EMS. This will facilitate the creation of analysis files that link nutrient and food group data from the Menu Survey analysis file to foods observed to have been taken and wasted by sampled students.

**f. Other Data Collection**

**Reimbursable Meal Sale Data Request.** The Reimbursable Meal Sale (RMS) Data Request will solicit, for all sampled students in Group 2 schools, whether the student received a reimbursable meal at breakfast or lunch, the

date of the transaction, the student ID and name, and meal certification status. This information will be collected from school point-of-sale (POS) systems. The information on this form will be used to determine target-day school meal participation and meal certification status among sampled students. An RMS Data Request Form (Appendix I) will document information collected via verbal requests from cashier or FSM respondents. The form will include written instructions specifying the data needed and a short set of items to complete regarding the status of RMS data receipt among schools with these systems. The items will indicate whether RMS data were provided and, if they were not provided, why. Contractor staff will complete the form on site on the target day of the 24-Hour Dietary Recall<sup>4</sup> (that is, the day before sampled secondary students are interviewed, and the same day elementary children are interviewed). Contractor staff will work with school liaisons to determine when lunch service has ended and when cashiers and FSMs depart for the day, because contractor staff will meet with cashiers or FSMs face to face in the time between those two events. If the contractor staff are unable to collect RMS data while on site (for example, if scheduling conflicts arise), contractor staff will communicate this to the menu survey TAs. TAs will then request RMS data during the Menu Survey target week.

**Height and weight measurements (Appendix O).** We will collect height and weight data on all sampled students in Group 2 schools. Standing

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<sup>4</sup> Depending on the data collection schedule in an SFA, RMS data might have to be requested on the interview day (requesting yesterday's target day data) for youth, because it might not always be known ahead of time which students will be interviewed on a particular day.

height will be measured with a portable stadiometer or height measuring board modeled after the procedure developed for NHANES (CDC 2007) and other national and international surveys (Shorr 1998). An electronic, digital floor scale will be used to measure weight. Measurements will be completed at the conclusion of the dietary recall and Child/Youth Interviews. Contractor staff will take at least two weight and standing height measurements. A third measurement will be taken if the difference between the first two is greater than one pound or one inch, respectively. Contractor staff will also record any potential issues with the measurements, such as bulky clothing, an arm or leg cast, or students not removing their shoes.

**Administrative data on food prices.** Food prices and the assigned value of USDA Foods (commodities) are needed to determine the costs of food served during the target week in Group 3 schools. The collection of these data will begin during preparations for the target week. In the packet of preparation forms (Appendix E7), the SFA director will be asked to compile documentation of the prices of all foods that the SFA has in inventory or purchased in the month before the target week (for example, bid lists) and all USDA food orders during the three months before the target week. During the SFA Director and Business Manager Cost Interview, the data collector will obtain these documents and complete a checklist to confirm that prices are provided for all expected types of purchases and USDA Foods. During data processing, price coders will review the checklist and the documentation and contact the SFA director if any needed documents are missing.



Ultimately, all the data collected for the study and resulting analyses will culminate in five detailed reports as well as a summary report oriented toward lay audiences. All of these reports will be posted on FNS's website and available to the public.

**A.3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, e.g., permitting electronic submission of responses, and the basis for the decision for adopting this means of collection. Also, describe any consideration of using information technology to reduce burden.**

In compliance with the E-Government Act of 2002, information technology has been incorporated into the data collection to reduce respondent burden. Electronic mail will be used, whenever possible, to communicate with respondents (see, for example, Appendix G). Surveys of SFA directors, FSMs and school principals will be web-based, with an option for telephone completion (Appendix F). We expect that an overwhelming majority of respondents will complete these surveys on the web. Rather than asking school liaisons to participate in a telephone-based training for completion of the Competitive Foods Checklists, we will send them, by e-mail, a web link to a training document (Appendix J) they can review at their convenience.

The Electronic Menu Survey (EMS) will also be web-based, with the option of paper completion (Appendix H). Use of a web-based survey will enable us to reduce respondent burden associated with the organization of paper documents, photocopying completed forms for their records, and transcribing repeated information between forms; a web-based form will also

increase data quality and streamline the process for data retrieval, cleaning, and coding.

We will use USDA’s Automated Multiple-Pass Method (AMPM) computer-assisted personal interview (CAPI) (Appendix N7) to collect data on students’ dietary intakes. The multiple-pass method obtains information from respondents in five standardized steps designed to efficiently collect complete and accurate food intake data while minimizing respondent burden.

