## SECTION B

# School Nutrition Dietary <br> Assessment Study IV 

(OMB No.: 0584-0527)

## Project Officer: Fred S. Lesnett

Office: Office of Research and Analysis
Food and Nutrition Service
Room 1014
3101 Park Center Drive Alexandria, VA 22302

Telephone: 703-605-0811
FAX: 703-305-2576

Email: Fred.Lesnett@FNS.USDA.GOV

## CONTENTS

Page
B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS B-1

1. Respondent Universe and Sampling Methods

B-1
2. Procedures for the Collection of Information B-2
3. Methods to Maximize Response Rates and to Deal with Non-Response B-12
4. Test of Procedures or Methods to be Undertaken B-14
5. Individuals Consulted on Statistical Aspects and Individuals Collecting and/or Analyzing Data

B-15

| APPENDIX A | RECRUITMENT MATERIALS |
| :--- | :--- |
| APPENDIX B | SFA RECRUITMENT INTERVIEW |
| APPENDIX C | MENU SURVEY FORMS |
| APPENDIX D | INSTRUCTIONS FOR MENU SURVEY |
| APPENDIX E | PROCEDURES FOR MENU SURVEY TRAINING |
| APPENDIX F | SAMPLE SCRIPTS FOR MENU SURVEY TECHNICAL ASSISTANCE |
| APPENDIX G | SCHOOL FOOD SERVICE MANAGER SURVEY |
| APPENDIX H | PRINCIPAL SURVEY COMMUNICATIONS AND INSTRUMENT |
| APPENDIX I | COMPETITIVE FOODS CHECKLIST |
| APPENDIX J | SFA DIRECTOR COMMUNICATIONS AND SURVEY |
| APPENDIX K | TRAINING MODULE FOR SCHOOL LIAISON WHO WILL COMPLETE <br> COMPETETIVE FOODS CHECKLIST |
| APPENDIX L | FREQUENTY-ASKED QUESTIONS FOR COMPETITIVE FOODS <br> CHECKLIST |
| APPENDIX M | COMMENTS RECEIVED DURING 60-DAY NOTICE PERIOD AND FNS |
| APPSPONSES |  |
| APPENDIX O | SAMPLE TABLE SHELLS |
| CONFIDENTIALITY AGREEMENT SIGNED BY ALL EMPLOYEES OF |  |

## B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

## 1. Respondent Universe and Sampling Methods

The SNDA-IV study involves a multistage sample design, which begins by sampling SFAs, then samples schools served by those SFAs. Substantive data for the study will be obtained from the entities at both of these levels of sampling. The respondent universe includes all public SFAs and schools participating in the NSLP that are located in the contiguous 48 states and the District of Columbia.

In addition to the purposeful sample of 30 HUSSC schools and their SFAs, the core probability sample for SNDA-IV has two overall components. The first component, designated the SFA-only sample, will include a final sample of 300 SFAs. The second component, referred to as the school sample, will include both SFA- and school-level sampling and data collection. The school sample will include a final sample of 900 schools, approximately three in each of 300 SFAs. When the school and SFA-only samples are combined, the final sample will include 600 SFAs, providing an adequate sample size for analyses of SFA-level data. When possible, the three schools selected from each SFA will be stratified to include one elementary school, one middle school, and one high school. The school sample is specifically designed to avoid incurring the additional costs that would be associated with collecting school-level data in the full sample of SFAs.

Table B. 1 shows the respondent universe, the initial sample sizes to be released for contact (includes combined counts for both the probability sample and the purposeful sample
of 30 HUSSC schools and their SFAs), expected response rates, and expected final samples for each level of data collection. Anticipated response rates are based on response rates achieved in the SNDA-III study-79-83\% for SFA-level data collection and 93-95\% for school-level data collection.

