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Volume II: Sampling and Data Collection Methods

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Volume II
Sampling and Data Collection Methods

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CHAPTER 1
INTRODUCTION

The National School Lunch Program (NSLP) and the School Breakfast Program (SBP) provide meals to children during the school year. The overarching goal of both programs, known collectively as the school meal programs, is to ensure that children do not go hungry—that they have access to nutritious meals that support normal growth and development. The programs provide a safety net for children from low-income families, who are eligible to receive school meals free or at a reduced price. In recent years, program administrators at the Federal, State, and local levels have worked to enhance the nutritional quality of school meals, to better align them with the dietary practices recommended in the *Dietary Guidelines for Americans*.

The U.S. Department of Agriculture (USDA), which administers the school meal programs, has assessed the programs on a periodic basis since the 1980s. The fourth School Nutrition Dietary Assessment study (SNDA-IV) was conducted by Mathematica Policy Research under contract with USDA's Food and Nutrition Service (FNS). This report is the second of two volumes of the SNDA-IV final report. This volume describes the study methodology, including sample design, data collection, coding procedures for school menu data, and construction of sample weights necessary to obtain nationally representative estimates from the study sample. Study findings are presented in Volume I and in a separate summary report.

SNDA-IV included a small supplementary sample of schools participating in USDA's HealthierUS Schools Challenge (HUSSC) program. All of the data collected in SNDA-IV were collected for these schools, and the data were processed and analyzed using comparable approaches. However, this sample of schools was completely separate from the main SNDA-IV sample. Thus, details provided in this report about sampling (Chapter 2), response rates (Chapter 3), and calculation of sampling weights (Chapter 4) do not apply to the supplementary sample of HUSSC schools. See Volume I, Chapter 12 for information about the supplementary sample of HUSSC schools.

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CHAPTER 2
SAMPLE DESIGN AND SELECTION

The school meal programs are administered at the local level by School Food Authorities (SFAs), which usually are individual school districts or small groups of districts. The overall objective of the sampling plan was to provide nationally representative samples of public SFAs and schools that participate in the NSLP. The sample design included two samples—the SFA-only sample, which collected data only at the SFA level, and the SFA-plus-school sample, which collected data at both the SFA and school levels. A stratified two-stage sampling approach was used, with SFAs selected first and schools selected second, within a random subsample of sampled SFAs. In sampling terms, the primary selection unit (PSU) was the SFA and schools were the secondary selection units (SSUs). As in previous SNDA studies, the respondent universe included all public SFAs and schools participating in the NSLP and located in the contiguous 48 states and the District of Columbia.[1]

A. Sampling Frames

Two sampling frames were required, one to select PSUs and the other to select schools (SSUs) within sampled PSUs. Developing the sample frame of PSUs required the use of multiple lists because no comprehensive frame of SFAs with all of the information needed for stratification exists. We relied primarily on the National Center for Education Statistics (NCES) 2006-2007 Common Core of Data (CCD) Local Education Agency (LEA) Universe Survey Data (http://nces.ed.gov/ccd/pubagency.asp).[2] Not all of the LEAs (school districts) identified in the CCD are SFAs, so we also employed a file provided by FNS containing data from the School Food Authority Verification Summary Report (FNS-742). Since the FNS-742 file contains records of SFAs, merging it to the CCD file of school districts enabled us to determine, in some cases, which school districts are SFAs. Districts that were not identified as SFAs via matching with FNS-742 were screened for SFA status. In addition, we used the U.S. Census Bureau's Small Area Income and Poverty Estimates (SAIPE), (http://www.census.gov/hhes/www/saipe/district.html) to obtain district-level estimates of school age children in poverty.

The sampling frame for selecting the SFA sample was a list of PSUs. Before forming PSUs, districts on the CCD that were clearly ineligible were removed. These included districts that:

- were found only on the Census (SAIPE) file and not on the CCD
- were located outside the contiguous (48) United States plus the District of Columbia
- were State or federally operated agencies
- had ceased to operate (according to the CCD)

[1] SNDA-I, which included private schools, was an exception to this rule.

[2] This was the most recent version of the database available at the time the sampling frame was constructed.

- reported no schools or students and could not be connected to any other eligible district, to an operating school, or to students on the school-level CCD file.[3]

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).[4] The reason for keeping groups of districts or SFAs in a common supervisory union together was that within a supervisory union there may be a single SFA that serves multiple districts. If there were multiple SFAs in any PSU, we sampled a single SFA for data collection. Separate sampling frames of SSUs (schools) were constructed within each SFA selected for the SFA-plus-school sample. The school- level frames employed the CCD 2006-2007 Public Elementary/Secondary School Universe Survey (http://nces.ed.gov/ccd/pubschuniv.asp) as the main source of information.

B. Stratification

Two samples of PSUs were selected using somewhat different methods: (1) a sample large enough to yield approximately 300 SFA Director Surveys, but no school surveys (the SFA-only sample); (2) a large enough sample of SFAs so that, in addition to approximately 300 SFA additional SFA director surveys, school-level data could be obtained from approximately 900 schools in those SFAs (the SFA-plus-school sample). To select these samples we first stratified the entire frame of PSUs, and then randomly divided the frame in half. Stratified samples were then selected from each frame, using the same strata used in dividing the frame. The stratifying variables used were region, urbanicity, poverty level, enrollment, and number of schools in the SFA. Each PSU sample was selected using probability proportional to size (PPS) sampling methods with different measures of size (MOS) used for the two samples. The MOS for the SFA-only sample was the square root of the number of schools; for the SFA-plus-school sample, the MOS was the number of schools.[5]

After the MOS had been assigned, the next step was to define certainty selections—those with a MOS so large that their probability of selection in a PPS sample would be 1.0 or close to 1.0. There were two levels of certainty selection. Some SFAs had a large enough number of schools to be designated as a certainty selection for the SFA-only sample; however, not all of these had enough schools to be selected with certainty for the SFA-plus-school sample. Thus, the first two strata were:

- SFAs with enough schools to be designated as certainty selections for both the SFA-only and SFA-plus-school samples—these were assigned to the SFA-plus-school sample.

[3] Under this criterion, districts that are not part of a supervisory union were considered ineligible if the district level report (on the CCD) did not indicate any schools or any students in grades K-12, and (a) the district did 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 was closed or had no students. Districts that are part of a supervisory union were considered ineligible if the district met the ineligibility criteria for the non-supervisory-union districts and, in addition, did not link to any other eligible district (through its UnionID).

[4] Districts where, on the CCD, TYPE06 = 2 or 3 belong to supervisory unions.

[5] Use of the square root measure for the SFA-only sample assured representation of large SFAs and more precise SFA-level estimates. The SFA-plus-school sample was intended to provide estimates for both SFAs and schools. Using the number of schools as the MOS for this sample increased the precision of school-level estimates.

- SFAs large enough to be designated as certainty selections for the SFA-only sample but not the SFA-plus-school sample—these could be randomly assigned to either sample and were treated as certainty selections if they were assigned to the SFA-only sample.

The SFAs large enough to be certainty selections for the SFA-only sample but not the SFA-plus-school sample were further stratified when the subsample of SFAs was selected for the SFA-plus-school sample, using the same stratifying variables as those used for PSUs not large enough to be selected with certainty.

PSUs not large enough to be designated as certainty selections (referred to below as non-certainty PSUs) were assigned to non-certainty strata before selection of the SFA-only sample. In addition to including FNS region (of which there are seven), the following stratifying variables were constructed:

- **Degree of Urbanicity.** The CCD defined 12 levels. We defined three levels: in a city, in a suburb or town, or in a rural area.
- **District Child Poverty Level.** We defined two levels of poverty: high poverty, which included PSUs where prevalence of school-age children in poverty was estimated to be 30 percent or more, and lower poverty, which included the remainder of PSUs. We derived poverty estimates first from the U.S. Census SAIPE files. In cases where there SAIPE data were not available, we imputed the prevalence of children in poverty using data on the CCD, including district type, number of students certified for free meals, and degree of urbanicity.
- **Enrollment.** Because we sampled with PPS and had certainty strata, the value of stratifying the non-certainty PSUs by size is diminished. However, to ensure that smaller SFAs were represented, we formed two size categories in each FNS region: above or below the median enrollment among non-certainty PSUs for that region.
- **Number of Schools.** We formed four categories: 1 to 4 schools, 3 to 5 schools, 6 or 7 schools and more than 7 schools.

C. Sample Allocation and Selection

Before selecting the two samples, the overall frame was randomly divided into 2 frames. PSUs with enough schools to be designated as certainty selections (see preceding discussion) for both the SFA-only and SFA-plus-school samples were assigned to the frame for the SFA-plus-school sample. Half of all remaining SFAs were randomly assigned to the SFA-only sample frame and the remainder to the SFA-plus-school sample frame. From each frame, we selected a sample of PSUs using PPS methods. An initial sample of PSUs was expanded to allow for ineligibility (not all PSUs defined in the frame contained a study-eligible SFA) and nonresponse.

Certainty selections were made first. Then, a sample of pairs of non-certainty PSUs was made. Selections were made so that the PSUs in a pair were similar with respect to characteristics used for stratification. Within each pair, one PSU was randomly designated as the main selection and the other

as reserve. The reserve PSU was typically used only if the main selection in its pair was ineligible or declined to participate in the study.[6] This method helps assure that the final sample resembles the initial sample on characteristics used for stratification. Because there were instances where both members of a pair did not participate, the initial sample included 21 extra (back-up) pairs within each stratum, defined by region and degree of urbanicity. These extra pairs were used only in cases where complete pairs did not participate (due to ineligibility or nonresponse).

Of the certainty PSUs with enough schools to be retained with certainty for both the SFA-only and SFA-plus-school samples, three were considered large enough to receive a double allocation of schools (and to represent two SFAs each).[7] Because of the double allocation, the number of unique SFAs in the SFA-plus-school sample was reduced by three.

Non-certainty pairs of PSUs (with the exception of back-up pairs) were randomly assigned to be part of the SFA-only sample or the SFA-plus-school sample. Schools were sampled in the designated subsample of SFAs (298 SFA equivalents) that were sampled for the SFA-plus-school sample. Strata were defined within SFA by school level (elementary, middle, or high), and schools were selected with equal probability within strata, within SFAs. The target was one school of each type within an SFA. However, because some SFAs had fewer than three schools and some SFAs did not have schools in all strata, some SFAs were allocated extra schools. Thus, while most SFAs in the SFA-plus-school sample had three sampled schools, some had one or two and others had four. Those with a double allocation had a target of six.

For PSUs where the target was three schools and each stratum contained at least two schools, the initial sample included two from each stratum, for a total of six. Allocations for PSUs that had a target of three schools but had other school configurations were as follows:

- If the PSU contained at least six schools but one stratum contained no schools, then three were selected from each of the other two strata, for a total of six.
- If a PSU contained at least six schools, all in one stratum, then six were selected from that stratum.
- If a PSU contained at least six schools, but one stratum contained only one school, then the only school in that stratum was selected and the other school that would have been allocated to that stratum was assigned to another stratum.[8]
- If a PSU included at least six schools, but two of the strata had only one school, then four schools were selected from the other stratum.

[6] In a few instances, SFAS participated in the study after earlier indications of their intent not to do so. If their corresponding reserve selection had already been released, both selections then remained in the sample.

[7] We calculated the number of "PSU equivalents" for each PSU, where one PSU equivalent is equal to the sum of all the PSU sizes (in the SFA-plus-school frame) divided by 300 (the desired number of SFAs participating in the study from this frame). For PSUs with more than 1.8 PSU equivalents, we allocated a double sample of schools.

[8] If the elementary or high school stratum had only one, then the extra school was assigned to the middle school stratum; if the middle school stratum had only one, it was assigned to the elementary stratum.

If the PSU contained fewer than six schools, all schools were selected. In cases where PSUs received an allocation of four school interviews, the initial sample was eight schools. (Only PSUs with 8 or more schools received an allocation of four schools.) The distribution of the schools selected in these PSUs depended on the distribution of the expected shortfall among small SFAs with few schools or with no schools in some strata. The samples of schools were selected in two steps, each with equal probability within stratum, within SFA. First we selected a sample from the 2006–2007 CCD. After that selection, the preliminary file for 2007–2008 became available.[9] If we found schools in sampled SFAs on the more recent CCD that did not appear on the earlier version, these were selected and the initial sample for the SFA was selected from among schools selected on the two versions of the CCD. If the initial sample was four, five, or six schools, three schools were randomly selected as the main sample, and the others were designated as a reserve to be used in case of ineligibility or nonresponse. Similarly, if the initial sample was eight or more, half were randomly selected as the main sample. To the extent possible, a non-participating or ineligible school in the main sample was replaced by a reserve from the same stratum.

As discussed further in Chapter 3, there was some nonresponse at both the SFA and school levels, as well as variation in nonresponse across the different data collection instruments administered at the school level. Table 2.1 shows the respondent universe, initial samples, and completed samples for each level and instrument. Data collection instruments are described in Chapter 3.

Table 2.1. Respondent Universe, Initial Samples, and Completed Samples

	Respondent Universe	Initial Sample	Completed Sample
SFAs — recruited	14,500	747	595
SFA Director Survey	14,500	595	578
Schools — recruited	102,000	1,059	902
Menu Survey	102,000	902	884
Foodservice Manager Survey	102,000	902	876
A la Carte Checklist	102,000	902	895
Principal Survey	102,000	902	721
Vending Machine Form	102,000	902	680
Other Food Sources Form	102,000	902	732

Note: Recruited SFAs includes SFAs in both the SFA–only and SFA–plus–school samples. SFAs in the SFA–only sample were not formally recruited into the study.

[9] We did not believe it advisable to wait for the later, preliminary file for the main sampling because the preliminary CCD files may not be as complete as the final versions and are more likely to contain incorrect information.

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CHAPTER 3
DATA COLLECTION

As described in Chapter 2, the study included two samples—the SFA-only sample, for which data were collected only at the SFA level, and the SFA-plus-school sample, for which data were collected at both the SFA and school levels. For the SFA-plus-school sample, the first step in the data collection process was recruiting SFAs to participate in the study. SFAs included in the SFA-only sample were not formally recruited into the study. Rather, SFA directors (the only respondents in the SFA-only sample) were invited by e-mail to complete the web-based SFA director survey.

A. Recruiting SFAs in the SFA-Plus-School Sample

Recruitment began by securing support for the study at the national, regional, and State levels. Endorsements were obtained from the School Nutrition Association (SNA) and the American Dietetic Association's School Nutrition Service dietetic practice group. The SNA provided a letter for inclusion with study recruitment materials. The recruiting team contacted Child Nutrition (CN) liaisons in each of FNS's regional offices and State CN directors by e-mail and telephone. State CN directors were requested to provide contact information for each of the SFAs sampled in their States. They were also asked to directly encourage sampled SFAs to participate in the study.

Recruitment materials were mailed to directors of sampled SFAs. The mailing included an introductory study letter listing the sampled schools within the SFA, the SNA letter of support, and a study fact sheet. Followup telephone calls were made by recruiters to confirm receipt of the mailing, describe the study objectives and participation requirements, and address any questions or concerns the SFA director might have. Recruiters then reviewed the list of sampled schools and sought the SFA director's approval for each school's participation. In cases where individual sampled schools in an SFA were closed, ineligible under the study design, or refused to participate, replacement sampled schools were presented to the SFA as an alternative for study participation. A target week was agreed upon for menu survey reporting, and the SFA recruitment interview was completed. This interview gathered basic information about the SFA and sampled schools within the SFA that was needed for planning data collection.

A followup mailing was sent to SFA directors who agreed to participate in the study. The mailing included a letter to the SFA director that confirmed the schools participating in the study and the agreed upon target week. It also included letters and copies of the study fact sheet for the foodservice managers and principals in each of the sampled schools, which SFA directors were asked to distribute.[1]

A total of 382 SFAs in the SFA-plus-school sample were released for recruitment. Twenty SFAs were found to be ineligible and 298 agreed to participate in the study, resulting in an 82 percent recruitment rate among SFAs in the SFA-plus-school sample (Table 3.1). This rate is based on all SFAs ever part of the recruitment effort, including replacements for SFAs in the main sample that refused to participate. SFA directors generally agreed to have all of the sampled schools in their

[1] Direct contact was made with school foodservice managers, principals, and other school-level respondents as part of the various data collection tasks. A separate data collection contact was also made with SFA Directors to complete their own survey.

district participate in the study. In SFAs that agreed to participate, 98 percent of the sampled schools were successfully recruited.

Table 3.1. Final Recruitment Samples

	Number of SFAs/Schools					
	Recruited	Closed	Ineligible	Refused	Total	Percent of Eligible SFAs/Schools Recruited
SFAs	298	N/A	20	64	382	82.3
Schools	902	39	102	16	1,059	98.3
Elementary	316	14	18	3	351	99.1
Middle	297	13	20	6	336	98.0
High	289	12	64	7	372	97.6

Note: Table includes only SFAs in the SFA-plus-school sample.

B. Data Collection Procedures

Data were collected from January through June 2010. Respondents included SFA directors, school foodservice managers (FSMs), and principals. In addition, an individual designated by the principal provided information about foods available in vending machines, school stores, and other venues outside of the school meal programs. Table 3.2 shows the data collection instruments used, along with information about respondents and mode of data collection.

Table 3.2. Data Collection Instruments

Instrument	Respondent	Mode
SFA Level		
Recruitment Interview	SFA director (only SFAs in the SFA-plus-school sample)	Telephone
SFA Director Survey	SFA director	Web, with telephone followup
School Level		
Menu Survey	School foodservice manager	Mail with intensive telephone-based training, technical assistance, and followup
A la Carte Checklist	School foodservice manager	Mail
Foodservice Manager Survey	School foodservice manager	Mail
Principal Survey	Principal	Web, with telephone followup
Competitive Foods Checklists Vending Machines Other Sources of Foods/Beverages	Principal's designee	Fax-back, with training module[a] and telephone followup

[a]A PowerPoint (converted to pdf format when necessary) training module discussed the data collection forms in detail, described the protocol for completing and returning the forms, raised ambiguous situations and provided instructions on how to address them, and answered frequently asked questions.