**A.4. Describe efforts to identify duplication. Show specifically why any similar information already available cannot be used or modified for use for the purpose described in item 2 above.**

There is no similar data collection available. Every effort has been made to avoid duplication. FNS has reviewed USDA reporting requirements, State administrative agency reporting requirements, and special studies by other government and private agencies. FNS solely administers the school meal programs.

**A.5. If the collection of information impacts small businesses or other small entities, describe any methods used to minimize burden.**

Information being requested or required has been held to the minimum required for the intended use. Although there are small SFAs involved in this data collection effort, they deliver the same program benefits and perform the same function as any other SFA. Thus, they maintain the same kinds of information on file. It is approximated that 200 SFAs or 40% of the selected sample will be small entities.

**A.6. Describe the consequence to Federal program or policy activities if the collection is not conducted or is conducted less frequently, as well as any technical or legal obstacles to reducing burden.**

The proposed data collection activity involves one-time data collection for each respondent. Without this information, FNS will not be able to assess progress toward key strategic goals for the NSLP and SBP or identify related training and technical assistance needs of SFAs and schools.

**A.7. Explain any special circumstances that would cause an information collection to be conducted in a manner:**

- requiring respondents to report information to the agency more often than quarterly;
- requiring respondents to prepare a written response to a collection of information in fewer than 30 days after receipt of it;
- requiring respondents to submit more than an original and two copies of any document;
- requiring respondents to retain records, other than health, medical, government contract, grant-in-aid, or tax records for more than three years;
- in connection with a statistical survey, that is not designed to produce valid and reliable results that can be generalized to the universe of study;
- requiring the use of a statistical data classification that has not been reviewed and approved by OMB;
- that includes a pledge of confidentiality that is not supported by authority established in statute or regulation, that is not supported by disclosure and data security policies that are consistent with the pledge, or which unnecessarily impedes sharing of data with other agencies for compatible confidential use; or
- requiring respondents to submit proprietary trade secret, or other confidential information unless the agency can demonstrate that it has instituted procedures to protect the information's confidentiality to the extent permitted by law.

There are no special circumstances. The collection of information is conducted in a manner consistent with the guidelines in 5 CFR 1320.5.

- A.8. If applicable, provide a copy and identify the date and page number of publication in the Federal Register of the agency's notice, soliciting comments on the information collection prior to submission to OMB. Summarize public comments received in response to that notice and describe actions taken by the agency in response to these comments.**

**Describe efforts to consult with persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting form, and on the data elements to be recorded, disclosed, or reported.**

**a. Federal Register Notice and Comments**

A notice of the proposed information collection and an invitation for public comment was published in the *Federal Register*, 10/03/2013, volume 78, number 192, pages 61325-61329. A copy of the notice is included as Appendix Q. Public comments are in Appendix R.

Several public comments were about potential increased costs and/or reduced student participation in school meals as a result of phasing in the new meals requirements, including one commenter who was specifically concerned about reduced participation among low-income children. SNMCS will provide detailed information about both costs and participation at the national level and within key subgroups (key subgroups include SFA and school enrollment size, poverty level, urbanicity, FNS region,<sup>5</sup> school level, and school meal participants/nonparticipants). In response to these comments, the contractor added an open-ended question to the SFA Director Survey (Appendix F1) to solicit additional feedback from respondents that is not captured elsewhere in the instrument.

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<sup>5</sup> These are the seven regions of the country that administer USDA's food and nutrition programs.

One commenter felt the descriptions of the study plans and procedures were not understandable to the average reader. While the detailed sampling and instrumentation plans for SNMCS are technical, the outreach materials, consent forms, and data collection instruments are written to be appropriate for the target populations. An Institutional Review Board will review materials to ensure their understandability and suitability.

The Academy of Nutrition and Dietetics was supportive of the study and submitted several recommendations. Both the Academy and the National Dairy Council noted that the planned study design might be strengthened if it adopted a quasi-experimental interrupted time series study design (sometimes referred to as a pre-post design) to assess the impacts of HHFKA's new nutrition standards on outcomes. For example, the National Dairy Council recommended that "baseline information within each surveyed school should be collected along with information after implementation of the new nutrition standards to facilitate comparisons and assess impacts (for example, information on schools' expenditures for specific food items such as fruits and vegetables post implementation will provide little meaningful information unless the survey captures the prior level of such spending as a means to measure the impact of changes)."