Table B.1—Respondent Universe, Samples, and Expected Response Rate (including the purposeful sample of $\mathbf{3 0}$ HUSSC schools and their SFAs)

| Respondent | Universe | Initial Sample | Expected <br> Response Rate | Final Sample |
| :--- | :---: | :---: | :---: | :---: |
| SFAs | 14,500 | 788 | $80 \%$ | 630 |
| Schools |  |  |  |  |
| Menu Survey | 102,000 | 979 | $95 \%$ | 930 |
| Food Service Manager <br> Survey | 102,000 | 979 | $95 \%$ | 930 |
| Principal Survey | 102,000 | 979 | $90 \%^{\mathrm{a}}$ | 884 |
| Competitive Foods <br> Checklist | 102,000 | 979 | $90 \%^{\mathrm{a}}$ | 844 |

${ }^{\text {a }} 95$ percent of respondents in schools that complete a menu survey.

## 2. Procedures for the Collection of Information

## a. Sample Selection, Estimation, and Precision

Sampling frames will be required to select both SFAs and schools. Because no complete sample frame of SFAs is available, we will rely primarily on the National Center for Education Statistics (NCES) 2006-07 Common Core of Data (CCD) Local Education Agency (School District) Universe Survey Data (http://nces.ed.gov/ccd/pubagency.asp). Because not all school districts are SFAs, we will also use a file provided by FNS that includes data from the School Food Authority Verification Summary Report (FNS-742) (Appendix P; OMB No.: 0584-0026; Expiration Date: 01/31/2010). Because the FNS-742 file contains records of SFAs, merging it to the CCD will help us determine, in many cases,
which districts on the CCD are SFAs. Districts not identified as SFAs by matching with FNS742 will be screened for SFA status by more careful examination of data on the CCD file as well as manual review of State and district websites. In addition, we will use the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE) to obtain poverty estimates for most, but not all districts. ${ }^{1}$

The frame for selecting the core probability SFA samples will be a list of Primary Sampling Units (PSUs). Before forming PSUs, districts on the CCD that are clearly ineligible will be removed. This will include districts that report no schools or students and cannot be connected to any other eligible district, to an operating school, or to students on the schoollevel CCD file. ${ }^{2}$ Other districts that are ineligible are those:

- Found only on the Census (SAIPE) file and not on the CCD
- Located outside the contiguous (48) United States plus the District of Columbia
- Operated by state or federal agencies
- No longer operating.

A PSU on the frame may be a single SFA (appears on FNS-742), a single district for which SFA status has not been determined (on CCD but either not on or cannot be linked to FNS-742), or a group of districts or SFAs (those that are part of the same supervisory union).

[^0]Groups of districts or SFAs in a common supervisory union will be kept together at this point in the sampling process because all districts in a supervisory union may be served by a single SFA. If we later learn that there are multiple SFAs in any PSU, we will sample a single SFA for data collection. Similarly if an SFA serves multiple districts, we will collect school-level data only in one randomly selected district. Separate sampling frames of (schools) will provide Secondary Sampling Units (SSUs) for the core probability sample. SSU frames will be constructed for each of the 300 SFAs selected for the school sample. The school-level frames for most SFAs will employ the CCD 2006-2007 Public Elementary/ Secondary School Universe Survey (http://nces.ed.gov/ccd/pubschuniv.asp) as the main source of information. For some SFAs, the CCD may not be current or may not have adequate information for constructing the sampling frame. In such instances, we will create frames from lists of schools found on district websites or lists provided by the SFAs—in hard copy or electronic format. In cases where the CCD serves as the primary source of the SSU frame, there may have been school closures, mergers, or additions since the CCD data were collected. When these SFAs are contacted about the study, we will determine if any sampled schools have closed or if there are schools that might be eligible for the study that did not exist in 2006-2007. As described below, any schools identified in this manner will be given a chance of selection into the sample.