1. SFA-Level Data

The recruitment interview was completed only for SFAs in the SFA-plus-school sample. This interview was completed with SFA directors as soon as they agreed to participate in the study. The interview focused on selected schools within the SFA and requested basic information required to assess study eligibility and the accuracy of sample frame data and to plan for and support data collection at the school level. Information collected for sampled schools included whether the school participated in the NSLP (only schools that participated in the NSLP were eligible for inclusion in the study) and the SBP; whether they offered afterschool snacks through the NSLP; the grades included in the school; the type of menu-planning and meal-preparation systems used; and contact information for the school's FSM. Few variables were used for analytic purposes and those that were used were added to other school-level files.

The web-based SFA director survey collected data on SFA policies and practices regarding menu planning, a la carte foods, food purchasing, food safety and sanitation, nutrition promotion, and school wellness policies.

2. School-Level Data

At the school level, data were collected from the FSM, the principal, and a school staff member designated by the principal. The central component of the data collection—the menu survey—is described in detail below. In addition to the menu survey, the following instruments were used:

- **A la Carte Checklist.** The a la carte checklist documented whether a la carte foods were available to students at breakfast or lunch and, if so, the specific foods and beverages that were available. The checklist was completed by the FSM on one randomly assigned day during the target week.
- **School Foodservice Manager Survey.** The FSM survey collected information about the characteristics of school kitchens, availability and revenue from school foodservice-operated vending machines, meal pricing, scheduling of meal periods, nutrition promotion activities, and practices used to count reimbursable meals and to distribute and count afterschool snacks.
- **Principal Survey.** The web-based principal survey collected information on mealtime policies (including whether students were allowed off campus and what the rules were about buying a la carte foods), other activities scheduled during mealtimes, vending machines, school stores and snack bars, requirements for nutrition education and physical education, opportunities for physical activity during the school day, and school wellness policies.
- **Competitive Foods Checklists.** The competitive foods checklists were completed by a member of the school staff designated by the principal. The checklists documented the presence of vending machines (vending machines checklist), school stores, snack bars, fundraisers, and other sources of foods and beverages (other sources of foods and beverages checklist), and the specific foods available in each venue. Respondents received a training module, which could be accessed using a web link or received by e-mail. The training module discussed the data collection forms in detail, described the protocol for completing and returning the forms, raised ambiguous situations and provided instructions on how to address them, and answered frequently asked questions.

For some schools, the competitive foods checklists were completed by telephone. To obtain cooperation in these cases, data collection was limited to documenting the types of competitive food venues available. Detailed information about the specific foods and beverages available in the various venues was not collected.

a. The Menu Survey

The goal of the menu survey was to collect detailed data on all foods offered and served in NSLP lunches, SBP breakfasts, and afterschool snacks (if offered). Data needed to be sufficiently detailed to support a comprehensive assessment of nutrient content. Data were collected for one school week, referred to as the "target week." The target week typically included five school days. However, due to holidays and other school closings, some schools provided data for only four days and a very small number of schools provided data for only three days.

The menu survey was completed by FSMs who received training and intensive support from specially trained Mathematica technical assistants (TAs). The survey included the following five forms:

- **Daily Meal Counts Form.** The daily meal counts form was used to report the number of reimbursable breakfasts and lunches served, by reimbursement category, each day of the target week. It also captured information about total a la carte revenue during the target week.
- **Reimbursable Foods Form.** This form was used to identify foods and beverages offered to students in reimbursable meals each day of the target week. Separate forms were completed for breakfast and lunch. The form was designed to obtain, for each food and beverage offered, descriptive details needed for accurate nutrient analysis, portion sizes, and the number of portions served or sold in reimbursable meals.
- **Self-Serve/Made-to-Order Bar Form.** This form was used to list and describe foods offered in condiment/finishing bars, salad bars, sandwich bars, and other self-serve and made-to-order bars. For bars offered more than once during the target week, respondents were asked to list all ingredients only on the first day the bar was offered. Information provided on the ingredients offered on the bar was used to create a "recipe" to estimate the nutrient content of an average serving from the bar.
- **Recipe Form.** FSMs were asked to complete a recipe form for all foods prepared from scratch or by combining two or more foods or ingredients. The form collected information about ingredients, yield, and preparation methods. To minimize the level of effort needed to report recipes and reduce the potential for missing information, respondents were free to provide copies of their own printed recipes rather than copying them onto the form. However, instructions provided with the form emphasized the need to edit printed recipes if ingredients had been modified, for example, if ground beef had been substituted in a recipe that calls for ground turkey, or vice versa.
- **Afterschool Snack Form.** This form captured data on foods offered and served in reimbursable afterschool snacks during the target week, as well as information about the total number of snacks served each day.

To aid respondents in organizing this elaborate instrument, forms were assembled into a carefully designed packet. Key features of the Menu Survey packet include:

- **Color Coding.** Each form was a different color so forms could be easily identified by both title and color. In the instruction booklet, instructions for each form incorporated the corresponding color ink.
- **Simple, Clear Instructions, with Samples of Completed Forms.** Respondents received an instruction manual that provided simple, yet complete instructions for completing each form. The manual included clearly marked samples of completed forms which provided respondents with examples of how information should be entered on each form.
- **Tip Sheet.** A tip sheet, printed on cardstock, provided a one-page summary of key instructions for each form. The tip sheet provided a quick reference for respondents so they did not have to reference the full set of instructions each time they had a question about a form.
- **Portfolio.** Menu survey materials were presented in an attractive plastic, multi-pocket portfolio. The portfolio kept survey forms separate and neatly organized for each day of the target week.
- **Bar Codes.** Pre-printed bar code labels were used for each form, so that respondents did not have to label each form with the school name and study identification number.

The Menu Survey packet also included the FSM survey and a $50 incentive check to thank FSMs for their time and efforts.

b. Menu Survey Data Collection Procedures

Prior to the target week, TAs initiated contact with the FSM in each sampled school. The TA introduced the study, established rapport with the FSM, and confirmed the target week. The TA then made arrangements for the menu survey packet to be shipped to the FSM. After the FSM had received the menu survey packet, but prior to the target week, the TA conducted a telephone training session. The training covered the contents of the menu survey, procedures and schedule for completing the survey, and frequently asked questions. Depending on SFA directors' preferences, the training call was conducted jointly for all schools in the SFA or separately for each school.

Following the training, TAs had direct responsibility for working with FSMs to ensure that the menu survey was completed in an accurate and timely manner. The protocol called for TAs to:

- Place a reminder call the day before the target week began to confirm that everything was on track to begin the survey and to highlight helpful hints about survey completion.
- Be reachable at a toll-free telephone number during normal foodservice operation hours to address any questions from respondents about survey instructions, forms, and procedures.
- Contact respondents periodically during the target week to review instructions, assist with completing forms, and answer questions as needed. (The final contact included a reminder to complete the FSM survey.)
- Issue reminders (as needed) following the target week to encourage prompt return of the completed survey.

- Perform a quality control review of the returned and completed forms, with prompt followup to obtain any missing or incomplete information, or to discuss corrections while the information was still recent.

3. Survey Results

Final completed sample sizes and response rates are shown in Table 3.3. SFA directors and school foodservice managers that agreed to participate in the study were very cooperative with the data collection. The response rate for the main component of the study—the menu survey—was very high, at 98 percent. Gaining cooperation from school principals was more challenging. The SFA directors who agreed to participate in the study did not have the authority to compel principals to participate, as they generally did with FSMs. The finite end date for the data collection period (the end of the school year) limited the amount of followup that could be done with nonresponding principals. The responsiveness of principals also affected response rates for the competitive foods checklists, since the data collection protocol called for the principal to designate a respondent for those instruments. For these reasons, response rates for the principal survey and the competitive foods checklists were lower than for the other components of the study.

Table 3.3. Final Sample Sizes and Response Rates

	Completed Sample Size	Weighted Response Rate (%)
SFA Director Survey	578	94.0
Menu Survey	884	97.7
Foodservice Manager Survey	876	96.7
A la Carte Checklist	895	99.5
Principal Survey	721	87.2
Vending Machine Checklist	680	79.0
Other Sources of Foods and Beverages Checklist	732	88.1

Notes: All response rates are weighted using raw sampling weights—that is, weights that correct for unequal probability of selection, before any nonresponse adjustments.

Sample size and response rate for the SFA director survey includes SFAs in both the SFA-only and SFA-plus-school samples.

Data collection response rates reflect the percentage of eligible SFAs/schools that completed each instrument, given that the SFA/school had been recruited and agreed to participate.

CHAPTER 4
PROCESSING OF SCHOOL MENU DATA

To assess the food and nutrient content of reimbursable school lunches, breakfasts, and afterschool snacks, the data collected in the menu survey had to be entered into a nutrient analysis system that ultimately provided nutrient amounts for every item included on the menus. We used USDA's Survey Net system for this purpose. Survey Net includes nutrient values from the USDA National Nutrient Database for Standard Reference, Release 20 (Agricultural Research Service, Nutrient Data Laboratory, 2008). Because Survey Net was developed for the analysis of individual dietary intake data, we faced some challenges in using the system for processing school menu data. Most of these challenges were met through the creative use of existing data fields and training.[1] In addition, we developed a separate food grouping system to describe the foods offered in school menus. The food grouping scheme is described in Volume I of the report (Appendix B) and is not repeated here.

A. Staffing and Training

Menu survey data were processed in Mathematica's Cambridge, Massachusetts office under the direction of a senior nutritionist. A team of 20 nutrition coders and 3 coding supervisors was recruited and hired locally. Supervisors had advanced nutrition degrees, previous research experience, and had worked with computerized nutrient analysis systems in the past. Coders had at least an undergraduate degree in nutrition or previous experience in foodservice, as well as a range of computer skills.[2]

All nutrition coders and coding supervisors were trained by the senior nutrition staff to use the Survey Net food coding system and on the specific procedures developed for processing the menu survey data. Four 8-to-10-hour training sessions were conducted to cover each of the main components of the data processing task. Two initial training sessions held on consecutive days covered the process of reviewing and editing the menu surveys. Two months later an additional two training sessions were conducted to instruct coders on entering menu surveys into Survey Net. Training procedures included group instruction and demonstration, supervised hands-on practice, and exercises to be completed and checked by the supervisors before beginning work with "live" data. Detailed training and reference manuals were provided.

Training sessions covered the review, editing, and data entry of the menu survey forms. Prior to familiarizing the coders with the various menu survey forms, some background information was provided, such as the concepts of reimbursable versus a la carte menu items, meal patterns/components, menu-planning systems, and quantity recipes. Coders were then trained to review and prepare the menu surveys for data entry and, subsequently, to enter the menu items,

[1] Some data fields in Survey Net that applied to dietary intake data, such as time of day, eating occasion, and where the food was obtained, were not needed for analysis of school menu data. Therefore, these fields were used for the entry of other information essential to the menu analysis, including daily meal counts and the number of reimbursable portions of each menu item served.

[2] Six of our most experienced TAs edited and coded one of the menu survey forms (the Self-Serve Bar Forms). TAs were trained and their work was supervised and reviewed by of one of the study's co-investigators. Self-Serve Bar Forms were then entered into Survey Net by nutrition coders.

portion sizes, recipe modifications, and meal and food count data into Survey Net.

B. Coding Procedures

Completed menu surveys were forwarded to Mathematica's Cambridge office by TAs (see Chapter 3), after they had completed data retrieval and final editing. The surveys were logged into an Excel database as they were received, and tracked through each step of data processing. Coding supervisors assigned all surveys from a given SFA to the same coder because of the potential for similarities in the menus, recipes, and purchased products across schools.

1. Review and Editing

Each menu survey was reviewed in a systematic manner to identify occurrences of missing information, inconsistencies within and across the various forms, and instances where the number of reimbursable portions was not directly reported but could be calculated from the data provided. During the initial review, coders also identified unambiguous linkages between food items (for example, syrup served with pancakes) and commonly offered pre-prepared foods (for example, pizza, chicken nuggets, or burritos). Coders also assigned numerical codes, needed for data processing, to identify entrees and accompaniments. Questions regarding missing, unusual or ambiguous data provided on the menus survey (such as missing meal counts, unusually large portion sizes, and ambiguous linkages) were flagged by the coders for supervisor review. Six TAs were responsible for the specialized coding of self-serve salad bars and other food bars. A checklist was used to promote consistency across coders and to ensure all review and editing steps were completed.

a. Missing Data

Attempts were made to reconcile missing data problems by cross-referencing with other menu forms in the survey and with surveys completed by other schools within the same SFA.[3] For example, if a food description or the portion size of a food was vague or incomplete, coders checked if the same or a similar food was served on other days of the week and filled in the information accordingly. When it appeared that condiments had been omitted, coders checked the forms completed for other menu days to determine if the school usually offered condiments when they served certain items and added them, if appropriate. The same procedure was used for salad dressings served with salads. Incomplete or missing manufacturer or brand information was obtained from forms for other days on which the food was served or from menu surveys completed for other schools in the district that offered the same items.

When portion size information could not be obtained from other survey forms and in cases where the students served themselves, coders assigned a standard default portion size. The default portion sizes used for lunch and breakfast menus were based on those used in the SNDA-III study.[4]

[3] Nutrition coders did not directly contact school foodservice staff to inquire about menu information that was missing or needed clarification. However, supervisors did contact TAs, who were often able to answer the coders' questions.

[4] With the exception of salad dressing, default portion sizes for SNDA-III and SNDA-IV were the same as those used in SNDA-II (see Fox et al. 2001, Appendix E). In SNDA-III, the default portion size for salad dressing was increased from ¾ tablespoon (originally defined in SNDA-I) to 2 tablespoons. The revised default portion, which was also used in SNDA-IV, reflects the average portion of salad dressing consumed by school-age children in the Continuing Survey of Food Intakes by Individuals 1994–1996, 1998.

b. Linked Menu Items

When a menu item, such as a topping or condiment, was clearly offered with another food item, the items were "linked" for analysis purposes.[5] Coders assigned special link codes to identify and categorize linked items. Salad dressings were always linked to salads. Other menu items were linked when the school foodservice manager reported offering the items together, as opposed to each item being available to all students (for example, spaghetti served with garlic bread, crackers served with salad, and rice served with stir-fried beef and vegetables).

Link codes were also assigned to the individual components of pre-plated meals, bag lunches, and multi-component foods to facilitate aggregation for nutrient analysis. A multi-component food was defined as a menu item for which ingredient and portion size information was provided, but which could not be entered into Survey Net as a single item. For example, chili cheese fries were not in the Survey Net database and could not be coded by modifying an existing recipe. Instead, this entree was entered as three separate items—french fries, cheese, and chili—and a link code was assigned to each item. Different link codes were assigned based on the types of foods being linked (for example, bread with additions and entrees with accompaniments).

c. Pre-prepared School Foods

Schools use many commercially prepared (pre-prepared) foods that are formulated specifically for school foodservice, sometimes with more whole grains, less fat, more vitamins or minerals, or added protein. As a result, the nutrient content of the pre-prepared school foods reported on the menu surveys may not be accurately represented by a similar product in the Survey Net nutrient database. During the review of the menu surveys, coders entered pre-prepared foods into a centralized database for tracking the most commonly served pre-prepared school foods. Each pre-prepared food was then assigned to one of 70 pre-prepared food groups used to categorize foods based on similar nutrient content. When coding was completed, this list was used to obtain accurate information about nutrient content, as well as USDA food group equivalents, from USDA's Agricultural Research Service (ARS). The process of working with ARS to obtain these data is described later in this chapter.

[5] All condiments that could have been taken with more than one food (that is, there was no indication on the menu survey that a condiment was linked to a specific food) were considered "unlinked" and were not assigned special link codes.

d. Self-Serve Food Bars

Coding the self-serve salad bars, theme bars (for example, Mexican, Italian, and potato bars), and condiment or fixins' bars was particularly challenging and was overseen by one of the study's co-investigators. By definition, students served themselves from these bars, there were few pre-portioned items, and the combinations of foods taken were not known. For example, entree salad bars offered the option to take different types of meats, cheeses, eggs, vegetables, and other items. It was unknown what types, combinations, and amounts of different food items each student truly selected from the food bar. Therefore, in order to define an average serving, detailed coding rules were developed for each type of food bar and for each meal component offered on the food bar, using a methodology employed by the previous SNDA studies. This approach assumes that students are offered everything on the bar and assigns default portion sizes to individual items on the bar based on minimum portions required for each specified meal component in food-based menu planning or on default portion sizes for items such as condiments and toppings.

e. Production Records

Some schools were unable or unwilling to complete the menu survey forms. To facilitate participation in these schools, we agreed to accept production records in the place of the menu survey forms. This accommodation was only made when the production records were detailed enough to provide essentially the same data as the menu survey forms and/or when SFA directors or FSMs were willing to provide missing information during followup contacts. A total of 55 schools in the final sample provided production records rather than completed menu surveys. For one of these schools, data on the number of portions served in reimbursable meals were not provided. This school had to be excluded from the analysis of meals served, leaving a total of 54 schools with production records included in the analysis.[6]

Production records provided by some schools were very similar in structure to the Reimbursable Foods Form and provided information about the number of individual portions of each menu item served in reimbursable meals. However, other schools provided information about foods served to students as information about the total quantities of food prepared and left over. In these instances, nutrition coders had to convert the data on bulk quantities to estimates of the number of individual portions. For example, if the form indicated that 30 pounds of raw carrots were prepared, 2 pounds were left over, and the portion size was ¼ cup cooked carrots, the coder calculated the number of ¼ cup servings of cooked carrots that 28 pounds of raw carrots would yield. Coders used the USDA Food Buying Guide for Child Nutrition Programs (U.S. Department of Agriculture, 2008) and measurement equivalents and conversion charts to minimize errors. After these calculations were completed, coders compared the total numbers of reimbursable servings of entrees and milk, and the number of servings of individual menu items to the total number of meals reported for that day. Large discrepancies were flagged for supervisor review to ensure they were not due to miscalculation of the number of portions served.