The SNMCS study will assess the effects of HHFKA's new nutrition standards on nutrition, meal costs, student participation and dietary intakes by comparing these outcomes after implementation of the new standards from SNMCS with these same outcomes measured prior to implementation

based on previous national studies such as the recent SNDA and SLBCS studies. Having pre-post information at the school- and SFA-level on schools' and SFAs' characteristics and key nutritional, cost, and participation outcomes could strengthen the SNMCS study design by permitting direct multivariate analysis overall and for subgroups. For example, these pre-post data might allow the study to better control for important confounding variables (measured variables related to compliance with the new standards and costs or participation outcomes) by directly including them in multivariate statistical analysis of outcomes or allowing direct statistical analysis that controls for regression to the mean. However, it is not feasible to include the collection of pre-HHFKA data on sampled SFAs' and schools' characteristics and outcomes because doing so is substantially beyond the funding resources available for the planned study. Because the study began after the new standards were already being implemented (albeit on a phased schedule), this pre-implementation data on characteristics and costs would need to be collected retrospectively from participating SFAs and schools, essentially doubling the data collection burden on respondents and data collection costs.

FNS is sponsoring at least one longitudinal study that may address commenters' interest in baseline data. The Special Nutrition Program Operations Study (SN-OPS; OMB Control Number 0584-0562, Expiration 4/30/2016) is a longitudinal study providing information about the implementation of new meals requirements and changes in participation

over three years; the final year of data collection is scheduled to begin in spring 2014.

The Academy recommended collecting information from stakeholders such as parent teacher associations and organizations, or school wellness committees, because of their influence on the school food environment, and to specifically examine the impacts of these groups on student dietary intakes and satisfaction with school meals. Although the resources and focus of the study do not support collecting data directly from stakeholders, several survey questions directed to SFA directors and school foodservice managers assess the role of stakeholders in promoting school meals or the types of stakeholders engaged in developing district wellness policies. Other investigators may use data collected from SNMCS to explore the role of stakeholders in greater detail than is addressed in the study's research questions.

Similarly, the Academy recommended consideration of foods available for developmentally disabled students. Among the topics addressed in the FSM Survey (Appendix F2) are general questions about allergies and other special dietary needs, but developmentally disabled students are not a planned subgroup in the study's design and analysis, and questions were not developed to specifically examine this student population. One of the study's key objectives is to assess student characteristics at a national level. Collecting information on student disabilities is highly sensitive and could potentially hinder the contractor's ability to include as representative a

sample of students in the study as possible due to altered recruiting and data collection procedures.

The Academy recommended that outcomes be measured consistently and concisely, particularly for the cost analyses. The proposed study has many features to ensure this recommendation is met. The cost study methodology that will be used for this study is very similar to the methodology used by the National Academy of Sciences (NAS). The NAS cost methodology builds upon the data and methods used in both SNDA-III and SLBCS-II. Members of the contractor’s SNMCS study team conducted both of these studies and the collection of cost data is based on the methods used in those studies. Instruments were designed for this study to collect data in a consistent, streamlined fashion. Instruments were reviewed by outside experts identified below. Many instruments use close-ended questions with standardized response options to maximize consistency across respondents and with prior studies. Respondents will be given clear instructions on completing self-administered instruments. For example, training videos will be included as part of the electronic Menu Surveys (Appendix H) and, if needed, participants may request additional assistance from the contractor. The contractor’s data collection staff will be trained extensively and must be certified before collecting any data.

Meal cost data will be collected from respondents during the same timeframe and will cover similar time periods across SFAs to ensure accuracy of comparison of data. We understand the potential variation in production



costs by month and by time of year and will ensure that revenue and expenditure figures will be captured over the same timeframe across SFAs. Total costs and revenues per meal will be based on annual expenses and revenues for School Year 2014-2015.

The cost analysis takes into account variation in type of meal production, and the study sample is designed to specifically include a variety of production systems, including central kitchens, production kitchens, and schools with onsite preparation kitchens. The collection and analysis of meal cost data is designed to account for these variations in production systems and we have successfully used similar approaches in previous studies of meal cost data. A key innovation of the proposed study is that it will provide estimates of meal costs at the school level, allowing comparisons of meal costs between schools with different characteristics.

Finally, the Academy recommended that the study should reduce potential error from interobserver variability in plate waste observations. The plate waste portion of the study is designed to minimize observer variability and inconsistencies and errors resulting from different observational processes. Plate waste data will be collected in a subsample of the Group 3 schools. The data collection will use procedures, tools, and instruments designed to minimize subjectivity and maximize accuracy. Data collectors that are conducting plate waste observations will receive intensive, specific training on conducting and recording plate waste observations; the number of data collectors that receive this training will be minimal, so that the same

few individuals conduct the observations, therefore minimizing errors due to differences between observers.