The PSU sampling frame will be stratified by enrollment, poverty level, region, and urbanicity. Stratification is somewhat complicated by the fact that there will be two samples of PSUs: (1) the SFA-only sample will be large enough to yield a final sample of 300 SFAs and (2) the school sample will be large enough to yield final samples of 900 schools and 300

SFAs. The two PSU samples will be selected using Probability Proportional to Size (PPS) methods but with different measures of size. The first step will be to define certainty selections (PSUs so large that their probability of selection in a PPS sample would be 1.0) for the final sample of 300 SFAs in the school sample. We refer to these PSUs as "final certainty" PSUs. There will also be other levels of certainty selection. Some PSUs not included in the "final certainty" group will be large enough to be selected with certainty for one of the initial samples of SFAs, but not large enough to be selected with certainty for the final school sample. We refer to these PSUs as "initial certainty" PSUs.

Stratifying variables for selecting all but the final certainty PSUs will include FNS region (of which there are seven), poverty level, enrollment, and degree of urbanicity. In addition, we will stratify on number of schools. We plan to construct and define the stratifying variables other than FNS region as follows:

- Degree of Urbanicity. The CCD for 2006-2007 defines 12 levels of urbanicity. We will define three levels: cities, suburbs and towns, and rural areas.
- Poverty. We will define two levels of poverty: high poverty, which will include PSUs where the poverty level (number of school-age children in families living in poverty) is estimated to be 30 percent or more, and the remainder (not high poverty), which will include PSUs where the poverty level is estimated to be less than 30 percent. We will derive poverty level from U.S. Census SAIPE files. In cases where there is no SAIPE data, we will impute poverty level using data on the CCD, such as district type, number of students certified for free meals, and degree of urbanicity.
- Enrollment. Since we are sampling with PPS and will have certainty strata, the value of stratifying the non-certainty PSUs by size is diminished. However, we will form two size categories based on the median enrollment among non-certainty PSUs in each FNS region to assure that SFAs with smaller enrollments are represented.
- Number of Schools. We will form four levels based on the number of schools: one or two schools, three to five schools, six or seven schools, and more than seven schools.

The extent of stratification for the initial certainty selections will depend on the number and diversity of PSUs in this category; PSUs not large enough to be designated as certainty selections will be assigned to the noncertainty strata before selection of the SFA sample. For example, if all of these PSUs are in the same FNS region, we would not stratify by region.

We will select the samples of PSUs in four steps:

1. Identify the final certainty PSUs (large enough to be selected with certainty for the final sample of 300 PSUs to be included in the school sample).
2. Select a sample of half of the PSUs not in the final certainty group.
3. Select a sample of PSUs for the school sample from this half sample.
4. Select a sample of PSUs for the SFA-only sample from the half of the frame not selected for the school sample.

We will select the school and SFA-only samples separately. The initial samples for each will be large enough to yield a final sample of 300 SFAs or SFA equivalents. Within SFAs selected for the school sample, we will select samples of schools large enough to yield a final sample of 855 to 900 schools (as shown in Table B.1, assumptions about response rates for school-level data collection vary slightly for different instruments). Determining the sample sizes for SFAs and schools cannot be separated from the choice of sampling method. Based on analysis of potential design effects and the distribution of SFAs by size (number of schools), FNS has determined that the best approach for SNDA-IV is to select PSUs for the school sample with probability proportional to the numbers of schools and to select PSUs for the SFA-only sample with probability proportional to the square root of the number of
schools. Selecting PSUs for the school sample with probability proportional to the number of schools will reduce the number of SFAs in the sample that have three or fewer schools.