[6] One school provided production records that were too incomplete to substitute for the menu survey. This school was ultimately considered a nonresponder for the menu survey component of the study.

2. Entering Data into Survey Net

After a menu survey was reviewed, edited, and cross-checked by a supervisor or lead coder, it was ready for entry into Survey Net. Coders entered the information using procedures developed specifically for this study (building on the procedures used in SNDA-III). A separate file was created for each school, with separate records for each daily lunch and breakfast menu. Food items from the Reimbursable Foods Form were matched to the closest food in the database, considering characteristics such as the form of the food (fresh, canned, frozen), the preparation method (baked or fried), and characteristics that might affect nutrient content—particularly fat (regular versus low-fat or nonfat versions). To expedite the process of selecting the appropriate item in the database, coders were provided with search terms and food codes for commonly served foods. Information on portion size (reported or the assigned default) and the total number of reimbursable portions served was also entered for each menu item. In addition, for selected menu items, the link codes and entree and accompaniment flags that were added during editing, along with any special instructions pertaining to how a food should be treated in the analysis, were entered into Survey Net.

A set of coding guidelines was developed to assist coders and standardize entry of foods that were not thoroughly described. These guidelines were designed to reflect common school foodservice practices, which did not always correspond to the Survey Net "not further specified" option that is typically used in coding such foods. For example, if a school reported serving cooked carrots but did not specify whether fat was added in cooking, the options for entering the carrots into Survey Net included fat added, no fat added, and not further specified (NFS), which assumes fat was added. The menu coding guideline for this scenario was to assume that fat was not added (that is, select the "cooked carrots, fat not added" code).

Special procedures were developed for entering school recipes, self-serve food bars, and pre-prepared school foods (discussed in the next three subsections). For self-serve food bars and pre-prepared school foods, "placeholder" food codes were entered in the Survey Net menu files to flag the items for subsequent replacement of nutrient data.

a. Dealing with Recipes

Survey Net was not designed to allow users to add recipes to the database. However, existing recipes can often be modified to more closely match the foods reported. Coders followed specific guidelines to decide if recipe modification was appropriate. These guidelines (summarized in Table 4.1) were developed for and used in SNDA-III and were based on guidelines provided by USDA's Food Survey Research Group.

The decision to modify a recipe was based primarily on the importance of the modification to the overall fat content of the food and presence of whole grains. For example, if the school provided a recipe for a ham and cheese sandwich that was comprised of turkey ham and reduced-fat cheese, an existing recipe for a ham and cheese sandwich was modified to account for the lower-fat foods included in the school's recipe. Another consideration was the amount of the meat/meat alternate in school-prepared sandwiches, entree salads, and some Mexican foods, compared with the standard recipes for these foods in Survey Net. Single serving recipes for sandwiches, Mexican entrees and entree salads were modified when the amount of meat, cheese or bread provided in the school recipe differed from the Survey Net recipe by more than one-half ounce. When modified recipes were created, the ingredients and/or amounts that were changed were noted in the name assigned to the new recipe.

Table 4.1. Recipe Modification Guidelines

Menu Item	Allowed Modifications to *Type* of Ingredient: Type of Fat	Type of Meat	Type of Cheese	Type of Bread/grain	Type of Milk	Type of Mayonnaise or Salad Dressing
Vegetables, Dry Beans or Peas	√					
Rice and Pasta	√					
Eggs and Omelets	√					
Whipped/Mashed Potatoes	√				√	
Garlic Bread	√					
Cooked Cereal	√				√	
Macaroni and Cheese, Other Mixed Dishes with Cheese and Grain	√		√	√	√	
Mixed Dishes with Meat and Grain		√	√	√		
Pudding or Cream Soups					√	
Salads – NOT Lettuce-based						√
Sandwiches	√	√	√	√		√
Mexican Entrees	√	√	√	√		
Entree Salads		√	√			

Menu Item	Allowed Modifications to Ingredient *Amounts*[a]: Amount of Meat/ Meat Alternate[b]	Amount of Cheese[c]	Amount of Bread/Grain[d]	Higher-fat Ingredients[e]
Sandwiches	√	√	√	√
Mexican Entrees	√	√	√	√
Entree Salads	√	√		√

[a] Modifications to ingredient amounts were made only when the school recipe and the Survey Net recipe were single-serving recipes.

[b] Amounts of meat/meat alternates were modified only if the difference between the school recipe and the Survey Net recipe was more than ½ oz.

[c] Amounts of cheese were modified only if the difference between the school recipe and the Survey Net recipe was more than ½ oz.

[d] Amounts of bread/grain were modified only if the difference between the school recipe and the Survey Net recipe was more than ½ oz.

[e] Higher-fat ingredients (butter, margarine, mayonnaise, salad dressing, cheese) were deleted from Survey Net recipes if they were not included in school recipes.

There were limits to the feasibility of modifying recipes depending on how the recipe existed in Survey Net. For single-serving recipes (for example, recipes for sandwiches), both the amounts and types of ingredients could be modified easily. However, for recipes that yielded more than one serving, modifications were limited to ingredient substitutions. Changes to ingredient amounts could not be made because there was no way to account for the effect on the recipe's yield. Complications also arose when changing the type of meat in a quantity recipe. The form of the food (raw versus cooked) to be substituted was not always comparable to what was in the recipe. For example, cooked ground turkey (the only form of ground turkey in Survey Net) could not be substituted for raw ground beef in a recipe due to the effect on fat and moisture losses. In order to calculate the yield of a recipe, Survey Net takes into account the moisture and fat retention of each ingredient after cooking. Substituting a different form of an ingredient and/or altering the ingredient amount in quantity recipes would have required entering retention factor codes for each altered ingredient, which is not a simple or straightforward process.

b. Self-Serve Food Bars

Each unique self-serve food bar was entered separately from the rest of the menu survey, as if it were a "menu" of all of the food items offered on the bar. Default portion sizes were assigned to individual items on the bar based on the minimum portions required for specific meal components in food-based meal patterns: fruits/vegetables, bread/grain products, and meat/meat alternates. (Milk was not usually included on food bars.) For non-meal-pattern food items, such as condiments, toppings, salad dressings, and desserts, the same default portion sizes were used as for self-serve menu items not on bars.

If more than one option within a meal component group was offered, a recipe was created for the meal component group. The recipe "ingredients" consisted of a full portion of each item from the meal component group available on the food bar, and the recipe yield (number of servings) equaled the total number of items or ingredients. For example, a sandwich bar offered a choice of turkey, ham, or tuna, and a choice of white bread, a hoagie roll, or wheat bread. The recipe created to represent one average serving of meat from the bar would have a yield of three servings (since there are three meat ingredients). The coding rules for a sandwich bar also called for *two* average servings of breads/grains. In cases where the coding rules called for more than one serving from a meal component group, the yield of the recipe was equal to the total number of ingredients, divided by the desired number of servings. Thus, in this example, an average serving of breads/grains would have a yield of 3 bread/grain choices divided by 2 servings, or 1.5 servings. An average serving from the entire self-serve bar was the simple sum of the average nutrients per serving for each of the meal components included in the bar.

c. Imputing Missing Data on the Number of Portions Served

Many reported accompaniments (condiments, salad dressings, and toppings) were missing data on the number of portions served. This was mainly due to the nature of the data being reported as "self-serve." For linked accompaniments (for example, salad dressings and accompaniments such as cheese on broccoli or toppings on a taco) data on the number of portions served was imputed based on the number of portions reported for the menu item to which the item was linked. For unlinked accompaniments, data on the number of portions served was imputed based on the mean/median number of servings of accompaniments per meal, in schools that provided servings data.

3. Pre-Prepared School Foods

Since manufacturer food labels were not collected from individual schools, nutrient and ingredient information for pre-prepared school foods was researched on the Internet and obtained from selected manufacturers. The most frequently logged items were selected for additional research on nutrient and ingredient information by contacting manufacturers. Seventy pre-prepared food-type groups were created to identify which products needed further research. Food-type groups were defined as foods that seemed essentially "the same" based on their food description and any nutrients available. For example, four pre-prepared food-type groups were created to capture each type of cheese pizza served in schools, "cheese pizza," "cheese pizza reduced fat," "cheese pizza whole grain" and "cheese pizza reduced fat, whole grain." Two hundred of the most commonly reported pre-prepared foods, at least one for each of the 70 food-type groups, were sent to ARS for further analysis. ARS returned complete nutrient and food group profiles for each food. These data were used to replace the profiles for the placeholder foods that had been used in coding the menus.

4. Quality Control Procedures

During the initial phases of menu data processing, supervisors reviewed each coder's editing and entry for one SFA (three to four schools). Coders received detailed feedback and the process was repeated until a level of accuracy greater than 90 percent was achieved. In addition, during the editing phase, each menu survey was cross-checked by a second coder and any discrepancies were resolved by supervisors.

Menu data entry was also carefully reviewed by supervisors to ensure that the appropriate food selections were made from the database, portion sizes were entered correctly, coding rules were applied when necessary, and recipe modification guidelines were followed. Overall, full quality review checks were conducted for 15 percent of all menu surveys. A similar procedure was followed for the quality review of coding and entry of self-serve food bars. Every recipe modification created by coders was individually reviewed by a coding supervisor. Recipes were checked for compliance to guidelines and approved when acceptable. Incorrect or unnecessary recipe modifications were adjusted or deleted.

In order to maintain standardized procedures, coders attended periodic meetings and received "coder updates" clarifying issues that were identified or changes to procedures. Throughout the editing and entry phases, coders documented issues that arose in a central location, which facilitated supervisor followup. Coding guidelines were updated regularly, and coders were required to review updates each day. Supervisors were available at every shift to answer questions and resolve emerging issues. The senior nutritionist met weekly with coding supervisors to discuss coding progress and resolve coding issues they needed help with.

After all of the menu information was entered in Survey Net, a set of detailed data checks were performed to identify potential coding errors. Problem cases were identified, and each was reviewed and corrected by coding supervisors. The cleaning runs included the following types of checks:

- **Basic Data Integrity.** Daily menus were checked for missing data, duplicate entries, and valid values for the following items: school ID numbers, consecutive menu days and dates, minimum number of meal components, and number of meals served. Individual menu items were checked for valid and non-missing portion sizes, number of portions served, appropriate linking codes, and entree and accompaniment identifiers. Problem

cases were identified and checked against hard copy menu surveys, and corrections were made as necessary. Afterschool snack forms were checked for the minimum of at least two snack items offered each day. Self-serve food bars were also checked for valid values and the minimum expected items based on the type of bar.

- **Out-of-Range Menu Items.** Estimated per-serving nutrient values for individual foods were reviewed for calories, total fat, and sodium to identify possible outliers. Foods with nutrient values that were below the 5th or above the 95th percentile were identified and checked against hard copy menu surveys to verify entry. Corrections were made where appropriate. The same procedure was followed for self-serve food bars, with the assumption that the total nutrients for any particular food bar "menu" would be reasonably close to the expected range for one serving from the particular meal component group in which the bar falls. For example, the range of nutrients for entree salad bars, Mexican bars, and sandwich bars should have approximated the nutrients for other "entrees" on the main menus.

- **Over-Reporting of Portions Served.** Checks were run to identify cases where the number of servings reported for a menu item was greater than the total number of meals served. The number of servings of milk, side salad bars, french fries and tater tots, desserts, entrees, and salad dressings were adjusted to ensure that the weighted analysis would not overestimate the nutrient content of meals served. This was based on the assumption that students generally select no more than one milk, one entree and one serving of any particular side item per reimbursable meal. In addition, instances where the number of portions served for french fries, tater tots, and salad dressings was greater than the number of meals served were often cases where the manager provided the information as bulk amounts prepared and left over.

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CHAPTER 5
CALCULATION OF SAMPLE WEIGHTS

All of the analyses conducted for SNDA-IV report were weighted to produce estimates that are representative of public SFAs or schools participating in the NSLP in the 48 contiguous States and the District of Columbia.[1] Given the complex, multi-stage sample design, as described in Chapter 2, sample weights adjust both for unequal probabilities of selection at each stage of sampling and for nonresponse at each stage of data collection. Weights were constructed at two levels: SFAs and schools. The weights at the two levels are not independent—the final SFA base weight adjusted for SFA participation served as the initial weight at the school level. At each level, two sets of weights were constructed, one to represent SFAs or schools, and one to represent the students enrolled in the SFA or schools.

One set of weights was adequate for the data collected at the SFA level—the SFA director survey. However, because several data collection instruments were used at the school level (see Chapter 3) and schools did not necessarily complete all instruments, the weights for use in analysis of school-level data had to be adjusted to reflect school nonresponse to different instruments.

A. SFA-Level Weights

As discussed in Chapter 2, two samples of SFAs were selected, the SFA-only sample and the SFA-plus-school sample. Data from these samples were weighted separately and then a "composite" weighting factor was used to combine SFA directory survey cases from the two samples. For each sample, the initial weight at the SFA level is the sampling weight, which starts as the inverse of each PSU's probability of selection into the initial sample. At this point, each PSU included one or more school districts (not all districts are SFAs). Within each sample, the weights also incorporate: (1) adjustments for the selection of SFAs in multi-SFA PSUs; (2) adjustments for the release and participation of SFAs within PSU pairs; (3) nonresponse adjustments not accounted for by the PSU pair adjustments; and (4) poststratification. After making these adjustments, the weights from the two samples were combined using a compositing factor, then adjusted for nonresponse to the SFA director survey.

1. Initial Weights

The initial weight for the *kth* PSU in sample *j* (*j* identifying the SFA-only or SFA-plus-school sample) is:

$$SFAWGT1_{jk}=SWF1_{jk}*SWF2_{jk}$$

$SWF1_{jk}$ is the inverse of PSU *k*'s probability of being selected for frame *j*. Some large PSUs were selected with certainty for the SFA-plus-school frame; for these $SWF1_{jk}$=1.0. For all other PSUs, $SWF1_{jk}$=2.0 (since half of the PSUs not selected with certainty were assigned to each of the two frames).

[1] Analyses focused on the supplementary sample of HUSCC schools were an exception. Estimates for HUSSC schools were not weighted because the sample was not nationally representative.

$SWF2_{jk}$ adjusts for probability of selection into the SNDA-IV sample within each of the two frames and varies according to how the SFA was selected into the sample. Selection within the two SNDA-IV frames took place in three phases: (1a) selection from the SFA-plus-school frame of 640 PSUs, 86 with certainty and 544 with PPS, and (1b) the selection from the SFA-only frame of 642 PSUs with PPS; (2) within sampled PSUs with more than one SFA, random selection of one of those SFAs resulting in samples of SFAs (or potential SFAs) within each frame; and (3) the pairing of the selected SFAs and release of one or both for each contact.

For defining $SWF2_{jk}$, the SFAs in the SFA-plus-school frame sample were divided into two groups based on how they were selected into the sample. The groups were:

1. SFAs selected with certainty in the initial sample and into the main sample
2. SFAs that were paired and randomly selected to be released. Thus:

$$SWF2_{jk}=SWF2a_{jk}*SWF2b_{jk},$$

where $SWF2a_{jk}$ is the inverse of the probability of selection into the initial sample and $SWF2b_{jk}$ adjusts for release from a given pair. These terms are defined as follows for the two groups:

1. For those selected with certainty into the SFA-plus-school sample, $SWF2_{jk}=1$. For these SFAs, $SWF2a_{jk}$= 1 because of selection with certainty and $SWF2b_{jk}$ =1 because these SFAs were not placed into pairs (all were released).
2. For the non-certainty selections, $SWF2a_{jk}$ reflects the chance of being selected from the initial sample, and $SWF2b_{jk}$ is a pair adjustment. *SWF2b* takes on the value of 0, 1, or 2 and adjusts for selection into the sample as part of a pair, release within the pair, and nonresponse within the pair. The values of $SWF2b_{jk}$ for non-certainty SFAs are presented in Table 5.1. The sum of $SWF2b_{jk}$ for a pair will always equal 2. When only one district in a pair was released, $SWF2b_{jk}$ reflects subsampling within the pair; if both were released, the weight reflects no subsampling within the pair. If one of the pair was not completed, $SWF2b_{jk}$ adjusts for nonresponse within the pair.

Table 5.1. Values of $SWF2b_{jk}$ for Non-certainty SFAs

Within a Pair		
Number Released	Recruited	*SWF2b*
1	0	2 for the released district (based on *1/p*; *p=1/2*); 0 for the other
1	1	2 for the released district (based on *1/p; p=1/2);* 0 for the other
2	0	1 for each of the districts
2	1	2 for the completed district (*1/p x 1/rr where p=1/2 and rr=1/2*); 0 for the other
2	2	1 for each of the districts

2. Nonresponse Adjustment

For both samples, the next step was to form cells to adjust for nonresponse (not already accounted for by $SWF2b_{jk}$). For those selected with certainty into the main sample (group 1 above), only one weighting cell was used. But for other SFAs, the nonresponse weighting cell was the reserve zone within the sample (SFA-only or SFA-plus-school).[2] $SWF3\_c_j$ is the nonresponse adjustment factor with cell c:

$$SWF3\_c_j = \frac{\sum_{releasedSFAs \in c} SFAWGT1_{jk}}{\sum_{completedSFAs \in c} SFAWGT1_{jk}}$$

The values of $SWF3\_c_j$ are shown in Table 5.2. These weight factors are the inverse of the weighted response rate for each reserve zone. The SFA weight adjusted for nonresponse is: $SFAWGT\_NR_{jk}=SFAWGT1_{jk}*SWF3\_c_j$.