Past studies conducted by members of the study team investigated the feasibility of digital photography for measuring plate waste and minimizing observational differences between data collectors. This research concluded that digital photography was not a sufficiently reliable method for plate waste observations due to the limitations of two-dimensional images and lighting<sup>6</sup>

The Council of the Great City Schools urged FNS to use an independent, third party to develop and conduct the study and analyze its data, and to have practitioners, particularly from large SFAs, review the information to be collected. FNS contracted with Mathematica Policy Research and its partners, Abt Associates, Agralytica, and Relyon Media to conduct the study. Mathematica’s team is an independent evaluator and has conducted the SNDA and SLBCS studies preceding the SNMCS. The contractor is working with several former SFA directors to provide input on the study design and data collection instruments, and the School Nutrition Association has offered its support for the study, including participation among its members (Appendix C1). One district member of the Council has participated in some of the instrument pretest activities to ensure that study activities can be accomplished as planned.

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<sup>6</sup> Memorandum from Mathematica Policy Research to Joanne Guthrie, USDA, *Food and Nutrition Service, Photo Plate Waste Pilot--Report on Design Phase*. SMD-020, January 29, 2003.

The Council also expressed concerns about the burden of participation. FNS has made a heavy investment in technology to design the Menu Survey as an electronic instrument rather than hard-copy, as was used in previous SNDA studies. Other instruments are also self-administered on the web, enabling participants to spread out burden over time by completing questions over several sessions, or by sharing burden with other staff members using the same login. Questions were limited to those needed to meet the study research objectives, and to the extent possible, respondents will be able to rely on existing data sources that are not readily available to FNS or the contractor to answer questions.

Finally, the Council recommended not including height and weight measurements in the study. One of the goals of the Healthy, Hunger-Free Kids Act is to reduce childhood obesity, and therefore collecting objective height and weight measures from study participants is essential to examine weight and body mass index outcomes of students who do and do not participate in school meals. Height and weight measures will be collected in a private area to maintain students' privacy and the data will be treated as confidential. Parents and children can choose not to participate in the height and weight measurement. These data were collected using similar protocols for SNDA-III and allowed for rich analysis by the study team as well as other researchers.

The Urban School Food Alliance recommended several topics to be included in the analyses, many of which pertained to cost analyses. All of

these concerns are addressed under study objective 3, which includes an examination of the relationship of meal costs to foodservice characteristics and meal characteristics. The analysis for this objective will explore the relationship of meal costs to a range of choices about foodservice operations by SFAs and schools, and to the resulting meal characteristics.

The SNMCS will use the same methodology as the prior SLBCS studies to measure the full costs of school food service, including food, labor, equipment, facilities, utilities, indirect costs, and support services provided at cost or in-kind by the school district. The national average cost per NSLP lunch and SBP breakfast, and the ratio of revenues to costs, will be compared with the SLBCS-II estimates to establish the overall trend in these costs. The SNMCS will also collect data on SFA directors' experiences with the cost impacts of specific choices in foodservice operations, including use of fresh produce and branded foods. Nutrition promotion costs incurred by SFAs and schools will be separately measured and reported, as well as being included in total costs.

The analysis for the research questions about foodservice and meal characteristics will consist of three stages: (1) exploratory analysis of correlations of cost outcomes to characteristics and differences in outcomes between groups, (2) multivariate analysis of the relationship of a selected subset of characteristics to the cost outcomes, and (3) presentation of tables showing the relationship of costs to the most salient characteristics.

The most important analysis for this objective will examine the relationship of meal costs to compliance with the new meal pattern and nutrient requirements. To the extent that SFAs vary in their compliance (overall and for key requirements), the analysis will use this variation to provide insight into the differences in cost at different levels of compliance.

The exploratory analysis will also consider the relationship of meal costs to the following characteristics of foodservice operations and meals offered by SFAs:

Foodservice characteristics involving branded foods and FSMCs:

- School offering of branded food items
- Whether FSMC managed

Use of fresh produce:

- School offering of fresh produce by salad bars/other formats
- Self-reported impact of selected foodservice practices on purchasing and storage costs

Other foodservice characteristics:

- Meal production system (differences at the SFA level)
- Subgroups based on levels of key nutrients with substantial variation among schools and SFAs
- Subgroups based on levels of types of foods with substantial variation among schools and SFAs
- Subgroups to define based on measures of compliance with nutrition standards developed in analysis for study objective 2 (nutritional quality of meals)

In addition, the Alliance suggested some topics not related to the cost portion of the study. For example, they recommended examining the amount of time students have to eat a meal and, separately, how USDA Foods are

ordered and delivered. The amount of time available to students can be calculated in this study from foodservice managers' reports of the length of meal periods and the amount of time students wait in line. In addition, the Child/Youth Interview (Appendix N3/4) includes several questions about student satisfaction with meal scheduling. For example, questions about reasons students do not participate in breakfast or lunch include "long lines, not enough time" as a response option. Ordering and delivery of USDA Foods is not a topic of this study but was addressed in the third School Food Purchase Study (OMB Control Number 0584-0471, Discontinued 06/30/2012).