The initial samples of PSUs will allow for ineligibility (not all PSUs will contain a studyeligible SFA) and for nonresponse. We will select two initial samples of approximately 641 PSUs each. ${ }^{3}$ The final certainty selections will be made first. Then, for each of the two PSU samples, we will determine if any initial certainty selections will be made. Subsequently, samples of pairs of noncertainty PSUs will be selected. (The number of noncertainty selections will be a multiple of two, since we will group the selected PSUs into pairs.) Selection will be made so that the PSUs in a pair are similar with respect to the characteristics used for stratification. Within each pair, one PSU will be randomly designated as the main selection and the other as reserve. A reserve PSU will be used only if the main selection in its pair is ineligible or declines to participate in the study. This method helps assure that the final sample will resemble the initial sample on characteristics used for stratification. Because there will be instances where both members of a pair do not participate, the initial sample will include extra (back-up) pairs within each stratum, defined by region and degree of urbanicity. These extra pairs will be used only in cases where complete pairs do not participate (due to ineligibility or non-cooperation). We expect to select 20-22 such pairs between the two samples.

The final certainty PSUs will form the first part of the school sample. Some of these PSUs will be large enough to receive a double allocation of schools (that is, they are large enough to represent two SFAs). If there are any PSUs that meet this criterion (we expect that
${ }^{3}$ The school sample will contain the final certainty PSUs, some of which will be large enough to count as two PSUs.

New York City and Los Angeles will each receive a double allocation), the number of unique SFAs in the school sample will be reduced. For example, if there are two PSUs with a double allocation there would be 298 unique SFAs but 300 SFA equivalents in the school sample. However, none of the initial certainty PSUs will count as more than one PSU-equivalent.

The number of schools to be selected within an SFA will depend on the numbers of schools in each stratum and whether there is an expanded allocation to compensate for some SFAs having fewer than three schools. To determine the number of SFAs to be allocated an additional school, we will first estimate the number of SFAs expected to yield fewer than three schools and the expected shortfall in the number of schools from these SFAs. To compensate for the shortfall, we will randomly select other SFAs to be allocated an additional school (as discussed below, only larger SFAs will be included in this selection). Thus, while data will be collected from three schools in most of the SFAs selected for the school sample, four schools will be targeted in some SFAs. In SFAs assigned a double allocation, we will collect data from six or eight schools. Where possible, we will select more than the target number of schools to allow for nonresponse. ${ }^{4}$ For PSUs where the target is three schools, and each stratum contains at least two schools, two schools will be sampled from each stratum, for a total of six schools. In other cases where the target is three schools:

- If the PSU contains at least six schools but one stratum contains no schools, then three will be selected from each of the other two strata, for a total of six.
- If the PSU contains at least six schools, all in one stratum, then six will be selected from that stratum

[^1]- If the PSU contains at least six schools, but one stratum contains only one school, then the only school in that stratum will be selected and the other school that would have been allocated to that stratum will be assigned to another stratum ${ }^{5}$
- If the PSU includes at least six schools, but two of the strata have only one school, then four schools will be selected from the other stratum.

If the PSU contains fewer than six schools, all will be selected. In cases where PSUs receive an allocation of four schools, eight schools will be selected. The distribution of the schools will depend on the distribution of the expected shortfall among small PSUs (for example, if the smaller PSUs are expected to yield proportionately fewer middle schools, more of the additional sample in larger PSUs will be allocated to middle schools).

For SFAs in which four, five, or six schools are sampled, three schools will be randomly selected as the main sample, and the others will be designated as reserves to be used in case of ineligibility or nonresponse. Similarly, in SFAs where eight or more schools are sampled, half will be randomly selected as the main sample. To the extent possible, a nonparticipating or ineligible school in the main sample will be replaced by a reserve from the same stratum.

In addition to nonresponse and ineligibility, the sampling plan accounts for the presence of schools that did not appear on the frame. Schools identified by SFAs as opening after the creation of the CCD data file used for sampling will be given a random chance of selection. If selected, they will not be added to the sample, but will replace one of the already sampled schools.

[^2]For population-based estimates, each responding SFA and school will be assigned a sampling weight. First, a base weight at each level will be determined. This is the inverse of the probability of selection. The final weight will be determined by adjusting the base weight for nonresponse and by post-stratifying to match population totals (as appropriate). All population totals, means, ratios and proportions will be estimated using these final sampling weights.