Table 5.2. SFA Nonresponse Adjustment Factor

Reserve Zone	SFA Nonresponse Adjustment Factor ($SWF3\_c_j$)	
	SFA-Plus-School	SFA-Only
Certainty	1.111111	NA
1	1.875000	1.214286
2	1.066667	1.117647
3	1.285714	1.133333
4	1.214286	1.148718
5	1.250000	1.214286
6	1.307692	1.250000
7	1.214286	1.000000
8	1.133330	1.156846
9	1.214286	1.545455
10	1.133333	1.000000
11	1.000000	1.000000
12	1.076923	1.230769
13	1.250000	1.066667
14	1.750000	1.000000
15	1.250000	1.307692
16	1.214286	1.235294
17	1.214286	1.062500
18	1.000000	1.000000
19	1.250000	1.134454
20	1.357143	1.071429
21	1.307692	1.125000

[2] After the initial samples of PSUs were selected and pairs formed, the file was sorted based on the sort variables used in the sampling and 21 zones were defined, each containing 15 or 16 pairs of PSUs. One pair was randomly selected within each zone to serve as a replacement in case of nonparticipation of both PSUs in a pair.

3. Poststratification

The SFA weights were ratio-adjusted (poststratified) so that the weighted total of the completed sample matched that of our estimated total of SFAs on the SNDA-IV sampling frame. The target total was 15,633. The poststratified SFA weight is:

$SFAWGT\_PS_{jk}=SFAWGT\_NR*RAF_{SFA}$.

Where:

$$RAF_{SFA} \text{ (ratio adjustment factor)} = \frac{15,633}{\sum_{k \in CompletedSFAs} SFAWGT\_NR_{jk}}$$

After this adjustment, the weights for sampled and recruited SFAs from each frame summed to the population total of SFAs.[2] The weights for the SFA-plus-school sample served as the base for the school-level weights. Weighting adjustments for SFA-level survey data then incorporated a factor to combine the samples from the two frames, which is discussed next.

4. SFA Director Survey Weight

The SFA director survey had its own level of nonresponse and required further weighting. The survey weight involved a nonresponse adjustment and a composite weight adjustment to bring the two SFA samples together. The poststratified SFA weight was the starting point. For the SFA-only sample, no nonresponse adjustment was necessary, because these SFAs were not recruited into the study so there was no additional nonresponse within these SFAs. For the SFA-plus-school sample, weighting cells were constructed using the FNS region and SFA size. For SFA size, two categories were defined: large SFAs were those with more than 10 schools and small SFAs were those with 10 or fewer schools. *SWFDir3_c* is the nonresponse adjustment for the SFA director survey. The values of the adjustment are shown in Table 5.3.

[2] The total for the SFA-plus-school sample was slightly higher because it contains the certainty selection.

Table 5.3. SFA Director Survey Nonresponse Adjustment Factor

Region	Large	Nonresponse Adjustment Factor (*SWFDIR3_c*)
West	1	1.028571
West	0	1.142857
Southwest	1	1.045455
Southwest	0	1.045455
Southeast	1	1.000000
Southeast	0	1.083333
Northeast	1	1.125000
Northeast	0	1.058824
Mountain	1	1.000000
Mountain	0	1.000000
Midwest	1	1.000000
Midwest	0	1.156250
Mid-Atlantic	1	1.100000
Mid-Atlantic	0	1.153846
Certainty		2.625000

The SFA director survey weights for interviews from both SFA samples were combined using a composite weighting factor. The composite factor (*compadj*) was set to:

- 1.0 for those selected with certainty for the SFA-plus-school sample
- L for the SFA-only sample (O<L<1)
- (1-L) for those in the SFA-plus-school sample that were not selected with certainty

L was set to minimize the variance of the combined samples.

The SFA director survey weight is

$SFAdirWT_{jk}=SFAWT\_PS\_{jk}*SWFDir3\_c*compadj$ where:

$Deff_{sch}$=the estimated design effect for the SFA-plus-school sample

$Deff_{SFA}$=the estimated design effect for the SFA-only sample

$n(Dir)_{sch}$= the number of cases responding to the SFA director survey for SFA-plus-school sample

$n(Dir)_{SFA}$=the number of cases responding to the SFA director survey for the SFA-only sample

$neff_{sch}=n(Dir)_{sch}/Deff_{sch}$

$neff_{SFA}=n(dir)_{SFA}/Deff_{SFA}$

$L=neff_{sch}/(neff_{sch}+neff_{SFA})$.

B. School-Level Weights

1. Initial Weights

The initial weight for school *i* in stratum *h* and SFA_k is the variable $SFAWGT\_PS_{jk}$ for the SFA to which the school belongs. Since schools were only selected from SFAs in the SFA-plus-school sample, no composite adjustment was necessary. These initial weights were first adjusted for probability of selection of schools within the SFA, using two factors. The first adjustment factor, $W1_{ihk,}$ is the inverse of the probability of the first phase of selection of the school within its SFA:

$$W1_{ihk}=1/Psel_{ihk}$$

where:

$$Psel_{ihk} = n'_{hk}/ N'_{hk}$$

n'_{hk} is the number of school selections made in stratum *h*, SFA_k

N'_{hk} is the number of schools available for with PPS in stratum *h* and SFA_k

The next factor, $W2_{ihk,}$ accounts for subselection into the main and alternate samples. If there was no subselection within SFA (that is, if there was only one selection or all selections were treated as main), then $W2_{ihk}$=1.0. In other cases, the value of W_{2ihk} would be 1 or 2, depending on the numbers released and cooperating within pairs, following the same pattern that was used for SFA pairs as shown in Table 5.1.

The initial school-level weight, before adjustment for nonparticipation (not already accounted for in the pair adjustment) is:

$$SCHWGT1_{ihk} = SFAWGT\_PS_j * W1_{ihk} * W2_{ihk}.$$

The nonparticipation adjustment factor is:

$$W3_c = \frac{\sum_{ihk\in(resp,c)} SCHWGT1_{ihk} + \sum_{ihk\in(nonrespjc)} SCHWGT1_{ihk}}{\sum_{ihk\in(resp,c)} SCHWGT1_{ihk}}$$

where the numerator is the sum of the initial school-level weights across participating and nonparticipating schools, and the denominator is the sum of these weights for the participating schools only.

The school-level weight, adjusted for nonparticipation, is $SCHWGT\_NR_{ihk}=SCHWGT1_{ihk}*W3_c$ for participating schools.

2. Poststratification

Finally, the school weights were ratio-adjusted so that the sum of weights for participating schools was 83,389, the best estimate of the number of schools in SFAs offering the NSLP or the SBP. Thus,

$$RAF_{school} = \frac{83{,}389}{\sum_{ihk \in complete} SCHWGT\_NR_{ihk}}$$

and

$$SCHWGT\_PS_{ihk} = SCHWGT\_NR_{ihk} * RAF_{school} .$$

3. Survey-Specific Weights

There were several school-level surveys. For each survey, separate school nonresponse adjustments were needed. Each survey started with the initial school weight and was then adjusted for nonresponse by weighting cells, and then poststratified to equal 83,389 as was done with the initial school weight.

The following weights were developed for use with the various school-level data files:

- **School-Level Data Collected in the SFA Director Survey.** For the school-level data collected in this survey, weighting cells were created using region, school level (elementary, middle, high), and SFA size (large or not).
- **Menu Survey, Foodservice Manager Survey, and Daily Meal Counts Form.** A single weight was created for these two surveys and the daily meal counts form (a component of the menu survey) because their nonresponse patterns were very similar. A school was considered a respondent if it completed either the menu survey or the foodservice manager survey. For the weighting cells, region, school level (elementary, middle, high) and size (large or not) were used.
- **Principal Survey.** For the weighting cells, region, school level (elementary, middle, high) and size (large or not) were used.
- **Competitive Foods Checklists.** For the three competitive foods checklists (a la carte, vending machine, and other sources of foods and beverages), the nonresponse adjustment required the use of the Chi Square Automated Interaction Detection (CHAID) branching logic procedure to determine the best combinations of variables to form weighting cells. CHAID allowed us to identify the variables that had the greatest influence upon nonresponse and use these to create the weighting cells.

  For the vending machine checklist, the weighting cells were created using the school level (elementary, middle, high). For the other sources of foods and beverages checklist, the weighting cells were created using the concentration of black students (high or low),

and size of the SFA to which the school belonged (large or not).[4] For the a la carte checklist, only two weighting cells were created and these were based on region (Mid-Atlantic region or not). Once again, each of these began with the school-level initial weight which was then adjusted by previously stated weighting cells.

Additional weights were required for the vending machine and a la carte checklists to adjust for nonresponse among schools that indicated that they had vending machines or sold a la carte foods and beverages but did not complete the portion of the checklist that identified the specific foods and beverages available.[5] For the vending machine checklist, we formed weighting adjustment cells based on the number of vending machines reported (1 machine, 2 machines, or more than 2 machines). For the a la carte checklist, we formed cells based on quartiles of reported a la carte revenue.

- **Afterschool Snack Menu Survey.** The afterschool snack menu survey was not provided to all schools because some schools did not provide afterschool snacks. As such, we did no poststratification adjustment because we do not know how many schools nationally provide afterschool snacks through the NSLP. For the nonresponse adjustment, CHAID was used to identify the most appropriate weighting cells. The final weighting cells created were based on the percentage of reduced price or free lunches that a school served (high or not).

Each of these weights (for survey *s*) is identified as $SCHWGT\_PS_{sihk,}$ and was derived in the same manner as $SCHWGITP\_S_{ihk}$, described above.

C. Student-Enrollment-Adjusted Weights

For both SFA- and school-level instruments, we created weights adjusted to the student population (enrollment). We start with the final school-level weight for each survey (*s*) in school *i* in stratum *h* in SFA *k* is $SCHWGT\_PS_{sihk}$, the poststratified school-level weight. The school-level weight is then adjusted for the number of students that attended the school, which gave the student-level weights. Thus the enrollment adjusted weight was, for each survey:

$$ENRWGT_{sihk} = SCHWGT\_PS_{sihk} \left(enrollment_{ihk}\right)$$

where $enrollment_{ihk}$ is the number of students enrolled.

[4] Variables used in developing weighting classes do not have to be limited to those used in defining sampling strata. Use of the concentration of black students was indicated by the CHAID analysis High concentration was defined as greater than 25 percent of students; the percentage was estimated from the CCD.

[5] Comparable weights were not developed for the other sources of foods and beverages checklist because the sample of schools that reported these alternative sources of competitive foods (school stores and snack bars) was too small to produce reliable estimates.

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APPENDIX A

BACKGROUND INFORMATION ON SCHOOL MEALS IN SY 2009- 2010

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Table A.1. Income- Eligibility Guidelines for Free and Reduced- Price Meals: July 2009 to June 2010

Household Size	Federal Poverty Guidelines	Reduced- Price Meals (185% of poverty)	Free Meals (130% of poverty)
	Annual Income ($)	Annual Income ($)	Annual Income ($)
48 Contiguous States, District of Columbia, Guam and Territories			
1	10,830	20,036	14,079
2	14,570	26,955	18,941
3	18,310	33,874	23,803
4	22,050	40,793	28,665
5	25,790	47,712	33,527
6	29,530	54,631	38,389
7	33,270	61,550	43,251
8	37,010	68,469	48,113
For each additional family member, add	3,740	6,919	4,862
Alaska			
1	13,530	25,031	17,589
2	18,210	33,689	23,673
3	22,890	42,347	29,757
4	27,570	51,005	35,841
5	32,250	59,663	41,925
6	36,930	68,321	48,009
7	41,610	76,979	54,093
8	46,290	85,637	60,177
For each additional family member, add	4,680	8,658	6,084
Hawaii			
1	12,460	23,051	16,198
2	16,760	31,006	21,788
3	21,060	38,961	27,378
4	25,360	46,916	32,968
5	29,660	54,871	38,558
6	33,960	62,826	44,148
7	38,260	70,781	49,738
8	42,560	78,736	55,328
For each additional family member, add	4,300	7,955	5,590

Source: "Child Nutrition Programs—Income Eligibility Guidelines." *Federal Register*, vol. 74, no. 58, March 27, 2009, p. 13412.

Available at http://www.fns.usda.gov/cnd/Governance/notices/iegs/IEGs09-10.pdf. Accessed March 1, 2012.

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MENU PLANNING IN THE NATIONAL SCHOOL LUNCH PROGRAM

The National School Lunch Act mandates that school meals "safeguard the health and well-being of the Nation's children". Participating schools must serve lunches that are consistent with the applicable recommendations of the most recent Dietary Guidelines for Americans including: eat a variety of foods; choose a diet with plenty of grain products, vegetables and fruits; choose a diet moderate in sugars and salt; and choose a diet with 30% or less of calories from fat and less than 10% of calories from saturated fat. In addition, lunches must provide, on average over each school week, at least 1/3 of the daily Recommended Dietary Allowances for protein, iron, calcium, and vitamins A and C. To provide local food service professionals with flexibility, there are four menu planning approaches to plan healthful and appealing meals. Schools choose one of the approaches below. The choice of what specific foods are served and how they are prepared and presented are made by local schools.

The Traditional Food-Based Menu Planning Approach

Under the Traditional Food-Based Menu Planning Approach, schools must comply with specific component and quantity requirements by offering five food items from four food components. These components are: meat/meat alternate, vegetables and/or fruits, grains/breads, and milk. Minimum portion sizes are established by ages and grade groups.

(See chart on following page)

TRADITIONAL FOOD-BASED MENU PLANNING APPROACH–MEAL PATTERN FOR LUNCHES					
	MINIMUM QUANTITIES				RECOMMENDED QUANTITIES
FOOD COMPONENTS AND FOOD ITEMS	GROUP I AGES 1-2 PRESCHOOL	GROUP II AGES 3-4 PRESCHOOL	GROUP III, AGES 5-8 GRADES K-3	GROUP IV AGES 9 AND OLDER GRADES 4-12	GROUP V AGES 12 AND OLDER GRADES 7-12
Milk (as a beverage)	6 fluid ounces	6 fluid ounces	8 fluid ounces	8 fluid ounces	8 fluid ounces
Meat or Meat Alternate (quantity of the edible portion as served):					
Lean meat, poultry, or fish	1 ounce	1½ ounces	1½ ounces	2 ounces	3 ounces
Alternate Protein Products[1]	1 ounce	1½ ounces	1½ ounces	2 ounces	3 ounces
Cheese	1 ounce	1½ ounces	1½ ounces	2 ounces	3 ounces
Large egg	½	¾	¾	1	1½
Cooked dry beans or peas	¼ cup	3/8 cup	3/8 cup	½ cup	¾ cup
Peanut butter or other nut or seed butters	2 tablespoons	3 tablespoons	3 tablespoons	4 tablespoons	6 tablespoons
Yogurt, plain or flavored, unsweetened or sweetened	4 ounces or ½ cup	6 ounces or ¾ cup	6 ounces or ¾ cup	8 ounces or 1 cup	12 ounces or 1½ cups
The following may be used to meet no more than 50% of the requirement and must be used in combination with any of the above: Peanuts, soynuts, tree nuts, or seeds, as listed in program guidance, or an equivalent quantity of any combination of the above meat/meat alternate (1 ounce of nuts/seeds=1 ounce of cooked lean meat, poultry, or fish)	½ ounce =50%	¾ ounce =50%	¾ ounce =50%	1 ounce =50%	1½ ounces =50%
Vegetable or Fruit: 2 or more servings of vegetables, fruits or both	½ cup	½ cup	½ cup	¾ cup	¾ cup
Grains/Breads: (servings per week): Must be enriched or whole grain. A serving is a slice of bread or an equivalent serving of biscuits, rolls, etc., or ½ cup of cooked rice, macaroni, noodles, other pasta products or cereal grains	5 servings per week[2] -- minimum of ½ serving per day	8 servings per week[2] -- minimum of 1 serving per day	8 servings per week[2] -- minimum of 1 serving per day	8 servings per week[2] -- minimum of 1 serving per day	10 servings per week[2] -- minimum of 1 serving per day

[1] Must meet the requirements in appendix A of 7 CFR 210.
[2] For the purposes of this table, a week equals five days.

The Traditional Food-Based Menu Planning Approach is designed to meet nutritional standards set forth in program regulations.

The Enhanced Food-Based Menu Planning Approach

The Enhanced Food-Based Menu Planning Approach is a variation of the Traditional Menu Planning Approach. It is designed to increase calories from low-fat food sources in order to meet the Dietary Guidelines. The five food components are retained, but the component quantities for the weekly servings of vegetables and fruits and grains/breads are increased.