The Alliance expressed concerns about the adequacy of the study sample sizes. The final sample sizes are designed to yield estimates at feasible precision levels at the SFA, school, student, parent, and meal levels, given the resources available to the study. For estimated percentages, the sample sizes are designed to produce a 95 percent confidence interval no greater than plus or minus 5 percentage points for the sample as a whole and no greater than plus or minus 10 percentage points for subgroups representing 25 percent or more of the population of SFAs, schools, or students. For continuous variables, the sample is designed to produce confidence intervals no greater than plus or minus 5 (whole sample) or 10 percent (subgroups) of the mean. Key subgroups include SFA and school size (enrollment), poverty level, urbanicity, FNS region, school type (elementary, middle, high), and school meal participants/nonparticipants.

Finally, the Alliance expressed concerns about the study burden and cited SN-OPS as particularly burdensome on the largest SFA in the nation. As noted previously, the contractor has taken several steps to minimize burden on study participants including the development of the electronic Menu Survey and efforts to reduce redundancies across data collection instruments. Burden estimates represent averages for respondents and individual respondents may have different experiences based on, for example, variation in SFA size or recordkeeping.

The National Dairy Council requested an examination of outcomes relative to innovative SBP serving approaches such as breakfast in the classroom (BIC) and grab-and-go service options. The study will assess the prevalence of these options at the school level and findings can be compared to SNDA-IV. The contractor will use multivariate regression to compare selected dietary intake measures between students in schools that offer BIC and those that do not. The study does not have research questions looking specifically at changes or differences in participation, meal costs, and reimbursements among schools using BIC or grab-and-go, although the data will be available for others to do so.

The Council recommended that milk waste be a component of the plate waste study. The mean amounts and percentages of milk wasted (relative to mean amounts served) at the tray level is part of the study plan. The analysis will be performed separately for breakfasts, lunches, school type, gender, timing of lunch period, and additional subgroups defined by school

foodservice and environment characteristics, 6-cents certification status, meal costs, and demographic characteristics.

Fluid milk utilization in the NSLP and SBP, including changes from prior years, a comparison of milk sales to determine when students take milk as part of a reimbursable meal, and data on changes in flavored milk use was also of interest to the Council. The SNMCS will assess (1) the percentage of school meals that *offer* milk (by type), (2) the percentage of schools that sell milk a la carte or in other competitive venues (by type), and (3) the percentage of students that consumed milk at breakfast and at lunch and the source of the milk. These data can all be compared with SNDA-IV and/or III. Data on milk sales are not being collected as part of the study and therefore there are no plans to compare sales to student participation rates.

Finally, the Council requested that changes in schools' use of other dairy products be assessed. SNMCS will assess the percentage of school meals that *offer* cheese and yogurt (as meat alternates) as well as dairy-based desserts, the percentage of schools that sell these items as competitive foods, and the percentage of students that consume these foods. (Data will be presented separately for reduced-fat or lower-fat cheese only if offered in at least 5 percent of daily menus for one or more school types.) The study will also assess the average cups of dairy foods offered and served in school meals relative to USDA Food Pattern recommendations. These data can all be compared with SNDA-IV and/or III.

**b. Consultations Outside of the Agency**



Consultations about the research design, sample design, data sources, and study reports occurred during the study’s design phase and will continue to take place throughout the study. Individuals outside the agency who have reviewed and commented upon key documents produced by the study are:

<b>Name</b>	<b>Degree</b>	<b>Title</b>	<b>Organization</b>	<b>Phone Number</b>
Joanne Guthrie	M.P.H.	Assistant Deputy Director for Nutrition in the Food Assistance and Nutrition Research Program (FANRP)	USDA Economic Research Service (ERS)	202-694-5373
Helen Jensen	Ph.D.	Professor of Economics	Iowa State University	515-294-6253
Suzanne Murphy	Ph.D., R.D.	Researcher (Professor) Emeritus	Cancer Research Center of Hawaii	(808) 564-5861
Mary Jo Tuckwell	M.P.H., R.D.	Nutrition Program Management Consultant	Midwest Nutrition Systems	(715) 559-8466

Brian Richards<sup>7</sup> from the National Agricultural Statistics Service (NASS) provided expert consultation about the availability of data, the design, level of burden, and clarity of instructions for this information collection. Comments from NASS are in Appendix S. The comments informed the overall approach to the information collection and are incorporated appropriately throughout the OMB supporting statement.