The analytical objectives of the study are largely descriptive in nature, for example, the study will describe the food and nutrient content of meals offered and served in the NSLP and SBP. In light of this, our precision analysis focuses on the width of confidence intervals around key estimates. FNS has determined its planned sample sizes by examining the relationships between statistical precision, sample sizes, and study costs.

Table B. 2 provides key information about these tradeoffs by showing confidence interval widths in the analysis of SFA and school-level variables. Based on a 95 percent confidence level and two-tailed tests, we have computed confidence intervals for a $(1,0)$ binary variable, such as whether a school's lunches are, on average, consistent with program standards for saturated fat. In order to be conservative, we have assumed that the true value of the variable is in the range of 50 percent, since this has the highest associated variance. (Details of the calculations are contained in the notes to the table.)

Table B.2—Estimated Statistical Precision Levels for Proposed Probability Samples (excluding purposeful HUSSC sample)

Width of 95 Percent Confidence Interval
Overall Sample Size (Percentage Points)
Analysis based on full sample

| 600SFAs | $\pm 5.3$ |
| :--- | :---: |
| 900 Schools | $\pm 3.7$ |
| Analysis based on one-third of full sample |  |
| 200 SFAs | $\pm 9.3$ |
| 300 Schools | $\pm 6.5$ |

Note: Confidence intervals are computed as $+/-1.96 *[\operatorname{sqrt}\{(p)(1-p)\} /\{N /$ deff $\}]$, where $p$ is the proportion being estimated, $N$ is the sample size, and deff is the statistical design effect due to clustering and stratification in the sample design. Deff was estimated to be approximately 1.5 for schools and 1.4 for SFAs based on tabulations of similar data from a SNDA-III.

Two sets of confidence intervals are displayed, one for analysis based on the full sample and one for a hypothetical subgroup analysis based on one-third of the sample, such as elementary schools. On the basis of an examination of this and similar tables, FNS has determined that samples of approximately 600 SFAs and 900 schools for SNDA-IV's core probability sample represent a reasonable compromise between the agency's information needs and cost considerations. For the full sample, this sample size yields levels of precision, with confidence intervals in the range of plus-or-minus 5.3 percentage points for SFAs and 3.7 percentage points for schools. Confidence interval widths are, of course, lower for the subgroup analysis, but still respectable at plus-or-minus 9.3 percentage points for SFAs and 6.5 percentage points for schools.

The SFA sample is not clustered at all, so the design effect of clustering is 1.0. However, unequal weights will result in a design effect of approximately 1.4. The school sample will be clustered. Based on work with similar data from the SNDA-III study, we anticipate having a design effect at the school level of about 1.5.

Upon completion of drawing SNDA-IV’s core probability sample of SFAs and schools described in the preceding paragraphs, a purposeful sample of 30 HUSSC schools and their

SFAs will be drawn. The purposeful sample of HUSSC schools will be drawn so as to be reflective of all HUSSC schools and their SFAs on key variables, such as geographic location, school size (number of students), rural/urban location, and grade distribution. The sampled 30 HUSSC schools will be in addition to HUSSC schools drawn in the core SNDA-IV probability sample. Response rates are expected to be comparable to those for the core SNDA sample. The relatively low incidence of HUSSC schools (358 HUSSC schools nationwide) necessitates their purposeful sampling in order to have sufficient numbers for analysis.