ENHANCED FOOD-BASED MENU PLANNING APPROACH-MEAL PATTERN FOR LUNCHES					
	MINIMUM REQUIREMENTS				OPTION FOR
FOOD COMPONENTS AND FOOD ITEMS	AGES 1-2	PRESCHOOL	GRADES K-6	GRADES 7-12	GRADES K-3
Milk (as a beverage)	6 fluid ounces	6 fluid ounces	8 fluid ounces	8 fluid ounces	8 fluid ounces
Meat or Meat Alternate (quantity of the edible portion as served):					
Lean meat, poultry, or fish	1 ounce	1½ ounces	2 ounces	2 ounces	1½ ounces
Alternate protein products[1]	1 ounce	1½ ounces	2 ounces	2 ounces	1½ ounces
Cheese	1 ounce	1½ ounces	2 ounces	2 ounces	1½ ounces
Large egg	½	¾	1	1	¾
Cooked dry beans or peas	¼ cup	3/8 cup	½ cup	½ cup	3/8 cup
Peanut butter or other nut or seed butters	2 tablespoons	3 tablespoons	4 tablespoons	4 tablespoons	3 tablespoons
Yogurt, plain or flavored, unsweetened or sweetened	4 ounces or ½ cup	6 ounces or ¾ cup	8 ounces or 1 cup	8 ounces or 1 cup	6 ounces or ¾ cup
The following may be used to meet no more than 50% of the requirement and must be used in combination with any of the above: Peanuts, soynuts, tree nuts, or seeds, as listed in program guidance, or an equivalent quantity of any combination of the above meat/meat alternate (1 ounce of nuts/seeds equals 1 ounce of cooked lean meat, poultry or fish).	½ ounce =50%	¾ ounce =50%	1 ounce =50%	1 ounce =50%	¾ ounce =50%
Vegetable or Fruit: 2 or more servings of vegetables, fruits or both	½ cup	½ cup	¾ cup plus an extra ½ cup over a week[2]	1 cup	¾ cup
Grains/Breads(servings per week): Must be enriched or whole grain. A serving is a slice of bread or an equivalent serving of biscuits, rolls, etc., or ½ cup of cooked rice, macaroni, noodles, other pasta products or cereal grains	5 servings per week[2] – minimum of ½ serving per day	8 servings per week[2] – minimum of 1 serving per day	12 servings per week[2] – minimum of 1 serving per day[3]	15 servings per week[2]– minimum of 1 serving per day[3]	10 servings per week[2] – minimum of 1 serving per day[3]

[1] Must meet the requirements in appendix A of 7 CFR 210.
[2] For the purposes of this table, a week equals five days.
[3] Up to one grains/breads serving per day may be a dessert.

The Enhanced Food Based Menu Planning Approach is designed to meet the nutritional standards set forth in program regulations.

The Nutrient Standard Menu Planning Approach

Nutrient Standard Menu Planning (sometimes called "NuMenus") is a computer based menu planning system that uses approved computer software to analyze the specific nutrient content of menu items automatically while menus are being planned. It is designed to assist menu planners in choosing food items that create nutritious meals and meet the nutrient standards.

The Assisted Nutrient Standard Menu Planning Approach

Assisted Nutrient Standard Menu Planning (sometimes called "Assisted NuMenus") is a variation of Nutrient Standard Menu Planning. It is for schools that lack the technical resources to conduct nutrient analysis themselves. Instead, schools have an outside source, such as another school district, State agency or a consultant, plan and analyze a menu based on local needs and preferences. The outside source also provides schools with recipes and product specifications to support the menus. The menus and analyses are periodically updated to reflect any changes in the menu or student selection patterns.

Here are the required minimums for nutrients and calories for these nutrient standard menu planning approaches:

MINIMUM NUTRIENT AND CALORIE LEVELS FOR SCHOOL LUNCHES
NUTRIENT STANDARD MENU PLANNING APPROACHES (SCHOOL WEEK AVERAGES)

	MINIMUM REQUIREMENTS			OPTIONAL
NUTRIENTS AND ENERGY ALLOWANCES	Preschool	Grades K-6	Grades 7-12	Grades K-3
Energy allowances (calories)	517	664	825	633
Total fat (as a percentage of actual total food energy)	[1]	[1, 2]	[2]	[1, 2]
Saturated fat (as a percentage of actual total food energy)	[1]	[1, 3]	[3]	[1, 3]
RDA for protein (g)	7	10	16	9
RDA for calcium (mg)	267	286	400	267
RDA for iron (mg)	3.3	3.5	4.5	3.3
RDA for Vitamin A (RE)	150	224	300	200
RDA for Vitamin C (mg)	14	15	18	15

[1] The Dietary Guidelines recommend that after 2 years of age "...children should gradually adopt a diet that, by about 5 years of age, contains no more than 30 percent of calories from fat."
[2] Not to exceed 30 percent over a school week
[3] Less than 10 percent over a school week

Alternate Menu Planning Approach

This menu planning approach allows states and school districts to develop their own innovative approaches to menu planning, subject to the guidelines established in our regulations. These guidelines protect the nutritional and fiscal integrity of the program.

September 1, 2000

MENU PLANNING IN THE SCHOOL BREAKFAST PROGRAM

School meals are intended to "safeguard the health and well-being of the Nation's children." Participating schools must serve breakfasts that are consistent with the applicable recommendations of the most recent Dietary Guidelines for Americans including: eat a variety of foods; choose a diet with plenty of grain products, vegetables and fruits; choose a diet moderate in sugars and salt; and choose a diet with 30% or less of calories from fat and less than 10% of calories from saturated fat. In addition, breakfasts must provide, on average over each school week, at least 1/4th of the daily Recommended Dietary Allowances for protein, iron, calcium, and vitamins A and C. To provide local food service professionals with flexibility, there are five menu planning approaches to plan healthful and appealing meals. Schools choose one of the approaches below. The choice of what specific foods are served and how they are prepared and presented are made by local schools.

The Traditional Food-Based Menu Planning Approach

Under the Traditional Food-Based Menu Planning Approach, schools must comply with specific component and quantity requirements by offering four food items from the following food components: vegetables and/or fruits; milk; and two servings of meat/meat alternate, two servings of grains/breads OR one serving of each of these components. Minimum portion sizes are established by ages and grade groups.

(See chart on following page)

TRADITIONAL FOOD-BASED MENU PLANNING APPROACH-MEAL PATTERN FOR BREAKFASTS			
FOOD COMPONENTS AND FOOD ITEMS	AGES 1-2	AGES 3,4 AND 5	GRADES K-12
MILK (fluid) (as a beverage, on cereal or both)	4 fluid ounces	6 fluid ounces	8 fluid ounces
JUICE/FRUIT/VEGETABLE: Fruit and/or vegetable; or full-strength fruit juice or vegetable juice	¼ cup	½ cup	½ cup
SELECT ONE SERVING FROM EACH OF THE FOLLOWING COMPONENTS, TWO FROM ONE COMPONENT, OR AN EQUIVALENT COMBINATION: GRAINS/BREADS :			
Whole-grain or enriched bread	½ slice	½ slice	1 slice
Whole-grain or enriched biscuit, roll, muffin, etc.	½ serving	½ serving	1 serving
Whole-grain, enriched or fortified cereal	¼ cup or 1/3 ounce	1/3 cup or ½ ounce	¾ cup or 1 ounce
MEAT OR MEAT ALTERNATES:			
Meat/poultry or fish	½ ounce	½ ounce	1 ounce
Alternate protein products[1]	½ ounce	½ ounce	1 ounce
Cheese	½ ounce	½ ounce	1 ounce
Large egg	½	½	½
Peanut butter or other nut or seed butters	1 tablespoon	1 tablespoon	2 tablespoons
Cooked dry beans and peas	2 tablespoons	2 tablespoons	4 tablespoons
Nuts and/or seeds (as listed in program guidance)[2]	½ ounce	½ ounce	1 ounce
Yogurt, plain or flavored, unsweetened or sweetened	2 ounces or ¼ cup	2 ounces or ¼ cup	4 ounces or ½ cup

[1] Must meet the requirements in appendix A of 7 CFR 210.
[2] No more than 1 ounce of nuts and/or seeds may be served in any one breakfast.

The Traditional Food-Based Menu Planning Approach is designed to meet nutritional standards set forth in program regulations.

The Enhanced Food-Based Menu Planning Approach

The Enhanced Food-Based Menu Planning Approach uses the same meal pattern and age groups as the Traditional Food-Based Menu Planning Approach. The only difference is the addition of an optional age/grade group was added for grades 7-12 to better meet the needs of children in that crucial growth period by adding low fat calories from additional servings of grains/breads.

ENHANCED FOOD-BASED MENU PLANNING APPROACH-MEAL PATTERN FOR BREAKFASTS				
FOOD COMPONENTS AND FOOD ITEMS	REQUIRED FOR			OPTION FOR
	AGES 1-2	PRESCHOOL	GRADES K-12	GRADES 7-12
Milk (fluid) (as a beverage, on cereal or both)	4 fluid ounces	6 fluid ounces	8 fluid ounces	8 fluid ounces
JUICE/FRUIT/VEGETABLE: Fruit and/or vegetable; or full-strength fruit juice or vegetable juice	¼ cup	½ cup	½ cup	½ cup
SELECT ONE SERVING FROM EACH OF THE FOLLOWING COMPONENTS, TWO FROM ONE COMPONENT OR AN EQUIVALENT COMBINATION:				
GRAINS/BREADS:				
Whole-grain or enriched bread	½ slice	½ slice	1 slice	1 slice
Whole-grain or enriched biscuit, roll, muffin, etc.	½ serving	½ serving	1 serving	1 serving
Whole-grain, enriched or fortified cereal	¼ cup or 1/3 ounce	1/3 cup or ½ ounce	¾ cup or 1 ounce	¾ cup or 1 ounce plus an additional serving of one of the Grains/Breads above.
MEAT OR MEAT ALTERNATES:				
Meat/poultry or fish	½ ounce	½ ounce	1 ounce	1 ounce
Alternate protein products[1]	½ ounce	½ ounce	1 ounce	1 ounce
Cheese	½ ounce	½ ounce	1 ounce	1 ounce
Large egg	½	½	½	½
Peanut butter or other nut or seed butters	1 tablespoon	1 tablespoon	2 tablespoons	2 tablespoons
Cooked dry beans and peas	2 tablespoons	2 tablespoons	4 tablespoons	4 tablespoons
Nuts and/or seeds (as listed in program guidance)[2]	½ ounce	½ ounce	1 ounce	1 ounce
Yogurt, plain or flavored, unsweetened or sweetened	2 ounces or ¼ cup	2 ounces or ¼ cup	4 ounces or ½ cup	4 ounces or ½ cup

[1] Must meet the requirements in appendix A of 7 CFR 210.
[2] No more than 1 ounce of nuts and/or seeds may be served in any one breakfast.

The Enhanced Food Based Menu Planning Approach is designed to meet the nutritional standards set forth in program regulations.

The Nutrient Standard Menu Planning Approach

Nutrient Standard Menu Planning (sometimes called "NuMenus") is a computer based menu planning system that uses approved computer software to analyze the specific nutrient content of menu items automatically while menus are being planned. It is designed to assist menu planners in choosing food items that create nutritious meals and meet the nutrient standards.

The Assisted Nutrient Standard Menu Planning

Assisted Nutrient Standard Menu Planning (sometimes called "Assisted NuMenus") is a variation of Nutrient Standard Menu Planning. It is for schools that lack the technical resources to conduct nutrient analysis themselves. Instead, schools have an outside source, such as another school district, State agency or a consultant, plan and analyze a menu based on local needs and preferences. The outside source also provides schools with recipes and product specifications to support the menus. The menus and analyses are periodically updated to reflect any changes in the menu or student selection patterns.

Here are the required minimums for nutrients and calories for these nutrient standard menu planning approaches:

MINIMUM NUTRIENT AND CALORIE LEVELS FOR SCHOOL BREAKFASTS NUTRIENT STANDARD MENU PLANNING APPROACHES (SCHOOL WEEK AVERAGES)			
	MINIMUM REQUIREMENTS		OPTIONAL
NUTRIENTS AND ENERGY ALLOWANCES	PRESCHOOL	GRADES K-12	GRADES 7-12
Energy allowances (calories)	388	554	618
Total fat (as a percentage of actual total food energy)	[1]	[1,2]	[2]
Saturated fat (as a percentage of actual total food energy)	[1]	[1,3]	[3]
RDA for protein (g)	5	10	12
RDA for calcium (mg)	200	257	300
RDA for iron (mg)	2.5	3	3.4
RDA for Vitamin A (RE)	113	197	225
RDA for Vitamin C (mg)	11	13	14

[1] The Dietary Guidelines recommend that after 2 years of age "...children should gradually adopt a diet that, by about 5 years of age, contains no more than 30 percent of calories from fat."

[2] Not to exceed 30 percent over a school week

[3] Less than 10 percent over a school week

Any Reasonable Menu Planning Approach

This menu planning approach allows states and school districts to develop their own innovative approaches to menu planning, subject to the guidelines established in our regulations. These guidelines protect the nutritional and fiscal integrity of the program.

The Facts

Let's Move! is a comprehensive initiative, launched by the First Lady, dedicated to solving the problem of childhood obesity in a generation so that kids born today will grow up healthier and able to pursue their dreams. This is an ambitious goal. But it can be done.

Combining comprehensive strategies with common sense, *Let's Move!* is about putting children on the path to a healthy future starting with their earliest months and years and continuing throughout their lives. Giving parents helpful information and fostering environments that support healthy choices. Providing healthier foods in our schools. Ensuring that every community has access to healthy, affordable food. And, helping kids become more physically active.

The Issue

Over the past three decades, childhood obesity rates in America have tripled. Today, almost one in every three children in our nation is overweight or obese. The numbers are even higher in African American and Hispanic communities where nearly 40% of the children are overweight or obese. Rates are estimated to be even higher in American Indian/Alaska Native communities. If we don't solve this problem, one third of all children born in 2000 or later will suffer from diabetes at some point in their lives. Many others will face chronic obesity-related health problems like heart disease, high blood pressure, cancer and asthma.

"In the end, as First Lady, this isn't just a policy issue for me. This is a passion. This is my mission. I am determined to work with folks across this country to change the way a generation of kids thinks about food and physical activity."

—First Lady Michelle Obama

Mrs. Obama began a national conversation about the health of America's children when she broke ground on the White House Kitchen Garden with students from a local elementary school in Washington, DC. Through the garden, she began a discussion with kids about nutrition and the role food plays in living a healthy life. That discussion grew into the Let's Move! initiative, which was launched by the First Lady in February, 2010.

"All Americans, especially young people, should be leading active, healthy lifestyles. We want everyone — regardless of age, background or ability — to get moving, eat right and stay fit for life."

—Drew Brees, Quarterback,
New Orleans Saints, Co-Chair,
President's Council on Fitness,
Sports & Nutrition

Find out more
www.letsmove.gov

Learn more about how your family can make healthier choices and get moving. Find tips on healthy eating. Discover fun activities you and your family can do together. Read the latest *Let's Move!* news. Sign up for our newsletter, and see what else you can do to fight childhood obesity in your community, or schools.

Additional resources

www.fitness.gov
www.presidentschallenge.org

LET'S MOVE!

The Solution

Encourage kids to eat healthier and move more. When children combine physical activity with healthy eating in their daily routine, they help prevent a range of chronic diseases, including heart disease, cancer and stroke—the three leading causes of death. Along with decreasing obesity risk, physical activity helps to control weight, build lean muscle, reduce fat and promote strong bone, muscle and joint development. Physical activity has also been shown to improve academic performance including better grades, test scores, classroom behavior, attention, and concentration. And, of course, healthy eating gives kids the proper nutrition they need to stay energized, active, and maintain a healthy weight.

Let's Get Moving

Get kids moving and make healthier choices for your children

- Children need 60 minutes of active and vigorous play each day
- Serve fruit or veggies with every meal
- Substitute water or low-fat milk for sweetened beverages
- Pick a vegetable they like and find different, tasty ways to prepare it
- Substitute healthier ingredients such as whole wheat pasta, and lean meats in their favorite recipes
- Eat meals as a family

Earn a Presidential Active Lifestyle Award (PALA)

- When you and your kids commit to an activity five days a week for six weeks—like walking to school together, riding bicycles or taking the stairs instead of the elevator—you can each get an award from President Obama! To join visit: **www.presidentschallenge.org**

Get everyone in your family screened for obesity

- Make sure every family member gets their Body Mass Index (BMI) checked when they go in for a check-up

Support a community garden

- Find a place to grow a garden with your kids—at school, church or in an empty lot—so they can learn to eat what they grow

Help build a community playground

- Work with your community and other organizations to build a playground so that kids have a place to get 60 minutes of physical activity a day

APPENDIX B

SUPPLEMENTAL TABLES FOR CHAPTERS 1, 2 AND 3

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TABLES

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Table B.1. Characteristics of Public National School Lunch Program Schools

Characteristic	Percentage of Schools		
	Elementary Schools	Middle Schools	High Schools
School Size			
Small (fewer than 500 students)	61.6	36.4	39.0
Medium (500 to 999 students)	38.0	45.9	23.7
Large (1,000 or more students)	0.4	17.7	37.3
Urbanicity			
Urban	29.1	28.0	22.5
Suburban	46.4	47.8	44.8
Rural	24.5	24.3	32.7
District Child Poverty Rate			
Low (less than 30 percent)	67.7	66.6	64.2
Higher (30 percent or more)	32.3	33.4	35.8
FNS Region			
Northeast	11.9	8.1	12.6
Mid–Atlantic	9.0	8.4	10.5
Southeast	14.0	20.2	14.5
Midwest	18.3	23.9	20.4
Southwest	15.9	14.0	14.2
Mountain Plains	11.9	10.6	14.9
Western	19.0	14.8	13.0
Number of Schools	**318**	**287**	**279**

Source: School Nutrition Dietary Assessment–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

FNS = Food and Nutrition Service.