**A.9. Explain any decision to provide any payment or gift to respondents, other than reenumeration of contractors or grantees.**

Incentive gifts will vary by respondent and by school characteristics. Menu survey respondents and school liaisons will receive incentive gifts consistent with comparable data collection efforts on SNDA-III, SNDA-IV, and SLBCS-II. This approach has yielded high response rates and high quality data on those studies. The efforts of these respondents require significant

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<sup>7</sup> Brian Richards can be reached by telephone at (202) 720-2518.

time and flexibility beyond their normal job responsibilities, and their responses and assistance are critical to the quality of data collected for the SNMCS. Because the specific effort required varies based on a school's sample group and the quantity of competitive foods to be reported, payment amounts are tailored to reflect these differences. Respondents can donate this gift to the school if required by school policy.

Gifts to parents and students also reflect the experience of comparable data collection on SNDA-III. The gifts demonstrate appreciation and promote cooperation and full participation for parents and students. Research summarized by Singer and Kulka (2000) indicates that financial incentives can be effective. These researchers conclude that financial incentives significantly reduce survey nonresponse and are cost-effective, lowering the overall cost and burden for most surveys. Prior experience with this population and these instruments and data collection procedures suggest success with this approach.

*School Nutrition and Meal Cost Study – OMB Supporting Statement, Part A*

**Table A.1. Incentives for School Staff**

Respondent Group	Check Amount
FSMs, Group 2	\$50 (following completion of the Basic Menu Survey)
Group 2 school liaisons	\$75 (\$40 post consent + \$35 post data collection)
FSMs, Group 3	\$100 (\$50 following completion of Menu Survey and \$50 following on-site data collection) <sup>a</sup>
Group 3 school liaisons	
Elementary schools	n.a.
Middle, ≤10 vending machines (no more than 5 beverage or 5 snack machines)	\$15
High schools, ≤10 vending machines (no more than 5 beverage or 5 snack machines)	\$30
Middle/high schools, ≥6 vending machines (at least 6 beverage or snack machines)	\$35

<sup>a</sup> No additional incentives are being planned for schools with the plate waste option.

n.a. = not applicable.

**Table A.2. Incentives for Students and Parents**

Respondent Group	Gift Card or Check Amount
Elementary students	\$5
Elementary parents	\$30
Middle/high students	\$15 (or \$20 if interviewed on Saturdays) <sup>a</sup>
Middle/high parents	\$15 (by mailed check)
Second dietary recalls for child/parent grouping	\$25 + measuring cups/spoons
Second dietary recalls for middle/high students	\$15 + measuring cups/spoons

<sup>a</sup> We estimate that 12 percent of middle and high school students will be interviewed on Saturdays in order to include Friday dietary intakes.

**A.10. Describe any assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation, or agency policy.**

All respondents' information will be kept private and not disclosed to anyone but the analysts conducting this research, except as otherwise required by law. Section 9(b) of the National School Lunch Act (Public Law 103-448) restricts the use or disclosure of any eligibility information to persons directly connected with the administration or enforcement of the program. The HHFKA does not change any of the privacy requirements of NSLA regarding the use and disclosure of information obtained from an application for free and reduced-price meal. The HHKFA did make one significant change to information provided by school meal program participants, removing the requirement that applications for free or reduced-price lunches include all nine digits of the Social Security number of the adult household member who completes and signs the application.

FNS published a system of record notice (SORN) titled FNS-8 USDA/FNS Studies and Reports in the Federal Register on April 25, 1991, Volume 56, Pages 19078-19080. It discusses the terms of protections that will be provided to respondents.

The individuals at the SFA or school district level participating in this study will be assured that the information they provide will not be released in a form that identifies them. No identifying information will be attached to any reports or data supplied to USDA or any other researchers. For data collected through the State-level surveys, the State educational agency

finance officers are publicly known, but individual respondents will not be identified by name.

During the life of the project, hard-copy documents will be stored in secured file cabinets and rooms, and electronic data will be maintained on secured, password-protected computer servers. Both sources of data will be accessible only by approved contractor staff. At the close of the study, all hard-copy documents will be shredded.

All contractor staff are required to sign a confidentiality agreement (Appendix T). In this agreement, staff pledge to maintain the privacy of all information collected from the respondents and not to disclose it to anyone other than authorized representatives of the study. Issues of privacy will be discussed during training sessions to staff working on the project.