## b. Data Collection Methods

SFA Directors will complete a web-based survey (See Appendix J for a hard copy of the survey instrument and the electronic mailings that will be used to communicate with SFA directors.) with the option for completion via telephone interview, if preferred. SFA Directors who agree to participate in school-level data collection will also complete a brief telephone interview (Appendix B) to provide key information about the SFA and about the schools sampled for data collection. School foodservice managers in sampled schools will complete a five-day menu survey (Appendices C and D), with substantial telephone-based technical assistance (Appendices E and F), following practices and procedures that have been used successfully in the last two SNDA studies (SNDA-II (OMB No: 0584-0481, Expiration Date: 5/31/2000) and SNDA-III). Foodservice managers will also complete a separate brief, selfadministered survey (Appendix G). Principals in sampled schools will complete a web-based survey, with the option for telephone completion (Screen shots of the web-based surveys are being prepared by the contractor and will be made available. See Appendix H for a hard copy
of the survey instrument and the electronic mailings that will be used to communicate with principals.). Finally, school liaisons (appointed by principals) will complete an observation checklist (Appendix I) to document availability of competitive foods in vending machines, fundraisers, and venues outside the cafeteria, such as school stores and snack bars. Liaisons will be contacted by e-mail after being designated/assigned by the principal and will be provided with a link to a website that will include a training manual and customized data collection forms (incorporating a unique school identification number) (Appendix K).

## 3. Methods to Maximize Response Rates and to Deal with Nonresponse

Anticipated response rates are shown in Table B. 1 (Section B.1). Response rates are based on those achieved in the SNDA-III study-79-83\% for SFA-level data collection and 93-95\% for school-level data collection. Response rates for the purposeful sample of HUSSC schools and their SFAs is anticipated to be comparable to schools and SFAs in SNDA-IV's core probability sample.

To achieve response rates similar to SNDA-III, we will use comparable methods to maximize response. Introductory materials (Appendix A) will be attractively designed, easily understood, and informative. In addition, recruitment packets sent to sampled SFAs will include a cover letter signed by a USDA official. This cover letter will establish the legitimacy of the study and underscore the value and importance of participation. In addition, a wide range of methods will be used to maximize participation and reduce nonresponse in all aspects of the data collection:

- SFAs will be recruited by trained, permanent, professional, senior and mid-level members of the contractor's staff. All staff will have experience recruiting for studies of school meal programs and/or other school-based studies.
- A memo, prepared by FNS (See Appendix A) will be provided to the State CN Director to send to SFA directors to inform them of their selection into the study and encourage their participation. Subsequently, senior members of the contractor's staff will be assigned to the largest SFAs and to any SFAs that are expected to present challenges, based on input from State Child Nutrition directors. SFA directors will be called by the contractor to ascertain whether they have or have not agreed to participate.
- Reluctant SFAs will be referred to the project director or survey director for followup. As appropriate, State CN staff or FNS staff may contact the most reluctant respondents to underscore the importance of the study.
- To partially compensate for the burden on responders, school foodservice managers and school liaisons will receive a compensation payment for the time they spend responding to data collection requests School food service managers will be reimbursed $\$ 50$ for the time they spend completing the menu survey. Respondents can donate this payment to the school if required by school policy. In addition, school liaisons completing the competitive foods checklist in middle and high schools will be reimbursed for their time. The amount of time required to complete the checklist will vary, depending on the number and type of vending machines to be inventoried and the nature of the competitive food environment (options such as school stores and snack bars are more available in high schools). Therefore, reimbursement will vary, as summarized below:

Middle or high schools with five or fewer beverage machines-\$15
Middle schools with six or more beverage machines-\$30
High schools with six or more beverage machines-\$35

- School foodservice managers will receive reminder telephone calls prior to and during the week they are scheduled to complete the menu survey. These telephone contacts will also be used to provide guidance and technical assistance to respondents as they collect and record menu survey data (Appendices E and F).
- When principals designate a school liaison to complete the competitive foods checklist, they will be reminded about the importance of alerting the individual to the study and to the expectations for their participation (See Appendix H for a hard copy of the survey instrument and the electronic mailings that will be used to communicate with principals.).
- The introductory e-mail sent to school liaisons will make specific mention of the principal who assigned them to participate in the study and the principal will be copied on the e-mail (Appendix K).
- SFA directors, principals, and school liaisons who have not completed data collection will receive e-mail reminders on a routine basis to promote response. Those who fail to respond to e-mail reminders will be contacted by telephone (Appendices H , J , and K).
- All respondents' information will be kept confidential and not be disclosed by the analysts conducting this research, except as otherwise required by law.