Table B.2. Grade Spans in National School Lunch Program Schools

School Type/Grade Span	Number of Sample Schools (Unweighted)	Number of Schools (Weighted)	Percentage of Schools (Weighted)
Elementary Schools	**318**	**51,475**	**100.0**
Pre-K – 1	1	133	0.3
Pre-K – 2	5	745	1.5
Pre-K – 3	3	617	1.2
Pre-K – 4	6	822	1.6
Pre-K – 5	42	8,056	15.7
Pre-K – 6	18	2,630	5.1
Pre-K – 7	1	44	0.1
Pre-K – 8	8	1,424	2.8
Pre-K – 11	1	494	1.0
Pre-K - 12	3	1,037	2.0
K – 1	1	195	0.4
K – 2	6	804	1.6
K – 3	8	1,547	3.0
K – 4	19	2,903	5.6
K – 5	100	15,436	30.0
K – 6	36	5,858	11.4
K – 7	3	307	0.6
K – 8	20	3,074	6.9
K – 12	6	1,373	2.7
1 – 2	2	202	0.4
1 – 3	1	155	0.3
1 – 4	2	398	0,8
1 – 5	3	273	0.5
1 – 6	1	240	0.5
1 – 8	1	48	0.1
2 – 3	3	428	0.8
2 – 4	1	239	0.5
3 – 5	6	653	1.3
3 – 6	1	95	0.2
3 – 8	1	19	<0.1
4 – 5	3	266	0.5
4 – 6	4	700	1.4
5 – 6	1	63	0.1
5 – 7	1	195	0.4
Middle Schools	**287**	**14,830**	**100.0**
4 – 8	6	323	2.2
5 – 8	24	1,765	11.9
5 – 12	1	15	0.1
6 only	1	49	0.3
6 – 8	194	9,996	67.4
7 – 8	48	2,190	14.8
7 – 9	9	328	2.2
8 only	3	75	0.5
8 – 9	1	87	0.6
High Schools	**279**	**17,084**	**100.0**
6 – 12	14	834	4.9
7 – 12	14	1,652	9.7
8 – 12	1	130	0.8
9 – 12	237	13,934	81.6
10 – 12	13	534	3.1
Number of Schools	**884**	**83,389**	**100.0**

Source: School Nutrition Dietary Assessment-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Table B.3. Regression Model of Decision to Purchase a Paid School Lunch (Average Student Participation Rate)

	Elementary Schools	Middle Schools	High Schools	All Schools
ln(Cost of Paid Lunch)[a]	-0.16**	-0.22*	-0.05	-0.16**
	(0.06)	(0.08)	(0.09)	(0.06)
Alternative Food Sources				
A La Carte	0.00	-0.17	0.02	0.01
	(0.04)	(0.09)	(0.09)	(0.04)
Vending Machine	-0.01	-0.00	-0.01	-0.01
	(0.04)	(0.04)	(0.04)	(0.03)
Other Source	0.00	0.04	-0.06	-0.01
	(0.04)	(0.04)	(0.04)	(0.03)
Healthy Food Choices				
French Fries are not offered	-0.01	-0.04	-0.04	-0.02
	(0.02)	(0.04)	(0.04)	(0.02)
Only skim or 1% milk is offered	0.00	0.07*	0.01	0.01
	(0.03)	(0.03)	(0.03)	(0.02)
Cold cereal is offered every day	-0.01	0.02	0.02	0.00
	(0.02)	(0.03)	(0.03)	(0.02)
School Enrollment				
Small (less than 500) (reference group)	n.a.	n.a.	n.a.	n.a.
Medium (between 500 and 1,000)	0.01	-0.10*	-0.08	-0.01
	(0.02)	(0.04)	(0.05)	(0.02)
Large (more than 1,000)	-0.08*	-0.01	-0.13**	-0.07*
	(0.04)	(0.05)	(0.05)	(0.03)
Other School Characteristics				
High Poverty	0.02	-0.04	-0.01	0.00
	(0.03)	(0.04)	(0.05)	(0.03)
Meals Prepared Off Site	-0.05	0.04	-0.12*	-0.05*
	(0.03)	(0.05)	(0.05)	(0.02)
Elementary School (reference group)	n.a.	n.a.	n.a.	n.a.
Middle School	n.a.	n.a.	n.a.	-0.04
				(0.03)
High School	n.a.	n.a.	n.a.	-0.19**
				(0.03)
Region				
Mid-Atlantic (reference group)	n.a.	n.a.	n.a.	n.a.
Northeast	-0.07	-0.10	-0.14*	-0.09**
	(0.04)	(0.06)	(0.06)	(0.04)
Southeast	-0.01	-0.06	-0.14**	-0.05
	(0.05)	(0.06)	(0.05)	(0.03)
Midwest	-0.01	-0.06	-0.13*	-0.03
	(0.04)	(0.07)	(0.05)	(0.04)
Mountain Plain	0.03	-0.03	-0.10	0.00
	(0.05)	(0.07)	(0.06)	(0.04)
Southwest	-0.03	-0.04	-0.35**	-0.08*
	(0.05)	(0.06)	(0.05)	(0.04)
West	-0.13**	-0.30**	-0.35**	-0.19**
	(0.05)	(0.06)	(0.05)	(0.04)

Table B.3. *(continued)*

	Elementary Schools	Middle Schools	High Schools	All Schools
Intercept	0.69** (0.07)	0.90** (0.11)	0.61** (0.10)	0.71** (0.06)
Number of Schools	**255**	**241**	**230**	**726**

Source: School Nutrition Dietary Assessment-IV, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Participation is measured as the ratio of the average daily number of paid meals served to the number of students not eligible for free or reduced–price meal benefits (and therefor "eligible" for paid meals). Standard errors are shown in parentheses.

Control variables included alternative food sources (a la carte, vending machines, school store or snack bar), healthy meal options (french fries not served, only 1% or skim milk offered, cereal served every day), school enrollment, offsite meal preparation, poverty status, and region.

The analysis included only schools that served paid lunches. Paid meal participation rates could not be calculated for schools that lacked information on the number of students approved for free and reduced–price meal benefits or for schools that had conflicting data on enrollment and student eligibility for meal benefits. Eighty–eight schools were excluded from the analysis because of missing/conflicting data.

[a] To convert coefficients to elasticities, multiply by 0.0953.

* $p < 0.05$; ** $p < 0.01$.

Table B.4. Regression Model of Decision to Purchase a Paid School Breakfast (Average Student Participation Rate)

	Elementary Schools	Middle Schools	High Schools	All Schools
ln(Cost of Paid Breakfast)[a]	-0.06	-0.06**	-0.03	-0.05*
	(0.03)	(0.02)	(0.02)	(0.02)
Alternative Food Sources				
A La Carte	0.02	0.04**	0.03	0.02
	(0.03)	(0.01)	(0.02)	(0.02)
Vending Machine	0.02	-0.03*	-0.01	0.00
	(0.03)	(0.01)	(0.01)	(0.02)
Other Sources	-0.01	0.01	-0.02	-0.01
	(0.02)	(0.01)	(0.01)	(0.01)
Healthy Food Choices				
French Fries are not Offered	0.02	-0.01	0.01	0.02
	(0.02)	(0.01)	(0.01)	(0.02)
Only Skim or 1% Milk is Offered	0.01	0.01	0.01	0.01
	(0.02)	(0.01)	(0.01)	(0.01)
Cold cereal is Offered Every Day	-0.01	0.00	0.00	-0.01
	(0.02)	(0.01)	(0.01)	(0.01)
School Enrollment				
Small (less than 500) (reference group)	n.a.	n.a.	n.a.	n.a.
Medium (between 500 and 1,000)	0.00	-0.04**	-0.04**	-0.02
	(0.02)	(0.01)	(0.02)	(0.01)
Large (more than 1,000)	-0.12**	-0.04**	-0.06**	-0.03**
	(0.04)	(0.01)	(0.02)	(0.01)
Other School Characteristics				
High Poverty	0.09**	0.01	0.00	0.06**
	(0.03)	(0.01)	(0.01)	(0.02)
Meals Prepared Off Site	-0.06**	0.00	-0.02	-0.05**
	(0.02)	(0.01)	(0.02)	(0.01)
Elementary School (Reference Group)	n.a.	n.a.	n.a.	n.a.
Middle School	n.a.	n.a.	n.a.	-0.06**
				(0.01)
High School	n.a.	n.a.	n.a.	-0.07**
				(0.01)
Region				
Mid-Atlantic (Reference Group)	n.a.	n.a.	n.a.	n.a.
Northeast	-0.12**	-0.02	-0.04	-0.09**
	(0.04)	(0.01)	(0.02)	(0.03)
Southeast	-0.12**	0.00	0.00	-0.07*
	(0.04)	(0.01)	(0.02)	(0.03)
Midwest	-0.12**	-0.03*	-0.05**	-0.08**
	(0.04)	(0.01)	(0.01)	(0.02)
Mountain Plain	-0.05	-0.02	-0.01	-0.03
	(0.05)	(0.02)	(0.02)	(0.03)
Southwest	-0.11*	0.00	-0.02	-0.07*
	(0.04)	(0.02)	(0.02)	(0.03)
West	-0.11**	-0.02	-0.04	-0.07**
	(0.04)	(0.01)	(0.02)	(0.03)

Table B.4. *(continued)*

	Elementary Schools	Middle Schools	High Schools	All Schools
Intercept	0.20** (0.04)	0.08** (0.02)	0.07* (0.03)	0.17** (0.03)
Number of Schools	**209**	**209**	**202**	**620**

Source: School Nutrition Dietary Assessment-IV, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Participation is measured as the ratio of the average daily number of paid meals served to the number of students not eligible for free or reduced–price meal benefits (and therefor "eligible" for paid meals). Standard errors are shown in parentheses.

Control variables included alternative food sources (a la carte, vending machines, school store or snack bar), healthy meal options (french fries not served, only 1% or skim milk offered, cereal served every day), school enrollment, offsite meal preparation, poverty status, and region.

The analysis included only schools that served paid breakfasts. Paid meal participation rates could not be calculated for schools that lacked information on the number of students approved for free and reduced–price meal benefits or for schools that had conflicting data on enrollment and student eligibility for meal benefits. Fifty–two schools were excluded from the analysis because of missing/conflicting data.

[a] To convert coefficients to elasticities, multiply by 0.0953.

* $p < 0.05$; ** $p < 0.01$.

Table B.5. Menu-Planning Systems Used in SY 2009–2010 by School Type

	Percentage of Schools			
Menu Planning Method	Elementary Schools	Middle Schools	High Schools	All Schools
Traditional Food–Based	52.7	52.0	55.9	53.3
Enhanced Food–Based	19.0	20.0	20.3	19.5
Nutrient–Based	28.3	28.0	23.7	27.3
Number of Schools	**315**	**284**	**277**	**876**

Source: School Nutrition Dietary Assessment–IV, SFA Director Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research, Inc. are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Nutrient–based menu planning includes both nutrient standard menu planning (NSMP) and assisted nutrient standard menu planning (ANSMP).

Six schools (about 1 percent of the weighted sample) reportedly used an "other reasonable approach" to plan menus. Based on the descriptions provided and information available from school district websites, we categorized these approaches into one of the main menu–planning systems.

SY = School year.

Table B.6. Prices Charged for Components of Reimbursable Lunches when Purchased A la Carte

Menu Item	Price Charged ($)															
	Elementary Schools				Middle Schools				High Schools				All Schools			
	Mean	Mode	Minimum	Maximum	Mean	Mode	Minimum	Maximum	Mean	Mode	Minimum	Maximum	Mean	Mode	Minimum	Maximum
Entrée salad	1.79	2.00	0.75	4.00	1.91	2.00	0.50	4.00	2.00	2.00	0.50	4.00	1.88	2.00	0.50	4.00
Sandwich, hot dog, hamburger, cheeseburger	1.52	1.50	0.75	2.75	1.64	1.50	0.50	3.50	1.63	1.50	0.50	3.00	1.58	1.50	0.50	3.50
Pizza	1.51	1.50	0.75	2.75	1.64	1.50	0.50	3.00	1.64	1.50	0.50	3.00	1.57	1.50	0.50	3.00
Chicken nuggets, strips, patties	1.51	1.50	0.25	2.75	1.61	2.00	0.50	2.85	1.62	1.50	0.50	3.00	1.56	1.50	0.25	3.00
Burritos, other Mexican entrées	1.46	1.50	0.50	2.75	1.60	1.50	0.50	3.00	1.59	1.50	0.50	3.00	1.53	1.50	0.50	3.00
Nachos	1.49	1.50	0.60	2.60	1.55	1.50	0.50	2.85	1.53	1.50	0.50	2.75	1.52	1.50	0.50	2.85
French fries	0.68	0.50	0.25	1.60	0.83	0.50	0.25	2.00	0.88	0.75	0.25	2.25	0.78	0.50	0.25	2.25
Side salad	0.75	0.50	0.25	2.60	0.77	0.50	0.25	2.60	0.81	0.50	0.25	2.60	0.77	0.50	0.25	2.60
Desserts	0.58	0.50	0.25	1.75	0.56	0.50	0.25	1.25	0.60	0.50	0.25	1.50	0.58	0.50	0.25	1.75
Vegetable other than French fries	0.57	0.50	0.25	1.20	0.57	0.50	0.20	1.20	0.60	0.50	0.25	1.25	0.58	0.50	0.20	1.25
Fruit	0.52	0.50	0.25	1.00	0.55	0.50	0.25	1.00	0.52	0.50	0.25	1.00	0.53	0.50	0.25	1.00
100% juice	0.48	0.50	0.25	1.50	0.54	0.50	0.10	1.75	0.60	0.50	0.25	1.50	0.52	0.50	0.10	1.75
Milk	0.43	0.50	0.25	0.75	0.44	0.50	0.25	1.00	0.43	0.50	0.25	0.83	0.43	0.50	0.25	1.00
Roll, bread, other grain item	0.40	0.50	0.10	1.00	0.41	0.50	0.10	1.00	0.42	0.50	0.10	2.00	0.41	0.50	0.10	2.00
Number of Schools	**258**				**269**				**251**				**778**			

Source: School Nutrition Dietary Assessment–IV, Foodservice Manager Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Table includes only schools that had a la carte sales at lunch and allowed students to purchase components of reimbursable lunches on an a la carte basis.

APPENDIX C

SUPPLEMENTAL TABLES FOR CHAPTER 4

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TABLES

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Table C.1. Food Grouping System

Major Food Group	Minor Food Group	Examples
Milk	Whole, unflavored	Whole milk with no added flavoring
	Whole, flavored	Whole chocolate or strawberry milk
	2%, unflavored	2% milk with no added flavoring
	2%, flavored	2% chocolate or strawberry milk
	1%, unflavored	1% milk with no added flavoring
	1%, flavored	1% chocolate or strawberry milk
	Skim, unflavored	Skim milk with no added flavoring
	Skim, flavored	Nonfat chocolate or strawberry milk
	Other milk beverages	Milkshakes, cocoa made with milk, powdered breakfast drink made with milk, soy milk, milk based smoothies
Fruits	Fresh	Any fresh fruit including apples, oranges, bananas, strawberries, and self–serve fruit bars
	Canned, sweetened	Any canned fruit in light, medium or heavy syrup, or juice–packed, including peaches, pears, fruit cocktail
	Canned, unsweetened	Any canned fruit water–packed or drained, including peaches, pears, fruit cocktail
	Frozen	Any frozen fruit, including strawberries, blueberries, peaches, cherries
	Dried	Any dried fruit, including raisins, cranberries, apples, pineapple and apricots
	Citrus fruit juice, 100%	Orange juice, cranberry juice, juice blend with citrus, including calcium fortified juice
	Non–citrus fruit juice, 100%	Apple juice, grape juice, juice blends, including vitamin C fortified juice
Vegetables	Cooked, starchy	Potatoes, french fries, tater tots, corn, green peas, lima beans
	Cooked, dark green	Cooked broccoli, spinach, collards, kale
	Cooked, orange	Cooked carrots, sweet potatoes, winter squash
	Cooked, legumes	Pinto beans, kidney beans, black beans, bean soups
	Cooked, other	String beans, cauliflower, asparagus, tomatoes, onions, okra, summer squash, peppers, mixed vegetables, vegetable soups
	Raw, dark green	Raw spinach, romaine, broccoli
	Raw, orange	Raw carrots
	Raw, starchy	Raw jicama
	Raw, other	Raw green or red peppers, cabbage, cauliflower, summer squash, celery, tomatoes, cucumbers, side salads, and side salad bars
Combination Entrees	Entree food bars	Self–serve salad bars, sandwich or deli bars, nacho or taco bars, pasta bars, potato bars
	Prepackaged meals	Bag lunches and pre–plated meals
	Hamburger, similar beef/pork sandwiches	Hamburgers, sloppy joes, steak sandwiches, BBQ beef, pork or rib sandwiches, and meatball subs
	Cheeseburger, similar beef/pork sandwiches	Cheeseburgers, steak and cheese sandwiches, meatball and cheese subs, and rib sandwiches with cheese
	Hot dog, corn dog, similar sausage sandwiches	Hot dog on a bun, sausage on a bun, corn dogs, and pancake–on–a–stick