To enable other researchers to replicate SNMCS analyses or to address other research questions, a public-use database will be created. The database will include all of the variables that were collected or computed during analyses carried out to address the study's research questions. To maintain privacy, all individual identifiers will be stripped from this file.

**A.11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior or attitudes, religious beliefs, and other matters that are commonly considered private. This justification should include the reasons why the agency considers the questions necessary, the specific uses to be made of the information, the explanation to be given to persons from whom the information is requested, and any steps to be taken to obtain their consent.**

With the exception of questions in the Parent Interview, the Child/Youth Interview, and the Height and Weight Measurement Form, the surveys and

interviews with SFAs, FMS, and principals do not involve questions of a sensitive nature. All respondents will be informed that they can decline to answer any question they do not wish to answer and that there are no negative consequences for not participating. Respondents will also be assured of privacy at the outset of the interview, and, if required by the district, receive a copy of their parental consent form which addresses the issue. All survey responses will be held in secured manner; respondents' answers will not be reported to school officials or any other program or agency, but will be combined with the responses of others so that individuals cannot be identified. FNS and the contractor will comply with the requirements of the Privacy Act. All the questions have been used extensively in previous surveys with no evidence of harm.

Survey questions in the Parent Interview on the following topics may be considered sensitive items: eligibility for free or reduced-price meals; race and cultural origin and primary language used; household composition; parent/guardian educational history, and employment status; total household income; receipt of public assistance; family food security; and housing status. Three questions in the Child/Youth Interview may also be considered sensitive: one about losing weight or avoiding weight gain; another about cigarette smoking; and a third asking for parent contact information and cell phone numbers. The Height and Weight Measurement Form provides measurements on individual children; though unique identifiers are attached to each form, the child's name is not included on it. These measurements

will allow us to compare height and weight of the current sample against measurements taken in SNDA-III. We will look at aggregate height and weight and not compare individual height and weight measurements between the SNDA-III group and SNMCS.

The questions identified above from the Child/Youth interview were also used in the SNDA-III study. These questions address research questions about health and wellness and allow us to compare change among the sample over time. Questions similar to those concerning the household's income and public assistance receipt by the household have been used successfully in the SNDA studies and the Access, Participation, Eligibility, and Certification (APEC) studies.

**A.12. Provide estimates of the hour burden of the collection of information. The statement should:**

- **Indicate the number of respondents, frequency of response, annual hour burden, and an explanation of how the burden was estimated. If this request for approval covers more than one form, provide separate hour burden estimates for each form and aggregate the hour burdens in Item 13 of OMB Form 83-I.**
- **Provide estimates of annualized cost to respondents for the hour burdens for collections of information, identifying and using appropriate wage rate categories.**

The public affected by this study are state, local and tribal governments, including state agencies and local education agencies; private sector for-profit businesses, including foodservice management companies; and individuals, including elementary and secondary students and parents. The table included as Appendix B shows sample sizes, estimated burden, and estimated annualized cost of respondent burden for each part of the data collection and for all data collection. Estimated response times are based on

response times for similar instruments completed by the same types of respondents in the SNDA-III, SNDA-IV, and SLBCS-II studies, and informed by pretesting of select SNMCS instruments and protocols. Annualized cost of respondent burden is the product of each type of respondent's annual burden and average hourly wage rate. As shown in the table, the total estimated burden across all data collection components is 24,662.5 hours. The total cost of respondent burden is \$583,659.

**A.13. Provide estimates of the total annual cost burden to respondents or record keepers resulting from the collection of information, (do not include the cost of any hour burden shown in items 12 and 14). The cost estimates should be split into two components: (a) a total capital and start-up cost component annualized over its expected useful life; and (b) a total operation and maintenance and purchase of services component.**

There are no capital and start-up or ongoing operation and maintenance costs associated with this information collection.

**A.14. Provide estimates of annualized cost to the Federal government. Also, provide a description of the method used to estimate cost and any other expense that would not have been incurred without this collection of information.**

The annualized government costs include the costs associated with the contractor conducting the project and the salary of the assigned FNS project officer. The total cost to the Federal government for all tasks is \$18,082,112, or \$6,027,371 on annualized basis for 3 years. This information collection assumes a total of 2080 hours of Federal employee time for a GS-10, step 10 senior program analyst serving as the FNS project officer at \$66.14 per hour, for a total of \$137,571. Federal employee pay rates are based on the General Schedule of the Office of Personnel Management (OPM) for 2014.