## 4. Test of Procedures or Methods to be Undertaken

A pretest was conducted the week of December 1, 2008 to test procedures for collecting data on: (a) foods and beverages offered and selected in afterschool snacks and (b) competitive foods. Pretests were necessary for these data collection components because none of the previous SNDA studies collected data on the foods and beverages offered and served in afterschool snacks and because SNDA-III used contractor staff to collect data on competitive foods.

Respondents were recruited from four SFAs in New Jersey (where the contractor's main office is located). Nine food service managers participated in a pretest of the afterschool snack data collection and staff members in six other schools participated in a pretest of the competitive foods data collection. Survey materials and supporting documents were sent to respondents using the methods that will be used in the main study. In addition, to replicate planned procedures, afterschool snack respondents received a technical assistance/training call to review instructions for completing the afterschool snack form and competitive foods respondents were provided with a web link to the training document and survey forms. ${ }^{6}$

[^3]Respondents participated in group debriefing calls with contractor staff. During these calls, respondents were asked to comment on the clarity and completeness of e-mail and telephone communications, survey forms, and supporting materials; the burden associated with completing the data collection (including time spent reviewing instructions/training documents); the appropriateness of the planned compensation; and potential improvements to procedures or materials. Generally, respondents reacted favorably to study materials and were comfortable with both the response burden and the planned compensation. Respondents offered some suggestions for minor adjustments to the instructions/forms, which have been incorporated into the versions included in this request for OMB review. The most important finding from the pretest was that communications with school liaisons should specifically mention the principal's name and the fact that the principal provided the respondent's name as the person who would complete the competitive foods checklist. Pretest respondents suggested that, without this specific comment/link, school liaisons may be more likely to delete the unsolicited introductory e-mail from an unknown person. Respondents also stressed the importance of reminding the principal to speak with the designated competitive foods respondent to underscore their commitment to having the school participate in the study.

## 5. Individuals Consulted on Statistical Aspects and Individuals Collecting and/or Analyzing Data

The information will be collected and analyzed by Mathematica Policy Research, Inc. (MPR). The sampling procedures were developed by John Hall of MPR, building on previous work on the SNDA-III project, which was completed by John Hall and Jim Ohls. The SNDAIII sampling procedures built on an earlier contract with USDA's Economic Research Service (ERS) which developed a study design for an Integrated Study of School Meal Costs and

Outcomes. That study design was developed by Michael Sinclair (then with MPR) and by Michael Battaglia and K.P. Srinath of Abt Associates.


[^0]:    ${ }^{1}$ See: http://www.census.gov/hhes/www/saipe/district.html.
    ${ }^{2}$ Under this criterion, districts that are not part of a supervisory union are considered ineligible if the district-level report on the CCD does not indicate any schools or any students in grades K-12; and (a) the district does not have the same NCES identifier, or Local Education Agency ID (LEAID), as any school in the school-level file or (b) any school having the district's LEAID is closed or has no students. Districts that are part of a supervisory union are considered ineligible if the district meets the ineligibility criteria for the non-supervisoryunion districts and, in addition, does not link to any other eligible district (through its UnionID).

[^1]:    ${ }^{4}$ We expect to make contact with 947 schools to obtain cooperation from 900. However, the number of schools sampled must be larger so that we will have backups in all SFAs where there are more than three schools.

[^2]:    ${ }^{5}$ If the elementary or high school stratum has only one school, then the extra school will be assigned to the middle school stratum; if the middle school stratum has only one school, then the extra school will be assigned to the elementary stratum.

[^3]:    ${ }^{6}$ In the main study, school foodservice managers will receive technical assistance calls that will cover all of the forms included in the menu survey, not just the form for afterschool snacks.