Table C.1 *(continued)*

Major	Minor	Examples
	Sandwiches with breaded/fried meat, poultry, or fish	Chicken patty, breaded beef or pork patty, breaded fish patty sandwiches and BLT sandwiches
	Sandwiches with plain meat, poultry, or fish	Turkey, ham, turkey ham, grilled chicken, and roast beef sandwiches
	Sandwiches with mayonnaise–based poultry, egg, or tuna salads	Chicken, egg, and tuna salad sandwiches
	Sandwich with meat substitute and/or vegetables	Burgers with vegetarian patties, vegetable only sandwiches, vegetable sandwiches with hummus
	Sandwiches with only cheese	Grilled cheese, cheese and vegetable sandwiches, cheese sandwiches, and Uncrustables
	Peanut butter sandwiches	Peanut butter and jelly sandwiches, Peanut butter and fluff sandwiches, and Uncrustables
	Breakfast sandwiches	Sandwiches with sausage, ham, cheese or egg on bagels, biscuits or english muffins
	Breakfast burritos	Burrito with eggs, cheese, sausage or bacon
	Pizza with meat	Sausage, pepperoni, chicken and breakfast pizzas
	Pizza without meat	Cheese pizzas and vegetable pizzas
	Pizza pockets, pizza sticks and calzones with meat	Calzones, pizza pockets and pizza sticks with pepperoni and cheese
	Pizza pockets, pizza sticks and calzones without meat	Calzones with cheese, pizza sticks without meat, cheese breadsticks, mozzarella sticks
	Mixtures with grain, meat/meat alternate and/or vegetables	Chicken, turkey, beef , pork with rice or noodles, Spaghetti with sauce, lasagna, macaroni and cheese, and ravioli
	Other mixtures with meat, grain, and/or vegetables	Stir–fry with chicken, beef, pork or tofu, egg rolls, chili, and baked potato with cheese and meat
	Mexican–style entrees	Burritos, tacos, nachos, quesadillas, fajitas, and enchiladas
	Entree salads	Chef salads, chicken caesar salad, taco salad, salads with tuna or chicken salad
	Parfaits	Parfaits with yogurt, fruit, and granola
Meat/Meat Alternates	Chicken and turkey, breaded or fried	Chicken nuggets, patties, tenders, poppers, and fried chicken
	Chicken and turkey, plain (not breaded or fried)	Grilled chicken, chicken fajita strips, roasted chicken breast and roasted turkey
	Chicken and turkey with sauce, gravy, or mayonnaise	Chicken or turkey salad, BBQ chicken, teriyaki chicken, turkey or chicken with gravy
	Fish and shellfish, breaded or fried	Fish sticks, nuggets or patties, and shrimp poppers
	Fish and shellfish with sauce, gravy, or mayonnaise	Tuna salad
	Meat, breaded or fried	Chicken fried steak, breaded beef patty, breaded pork patty, breaded veal patty
	Meat, plain (not breaded or fried)	Ground beef, beef patty, pork chops, ham, pork roast, meatloaf, beef and pork rib patties
	Meat with sauce, gravy, or mayonnaise	Salisbury steak, beef with gravy, beef stroganoff, beef barbeque, meatballs, sweet and sour pork, and sausage with gravy
	Sausage, frankfurters and cold cuts	Sausage patties/links, hot dogs, bologna, ham, and turkey ham
	Nuts, nut butters, seeds	Peanut butter, sunflower seeds, almonds, nuts

Table C.1 *(continued)*

Major	Minor	Examples
	Other protein, cheese	Regular and low /reduced fat cheese, cottage cheese, and cheese sauce
	Other protein, eggs	Omelets, hard boiled, scrambled and fried eggs
	Other protein, meat substitutes, hummus and legumes	Meatless chicken nuggets, hummus, refried beans, black beans, and chili
	Yogurt	Fruited or plain yogurt, nonfat, low–fat and regular
Grains/Breads	Breads, rolls, bagels, and other plain breads	White, wheat or whole grain bread, pita bread, bagels, English muffins, soft pretzels, tortillas
	Cold cereal, sweetened[a]	Any type of sweetened cold cereal: Honey Nut Cheerios, Golden Grahams, Lucky Charms, Cinnamon Toast Crunch
	Cold cereal, unsweetened	Any type of unsweetened cold cereal: Rice Krispies, Corn Flakes, Kix, Cheerios
	Hot cereal	Any type of cooked hot cereal, including oatmeal, grits, cream of wheat
	Crackers and pretzels (hard)	Saltines, wheat crackers, graham crackers, hard pretzels
	Biscuits and cornbread	Biscuits, croissants, cornbread, hush puppies, stuffing
	Corn/tortilla chips	Corn chips, tortilla chips, taco shells
	Bread or bread alternates with added fat	Buttered toast, buttered biscuit, bagel with cream cheese, garlic bread
	Muffins (excluding English muffins), sweet/quick breads	Blueberry muffins, chocolate chip muffins, wheat muffins, bran muffins, pumpkin bread
	Pancakes, waffles, French toast	Pancakes, waffles, French toast , waffle sticks, French toast sticks
	Rice	White, yellow or brown rice, rice pilaf, rice with vegetables, flavored rice not included in a combination entrée
	Pasta	Noodles, macaroni, and spaghetti not included in a combination entrée; pasta salad; macaroni and cheese as a side dish
	Other bread/grain	Egg rolls, cheese filled breadsticks
	Pastries[b]	Cinnamon buns, toaster pastries, donuts, fruit strudels, turnovers, and Danishes
	Granola bars and breakfast bars[b]	Cereal bars with fruit filling, granola bars, Milk 'N Cereal Bars
Desserts	Cake	Donuts, churros, cheesecake, coffee cake, cinnamon rolls, fried dough
	Cookies	Chocolate chip, oatmeal, sugar cookies, reduced fat cookies, whole wheat cookies, Rice Krispies treats
	Brownies	Brownies with and without icing
	Fruit cobblers and crisps	Cobblers, crisps, turnovers, strudel, and pie
	Granola bars and breakfast bars	Cereal bars with fruit filling, granola bars
	Desserts containing fruit or fruit juice	Fruit juice bars, gelatin with fruit, fruit sorbet
	Dairy based desserts	Pudding, ice cream, ice cream bars, yogurt
	Parfaits	Parfaits with yogurt, fruit, and granola
	Other desserts	Gelatin without fruit, ice pops, slushies, fruit snacks, candy

Table C.1 *(continued)*

Major	Minor	Examples
Other	Fruit drinks/ades (not 100% juice)	Lemonade, fruit punch, orange drinks, sports drinks
	Non–vegetable/non–entree soups	Chicken noodle soup, clam chowder, chicken vegetable soup, beef vegetable soup
	Snack foods	Potato chips, trail mix, nuts, seeds, and popcorn
	Bacon	Bacon, turkey bacon, Canadian bacon
	Bottled water	Plain spring or mineral water
Accompaniments	Fat–free or low–fat condiments and toppings	BBQ sauce, ketchup, mustard, syrup, jelly, sugar, salsa, pickles, vegetable items used as toppings and fat–free, low–fat or light condiments
	Higher fat condiments and toppings	Mayonnaise, tartar sauce, cheese sauce, chili, gravies, cheese, butter, margarine, cream cheese, sour cream (includes reduced fat cheese)
	Fat–free, low–fat, reduced fat, low or reduced calorie salad dressings	Fat–free, low–fat, reduced or low–calorie ranch, Italian, French, honey mustard or Caesar dressing
	Regular salad dressings	Ranch, Italian, honey mustard, French, and Caesar dressing
	Condiment or 'fixins' bar	Self–serve condiment, toppings, or 'fixins' bars

[a]A cereal was classified as sweetened if it contained 21.3 grams of sugar or more per 100 gram serving—the current criterion for cereals allowed under the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC).

[b]Cinnamon buns, toaster pastries, donuts, breakfast bars, and granola bars are included as a grain/bread at breakfast.

Table C.2. Availability of Self-Serve Food Bars in National School Lunch Program Lunches, by Menu-Planning System

	Percentage of Schools				
	Traditional Food–Based	Enhanced Food–Based	All Food–Based	Nutrient–Based	All Schools
Any Self-Serve Food Bar					
At least once per week	21[α]	36	25	33[γ]	27
Every day	14[α]	29	18	26[γ]	21
Any Salad Bar					
At least once per week	18	29	21	29[γ]	23
Every day	13	23	15	20	17
Side Salad Bar					
At least once per week	13	24	16	24[γ]	18
Every day	9	19	12	18[γ]	13
Entree Salad Bar					
At least once per week	6	6~	6	5~	6
Every day	4	5~	4	<3	3
Sandwich/Deli Bar					
At least once per week	4	9	5	8	6
Every day	<3	8	4	4~	4
Other Entree Food Bars[a]					
At least once per week	5	7~	6	7	6
Every day	<3	<3	<3	<3	<3
Number of Schools	**454**	**171**	**625**	**259**	**884**

Source: School Nutrition Dietary Assessment-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: None of the differences between enhanced food–based and nutrient–based are significantly different from zero.

[a] Includes baked potato bars, nacho or taco bars, and Italian/pasta bars.

[α]Difference between traditional food–based and enhanced food–based is significantly different from zero at the .05 level.
[γ]Difference between traditional food–based and nutrient–based is significantly different from zero at the .05 level.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

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Table C.3. Foods Offered in National School Lunch Program Lunches, by Menu-Planning System

	Percentage of Daily Lunch Menus				
	Traditional Food–Based	Enhanced Food–Based	All Food–Based	Nutrient–Based	All Schools
Milk	99[a]	>97	99	>97	100
Unflavored	98	>97	99	>97	99
1% fat	71	70	71	81	73
Skim or nonfat	47	53	48	43	47
2% fat	32	43[β]	35	18[γ]	30
Flavored	96	92	95	97	96
1% fat	64	65	64	61	63
Skim or nonfat	39	32	37	45	39
2% fat	5	3	4	<3[γ]	3
Vegetables	94	96	95	96	95
Vegetables, cooked	78	72	77	74	76
Starchy vegetables	51	48	50	51	50
French fries/similar potato products[b]	25	23	24	26	25
Corn	17	14	16	15	16
White potatoes	14	13	14	15	14
Green peas	5	7	6	4	5
Other vegetables	26	28	26	23	25
String beans	15	15	15	12	14
Mixtures and blends	10	12[β]	10	6[γ]	9
Legumes[c]	10	7	9	12	10
Dark green vegetables (mainly broccoli)	9	7	8	10	9
Orange vegetables (mainly carrots)	7	6	7	5	6
Vegetables, raw	53	61	55	71[γ]	59
Other vegetables	44	53	46	58[γ]	50
Side salads	26	24	25	32	27
Side salad bars	11[α]	21	13	20[γ]	15
Mixtures	7	5	6	4[γ]	6
Celery	3	6	4	7[γ]	5
Orange vegetables (carrots)	16	17	17	27[γ]	19
Fruits and Juices	90	87	90	85	88
Any fruit[d]	87	85	87	82	85
Canned fruit[e]	60	63	61	56	60
Peaches	21	20	21	18	20
Applesauce	20	18	19	15	18
Unsweetened	16	14	15	10[γ]	14
Sweetened	4	5	4	5	4
Pears	14	17	15	15	15
Fruit cocktail	16	20[β]	17	12	15
Pineapple	11	14	12	10	12
Mandarin oranges	4	5	5	4	4
Fresh fruit	58	56	58	63	59
Apple	38	36	38	43	39
Orange	27	23[β]	26	36[γ]	29
Banana	16	15	15	18	16
Pear	7	7	7	9	8

Table C.3 *(continued)*

	Percentage of Daily Lunch Menus				
	Traditional Food–Based	Enhanced Food–Based	All Food–Based	Nutrient–Based	All Schools
100% Fruit juice	27	25	26	30	27
Non–citrus juice	18	20	18	26	20
Apple juice	15	16	15	23	17
Grape juice	4	5	4	5	4
Fruit juice blend	3	4	4	7	4
Citrus juice (mainly orange)	19	15	18	20	18
Frozen fruit[f]	5	3	4	3	4
Combination Entrees	92	93[β]	92	97[γ]	94
Sandwiches with plain meat or poultry	30	30	30	33	30
Entree salads (chef's salads)	26	35	29	35	30
Pizza	27	30	28	37[γ]	30
Pizza without meat	19	22	20	26[γ]	21
Pizza with meat	16	20[β]	17	29[γ]	20
Peanut butter sandwiches	29	27	28	28	28
Sandwiches with breaded/fried meat, poultry, or fish	19	18	19	26[γ]	21
Mexican–style entrees (burritos, tacos, nachos)	16	18[β]	16	32[γ]	21
Hamburgers, similar beef/pork sandwiches	17	15	17	18	17
Cheeseburgers, similar beef/pork sandwiches	15	13[β]	15	24[γ]	17
Mixtures with meat, grain and/or vegetables (spaghetti, lasagna, macaroni and cheese)	14	13[β]	14	19[γ]	15
Hot dog, corn dog, similar sausage sandwiches	12	15	13	16	14
Self–serve salad bars and other food bars	9	13	10	10	10
Sandwiches with cheese only	9	9	9	10	9
Bag lunches and pre–plated meals	10[α]	5	8	9	9
Pizza pocket, pizza sticks, calzone (with or without meat)	7	8	7	7	7
Sandwiches with mayonnaise–based poultry or tuna salads	7	7	7	4	6
Other mixtures with meat, and/or vegetables (chili, chicken parmesan, stir–fry without rice)	5	5	5	7	6
Separate Grains/Breads[g]	60[α]	73[β]	64	60	63
Breads, rolls, bagels, and other plain breads	31	39[β]	33	25	31
Crackers and pretzels	19	27	21	25	22
Rice	10	12	10	12	11
Pasta	5	9	6	6	6
Corn/tortilla chips	5	3	4	5	4
Biscuits, cornbread	5	5	5	3	4

Table C.3 *(continued)*

	Percentage of Daily Lunch Menus				
	Traditional Food–Based	Enhanced Food–Based	All Food–Based	Nutrient–Based	All Schools
Meats/Meat Alternates[h]	41	47	43	46	43
Breaded/fried chicken nuggets, patties, similar products	17	17[β]	17	23[γ]	19
Meat (plain or breaded/fried beef, pork)	9	10	9	7	9
Yogurt	5[α]	15	8	9	8
Low fat or fat–free	4	12	6	9	7
Other meat alternates[i]	5	12	7	7	7
Plain (not breaded or fried) chicken and turkey	5	4	4	4	4
Other Menu Items	28	27[β]	28	43[γ]	32
Cookies, cakes, brownies	9	10[β]	9	17[γ]	12
Dessert items that contain fruit or juice (fruit juice bars, fruited gelatin)	7	5	7	7	7
Dairy–based desserts (ice cream, pudding)	3	4	4	5	4
Snack foods (popcorn, potato chips, trail mix)	4	4[β]	4	10[γ]	5
Number of Daily Menus	**2,175**	**813**	**2,988**	**1,242**	**4,230**
Number of Schools	**454**	**171**	**625**	**259**	**884**

Source: School Nutrition Dietary Assessment-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Table is limited to minor food groups offered in at least five percent of menus, overall, or for one or more menu planning systems. This is why, for example, whole milk does not appear in the table. The table does not account for individual food items offered as part of food bars, bag lunches, or pre–plated meals.

[a] One school that used traditional food–based menu planning offered a pre–plated meal every day. The meal included fluid milk, but the milk was not coded separately.
[b] Includes both oven–baked and deep–fried products.
[c] Legumes were coded as vegetables or meat alternates, depending on how they were used in the menu. Most legumes were offered as vegetables.
[d] Includes canned, fresh, frozen, or dried fruit.
[e] With the exception of applesauce, the majority of canned fruit was sweetened.
[f] Includes frozen strawberries, blueberries, and peaches.
[g] Grains and breads not included in combination entrees or served solely with a specific menu item.
[h] Meats and meat alternates not included in combination entrees.
[i] Includes cheese, peanut butter, nuts, eggs, hummus, legumes, and meat substitutes.
[α] Difference between traditional and enhanced food–based is significantly different from zero at the .05 level.
[β] Difference between enhanced food–based and nutrient–based is significantly different from zero at the .05 level.
[γ] Difference between traditional food–based and nutrient–based is significantly different from zero at the .05 level.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

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Table C.4. Availability of Fresh Fruits and Vegetables in National School Lunch Program Lunches, by Menu-Planning System

	Percentage of Schools				
	Traditional Food–Based	Enhanced Food–Based	All Food–Based	Nutrient–Based	All Schools
Number of Days Any Fresh Fruits or Vegetables Were Offered					
None	<3	<3	<3	<3	<3
1 to 2	9	10	9	4~	8
3 to 4	25	24	24	22	24
5	65	65	65	74	68
Mean number of days offered	4	4	4	5	4
Median number of days offered	4	4	4	4	4
Number of Days Any Fresh Vegetables (Served Raw or in Cooked Form) Were Offered[a]					
None	<3	<3	<3	<3	<3
1 to 2	11	6~	10	3[γ]~	8
3 to 4	27	24	26	20	24
5	61	70	63	77[γ]	67
Mean number of days offered	4	4	4	5	4
Median number of days offered	4	4	4	4	4
Number of Days Any Raw Fresh Vegetables Were Offered[a]					
None	5[α]	<3	4	<3[γ]	3
1 to 2	31	19	28	15[γ]	24
3 to 4	24	27	25	22	24
5	41	52	44	62[γ]	49
Mean number of days offered	3	4	4	4	4
Median number of days offered	3	4	4	4	4
Number of Days Any Cooked Fresh Vegetables Were Offered[a]					
None	6	<3	5	<3[γ]	3
1 to 2	31	34	32	24	30
3 to 4	34	37	35	48[γ]	39
5	29	26	28	28	28
Mean number of days offered	3	3	3	4	3
Median number of days offered	3	3	3	3	3
Number of Days Any Fresh Fruits Were Offered[b]					
None	12	19	14	12	14
1 to 2	33	35	33	20[γ]	30
3 to 4	18	14	17	23	19
5	37	32	36	44	38
Mean number of days offered	3	3	3	3	3
Median number of days offered	3	2	2	4	3
Number of Schools	**359**	**130**	**489**	**207**	**696**

Source: School Nutrition Dietary Assessment-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Includes only schools that provided menu information for five days.

[a]Excludes canned and frozen vegetables.