**A.15. Explain the reasons for any program changes or adjustments reported in Items 13 or 14 of the OMB Form 83-1.**

This is a new information collection that will add 24,662.5 burden hours to the OMB inventory as a result of program changes.

**A.16. For collections of information whose results are planned to be published, outline plans for tabulation and publication.**

The contractor will analyze the information collected using descriptive tabular, cross-tabular and multivariate modeling and analysis. The study will release and prepare five detailed reports as well as a summary report oriented toward lay audiences. The reports will address the various major areas of interest encompassed in the study's objectives. All reports will be posted on FNS's website. Many of the tabulations will mirror those completed for previous national FNS school meal program studies to provide the most reliable findings possible of how national policy changes have affected school meal operations and outcomes, such as nutrition quality of meals and meal costs. The key domains are (1) SFA and school characteristics and environments and school foodservice operations; (2) nutritional quality of meals offered and served; (3) meal costs and revenues; (4) student participation in school meal programs, satisfaction with meals (including plate waste), and dietary outcomes. The study's integrative structure will support use of descriptive cross-tabular and multivariate methods to explore relationships among these key domains, with particular focus on the relationships among healthy meals, costs, and student participation. The

analyses of each domain will be conducted individually prior to the integrative analyses.

For each of the substantive domains, the analysis will follow these key steps:

**Prepare analytic files.** Each data file will be checked for missing or inconsistent data and for outliers, cleaned, and recoded as needed for statistical analysis. This is straightforward for interview data, especially the web-based surveys, but cost and Menu Survey data will need considerable manipulation and detailed data checking in preparation for analysis. Data from the Menu Survey, the plate waste observations, and the dietary intake interviews will need to be coded to reflect the foods identified and the nutrients they contain, which involves use of highly technical software, specialized databases, and skilled coders.

**Prepare sampling weights.** The data will be weighted to produce nationally representative tabulations at each appropriate level of analysis (SFA, school, student and parent, and meals). Raw sampling weights will be the inverse of the probability of selection for each observation. Weights will be adjusted for survey nonresponse and may be poststratified to match key benchmarks.

**Specify tabulations.** For each study domain, researchers will specify tabulations of the data for SFAs, schools, students and their parents, or meals nationally and for subgroups of policy or nutritional interest. Key subgroups include SFA and school size (enrollment), poverty level,

urbanicity, FNS region, school type (elementary, middle, high), and school meal participants/nonparticipants. As appropriate, analyses will be compared to results from past studies, taking into account any methodological limitations to such comparisons. In addition, analyses of the food and nutrient content of school meals and of student's diets will be compared to the new nutrition and meal pattern requirements and other appropriate standards for healthy diets.

**Estimate descriptive statistics, including cross-tabulations, using appropriate statistical methods.** As in the SNDA and SLBC studies, most of the SNMCS analysis will be straightforward descriptive tabulations (producing estimates of means, proportions, and distributions) and bivariate (cross-tabular) analysis of surveys and observations. Analyses will be conducted using statistical software such as SUDAAN or STATA to compute standard errors that adjust for the complex sample design. In addition, nutrient data will be analyzed using special statistical methods to estimate the distributions of usual nutrient intakes, using two days of dietary intake data for a subsample of students. Statistical tests for differences between key subgroups will also be conducted. Differences in mean outcomes of interest between pairs of groups will be tested using t-tests for means. For tests of association between a mean and a grouping variable with three or more categories (for example, the association between reported cost per lunch and region) we will use f-tests. Although the principal measures of

interest will be means, we will use chi-square tests for frequency measures when applicable.

**Estimate multivariate regression models.** The study will examine meal costs and other outcomes as a function of student, school, and school foodservice characteristics using single-equation multivariate models. These will be estimated as reduced-form models, in that the variables that mediate the outcomes—such as the characteristics of meals offered when analyzing participation or student dietary intakes—are omitted from the model to determine the associations of the broader policy variables, while controlling for other exogenous factors. Recursive models will be used to examine the relationships among the school meal program costs and outcomes.

### **Project Time Schedule**

This schedule assumes OMB clearance will be received no later than July 15, 2014. The planned schedule for SNMCS is as follows:

<b>Activity</b>	<b>Schedule</b>
Recruit SFAs	8/1/14–1/30/15
Conduct Data Collection	1/1/15–1/31/16
Analyze Data and Prepare Reports	4/1/15–2/10/17
Prepare Data Files and Documentation	1/1/16–2/3/17

**A.17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons that display would be inappropriate.**

The agency plans to display the expiration date for OMB approval of the information collection on all instruments.

**A.18. Exceptions to Certification for Paperwork Reduction Act Submissions**

There are no exceptions to the certification statement.