Table C.4 *(continued)*

[b] Excludes canned, frozen, and dried fruits and fruit juices.
[α] Difference between traditional and enhanced food–based is significantly different from zero at the .05 level.
[β] Difference between enhanced food–based and nutrient–based is significantly different from zero at the .05 level.
[γ] Difference between traditional food–based and nutrient–based is significantly different from zero at the .05 level.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table C.5. Choice and Variety in School Breakfast Program Breakfasts, by Menu-Planning System

	Percentage of Daily Breakfast Menus				
	Traditional Food–Based	Enhanced Food–Based	All Food–Based	Nutrient–Based	All Schools
Number of Types of Milk Offered per Day					
No more than 1	15	11	14	17	15
2	34	35	35	39	36
3	27	34	29	29	29
4 or more	24	21	23	15	21
Median number of different items per day	2	2	2	2	2
Median number of different items per week[a]	2	3	2	2	2
Number of Fruits/Vegetables/100% Juices Offered per Day[b]					
No more than 1	39	28	36	25[γ]	33
2	23	25	23	24	23
3	18	25	20	24	21
4	12	12	12	11	11
5 or more	8	11	9	16[γ]	11
Median number of different items per day	1	2	2	2	2
Median number of different items per week[a]	3	3	3	4	4
Number of Separate Grains/Breads Offered per Day[c]					
No more than 1	34	27	32	26	30
2	32	28	31	32	31
3	18	20	19	22	19
4	9	9	9	11	10
5 or more	7	16	9	9	9
Median number of different items per day	2	2	2	2	2
Median number of different items per week[a]	5	4	4	5	5
Number of Separate Meats/Meat Alternates Offered per Day[d]					
None	60	53	58	61	59
1	30	32	31	30	31
2 or more	10	15	11	9	11
Median number of different items per day	0	0	0	0	0
Median number of different items per week[a]	1	1	1	1	1
Number of Combination Entrees Offered per Day					
None	63	55	61	54[γ]	59
1	29	31	29	34	31
2 or more	8[α]	14	10	12	10
Median number of different items per day	0	0	0	0	0
Median number of different items per week[a]	1	1	1	1	1
Number of Side Items Offered per Day					
No more than 2	n.a.	n.a.	n.a.	4	n.a.
3 to 4	n.a.	n.a.	n.a.	25	n.a.
5 to 6	n.a.	n.a.	n.a.	26	n.a.
7 to 8	n.a.	n.a.	n.a.	23	n.a.
9 or more	n.a.	n.a.	n.a.	22	n.a.
Median number of different items per day	n.a.	n.a.	n.a.	6	n.a.
Median number of different items per week[a]	n.a.	n.a.	n.a.	13	n.a.
Number of Daily Menus	**1,877**	**751**	**2,628**	**1,197**	**3,825**
Number of Schools	**396**	**159**	**555**	**248**	**803**

Source: School Nutrition Dietary Assessment-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Table C.5 *(continued)*

Notes: Differences between medians were not tested for statistical significance. None of the differences between enhanced and nutrient–based are significantly different from zero.

[a]Includes only schools that provided menu information for five days.
[b]Fruits and vegetables not included in combination entrees.
[c]Grains and breads not included in combination entrees. All varieties of cold cereal were counted as one grain/bread choice.
[d]Meats and meat alternates not included in combination entrees.

[α]Difference between traditional and enhanced is significantly different from zero at the .05 level.
[γ]Difference between traditional and nutrient–based is significantly different from zero at the .05 level.

n.a. = not applicable.

Table C.6. Foods Offered in School Breakfast Program Breakfasts, by Menu-Planning System

	Percentage of Daily Breakfast Menus				
	Traditional Food–Based	Enhanced Food–Based	All Food–Based	Nutrient–Based	All Schools
Milk	>97	>97	>97	>97	>97
Unflavored	>97	>97	>97	>97	>97
1% fat	68	71	69	80[γ]	72
Skim or nonfat	42	44	42	41	42
2% fat	35	42[β]	37	17[γ]	31
Flavored	74	75	74	78	75
1% fat	51	52	51	49	50
Skim or nonfat	29	27	28	34	30
Fruits and 100% Fruit Juices	97	97	97	98	97
100% Fruit juice	87	92[β]	88	81	86
Citrus juice	61[α]	73	65	65	65
Orange juice	59[α]	71	62	65	63
Fruit juice blend	5	6	5	<3[γ]	4
Non–citrus juice	64	69	65	62	64
Apple juice	54	57	55	54	55
Grape juice	24[α]	39[β]	28	18	25
Fruit juice blend	9	5[β]	8	13	10
Any fruit[a]	45[α]	47	46	66[γ]	51
Fresh fruit	35	35[β]	35	50[γ]	39
Apple	21	21[β]	21	32[γ]	24
Orange	15	14	14	22	17
Banana	11	13	12	18[γ]	14
Canned fruit[b]	14	16[β]	15	28[γ]	19
Peaches and pears	8	7[β]	8	15[γ]	10
Applesauce	4	5	4	6	5
Vegetables	2	<3[β]	2	7[γ]	3
Hash browns, potato puffs, french fries[c]	2	<3[β]	2	6[γ]	3
Separate Grains/Breads[d]	91	93	92	96[γ]	93
Cold cereal	69	79	72	85[γ]	76
Sweetened	62	73	65	74[γ]	68
Unsweetened	29	33	30	42[γ]	33
Pastries	23	28	24	29	25
Cinnamon buns	7	11	9	16[γ]	11
Toaster pastries	9	14	11	8	10
Donuts	7	7	7	9	8
Strudels, turnovers, Danishes	3	3	3	2	3
Breads, rolls, bagels, other plain breads	23	30	25	20	24
Muffins (excludes English muffins), sweet/quick breads	20	24	21	23	22
Pancakes, waffles, French toast	18	23	20	24[γ]	21
Buttered toast, bagels with cream cheese	19	16	18	21	19
Crackers (mainly graham)	16	19	17	17	17
Biscuits, cornbread	11	12	11	9	11
Grain and fruit cereal bars, granola bars	8	8	8	12	9
Hot cereal	7	5	7	6	6

Table C.6 *(continued)*

	Percentage of Daily Breakfast Menus				
	Traditional Food–Based	Enhanced Food–Based	All Food–Based	Nutrient–Based	All Schools
Meats/Meat Alternates[e]	40	47	42	39	41
Yogurt	17[α]	29[β]	21	16	19
Low fat or fat–free	12[α]	25[β]	16	15	15
Regular	5	4	5	2[γ]	4
Sausage	12	12	12	12	12
Eggs	9	10	9	10	9
Cheese	6	8	7	5	6
Breaded chicken patties and nuggets	4	4	4	<3[γ]	3
Combination Entrees	37	45	39	47[γ]	41
Breakfast sandwiches[f]	13	18	14	15	15
Pizza (all types)	9	15	11	12	11
Sausage with pancake, corn dog, similar products	7	9	7	8	7
Breakfast burritos	5	6	5	8[γ]	6
Peanut butter sandwiches	4	5	4	5	4
Number of Daily Menus	**1,877**	**751**	**2,628**	**1,197**	**3,825**
Number of Schools	**396**	**159**	**555**	**248**	**803**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Table includes only schools that participate in the School Breakfast Program. Table is limited to food groups offered in at least five percent of menus, overall, or for one or more school types. This is why, for example, whole milk does not appear in the table. The table does not account for individual food items offered as part of food bars or bagged/pre–plated meals.

[a]Includes canned, fresh, frozen, and dried fruit.
[b]With the exception of applesauce, the majority of canned fruit was sweetened.
[c]Includes both oven–baked and deep–fried products.
[d]Grains and breads not included in combination entrees or served solely with a specific menu item.
[e]Meats and meat alternates not included in combination entrees.
[f]Includes sandwiches with egg, cheese, sausage, ham or other types of meat on a biscuit, English muffin, bagel, or croissant.

[α]Difference between traditional and enhanced food–based is significantly different from zero at the .05 level.
[β]Difference between enhanced food–based and nutrient–based is significantly different from zero at the .05 level.
[γ]Difference between traditional food–based and nutrient–based is significantly different from zero at the .05 level.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

APPENDIX D

METHODS USED IN ANALYSIS OF THE NUTRIENT AND FOOD GROUP CONTENT OF SCHOOL MEALS AND AFTERSCHOOL SNACKS

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TABLES

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This appendix describes how the calorie, nutrient, and food group content of NSLP lunches, SBP breakfasts, and afterschool snacks was measured for the analyses presented in Chapters 5 through 12 of this report. To permit comparison with previous SNDA studies, these procedures replicated as closely as possible those used in the previous studies (SNDA-I through SNDA-III) (Burghardt et al. 1993; Fox et al. 2001; Gordon et al. 2007).

The data used to assess the calorie, nutrient, and food group content of reimbursable meals and snacks were obtained from a menu survey that was completed by FSMs in participating schools. The menu survey collected detailed information (for a five-day school week) about the foods and beverages offered in school meals. Details about how these data were processed to generate nutrient and food group estimates is provided in Volume II, Chapter 4 of this report. This appendix describes how the variables created from the menu survey data were analyzed. Variables for each daily menu included the type of meal/snack, the total number of meals/snacks served, and, for each food and beverage, a USDA food code, food name/description, portion size and number of reimbursable portions served. The USDA Food and Nutrient Database for Dietary Studies (FNDDS; version 3.0) provided the calorie and nutrient values (USDA, Agricultural Research Service, 2008), and the MyPyramid Equivalents Database for USDA Survey Foods, 2003–2004, (MPED; version 2.0) provided the number of equivalents for food groups (Bowman et al. 2008). All nutrients and dietary components targeted in the SMI nutrition standards were analyzed: calories, protein, vitamins A and C, calcium, iron, total fat, and saturated fat. Levels of cholesterol, sodium, and dietary fiber were also assessed. The five main food groups in the USDA Food Patterns—vegetables, fruits, grains, dairy foods, and protein foods—were analyzed, in addition to whole grains and five vegetable subgroups. Oils and calories from solid fats and added sugars were also included.

A. Computing the Average Nutrient and Food Group Content of Meals and Snacks *Offered*

Estimates of the nutrient and food group content of school meals *offered* to students are based on an *unweighted* nutrient analysis. Because of differences in the basic structure of the meals, the unweighted analysis procedures differed somewhat for schools using food–based versus nutrient–based menu–planning systems,[1] and for breakfasts versus lunches. Each variation of the basic methodology is described in the sections that follow.

1. Schools Using Food–Based Menu Planning

For schools using the traditional or enhanced food–based menu–planning systems, the unweighted analysis assumed that every child takes one average serving of each meal component, including any non–creditable items served with those foods (for example, salad dressing or other toppings).[2] For lunches, this included the following:

- An average serving of milk

[1] For example, nutrient-based menu planning did not require that all meal components included in the food-based meal pattern be offered.

[2] Meal patterns for the two food-based menu planning systems required the same main meal components; differences relate only to the amounts of fruits and vegetables and grains/breads required.

- One average entrée or meat/meat alternate
- An average number of servings of fruit and/or vegetables, based on the number students were *allowed* to take
- An average serving of grain or bread, if offered separately from entrees
- An average serving of desserts or other extra items (if offered)
- An average serving of unlinked accompaniments (if offered)

In SNDA-IV, we used a modified approach for determining the number of fruit/vegetable servings to include in the unweighted analysis for each school in order to better reflect school practice in this area. In SNDA-II and SNDA-III, the number of fruits and vegetables was based on the average number of servings reported during the menu survey week. Reported servings are likely to underestimate the actual number of fruits and/or vegetables offered to students, especially in schools that use the OVS option. For this reason, the SNDA-IV analysis was based on FSM reports about the number of fruit/vegetable servings students were allowed to take in NSLP lunches (this information was collected in the FSM survey).[3]

For breakfasts in schools using the traditional or enhanced food–based menu–planning systems, the unweighted analysis assumed:

- An average serving of milk
- An average serving of fruit, juice, and/or vegetables
- Two average servings of grains/breads and/or meat/meat alternates
- An average serving of unlinked accompaniments (if offered)

In principle, computing an unweighted average is a fairly straightforward process. However, the computation is preceded by a complex data preparation process. Weighting factors must be applied to appropriately account for multiple offerings within meal component groups, to link menu items offered together but reported separately (such as salad and salad dressings), and to avoid double-counting menu items that include foods from more than one meal component group (for example, salad bars that include both meat or meat alternates and vegetables). Computing the weighting factors for the unweighted analysis of NSLP lunches involved six steps:

- **Step 1: Assign menu items to meal component groups.** All menu items were assigned to one of the meal component groups used in the unweighted analysis. For schools using food–based menu planning, these included milk, fruit/vegetables, grains/breads, combination entrees, meat/meat alternates, desserts and other extras, salad dressings, and accompaniments (toppings, condiments, and spreads).

[3] We assessed differences between results of two different estimation approaches and found that the differences were small and had no material effect on any substantive findings. Appendix K includes tables that present results for both the SNDA-IV and SNDA-III methods (Tables K.1 and K.1a, respectively).

- **Step 2: Assign weights to major meal component groups.** Initially, equal weight was given to each option within a meal component group, using a base of 300 (representing 300 reimbursable meals).[4] For example, if four types of milk were offered, each type was assigned a weight of 75 (300 ÷ 4 = 75). For fruits and vegetables, the base of 300 was multiplied by the number of fruit/vegetables students were allowed to take (as reported by FSMs) and divided by the number of fruit/vegetable choices on each menu day. For example, if a school allowed students to take three fruit/vegetable servings and offered six different fruit/vegetable choices on a menu day, each would be assigned a weight of 150 (300 * 3 = 900; 900 ÷ 6 = 150).

- **Step 3: Assign weights to grains/breads served with meat/meat alternates or entrees.** Menu items that were "linked" to (served with but reported separately from) other foods were assigned the same weight as the food with which they were served. Common examples include a roll served with chicken nuggets, crackers served with a chef's salad, and rice served with stir-fried chicken and vegetables. If it appeared that a grain/bread was "unlinked" (available to all students), it was assigned the full base weight of 300.

- **Step 4: Assign weights to salad dressings.** The weights assigned to salad dressings were based on the weights assigned to salads (excluding salad bars) so that the unweighted analysis would include one average serving of dressing for each salad. An average serving of salad dressing was included during the coding of self–serve salad bars, so these bars were not considered in assigning weights to salad dressing.

- **Step 5: Assign weights to accompaniments.** The unweighted analysis assumed one average serving of unlinked accompaniments (such as shredded cheese, sour cream, ketchup and margarine) that were not served exclusively with another menu item. Unlinked accompaniments were assigned weights using a base weight of 300 divided by the number of "unlinked" items. For example, for ketchup, mayonnaise, and mustard offered on a menu with hamburgers, cheeseburgers, turkey sandwiches, and French fries, the accompaniments were considered "unlinked" and each received a weight of 100 (300 ÷ 3).

  Accompaniments were linked in the data file to the items they were served with if there was a clear indication that the accompaniment was served exclusively with a specific menu item (for example, a burrito served with salsa and sour cream or chicken nuggets served with barbeque sauce). These items were assigned the weight already assigned to the main item to which it was linked. For example, if barbeque sauce was included in a menu in which the three entrees (and their weights) were pizza (100), chicken nuggets (100), and a ham sandwich (100) and the barbecue sauce was linked to the chicken nuggets, the weight for the barbecue sauce would be 100 – the same weight as the chicken nuggets. However, if it appeared that students were offered a choice between linked accompaniments (different amounts of each were served), weights were assigned so that one average serving of accompaniments would be included with the main food item.

[4] In SNDA-II, a base of 1,000 was used; however, USDA guidance suggests using a base of 300 which is divisible by all numbers up to six (USDA/FNS n.d.) http://www.fns.usda.gov/tn/resources/nutrientanalysis.html .

- **Step 6: Adjust weights to account for salad bars, food bars, pre–plated meals, and bag lunches.** Weighting factors were adjusted to account for multi-component menu entrée choices to ensure that meal components would not be double counted in the unweighted analysis. For example, if a bag lunch included a sandwich, carrot sticks, and a brownie, it was coded as an entrée and assigned a weight accordingly (Steps 1 and 2). However, because the bag lunch also included a fruit/vegetable and dessert serving, the weight assigned to the bag lunch was subtracted from the total weights for those meal component groups. The weights for individual fruit/vegetable and dessert items not part of the bag lunch, and any linked items, were then recalculated (Steps 2 through 5).[5]

An additional step was required in assigning weighting factors for breakfast menus. At breakfast, food–based meal pattern requirements call for two servings of grains/breads, two servings of meat/meat alternate, or one serving of each. Many schools offer single breakfast items that fulfill this requirement—usually two or more grains/breads or a combination of grain/bread and meat/meat alternate (for example, a 2 oz. bagel; egg and cheese on English muffin; or biscuit with sausage). Based on portion size, each grain/bread, meat/meat alternate, and entrée item was assigned a "meat/grain" serving equivalent (either one or two). This ensured that weights were assigned to breakfast menus such that the "average" breakfast included two average servings of grain/bread and/or meat/meat alternate.[6]

2. Schools Using Nutrient–Based Menu Planning

Schools using nutrient–based menu planning were required to offer three items in a reimbursable lunch: milk, an entrée, and at least one side (for example, fruits, vegetables, grains/breads, or desserts). At breakfast, milk and at least two sides were required. Individual schools could decide how many sides a student could take, and some specified the particular groups of sides required or the maximum number of selections allowed per group. For SNDA-IV, this information was collected from foodservice managers and used for assigning weights to foods in the unweighted analysis.

The majority of schools using nutrient–based menu planning allowed students to select any type of food to provide the allowable number of sides (81 percent at lunch and 68 percent at breakfast) and did not divide sides into specific groups (for example, fruits and vegetables, grains/breads, desserts). About three-quarters of schools at lunch and breakfast (73 percent at lunch; 79 percent at breakfast) set a maximum for the number of sides allowed, either as a group or by type of sides group.

After incorporating the school-specific information on the number and types of sides offered, the process for computing unweighted averages for schools using a nutrient–based menu–planning system was similar to that described in Steps 1 through 6 for schools using a food–based system. That is, weighting factors were assigned to choices within each relevant meal component group,

[5] Appendix E (Exhibit E.5) of the final report for SNDA-II provides an example of the adjustments described in Step 6 (Fox et al. 2001).

[6] USDA menu planning guidance was used to define meat/grain equivalents (USDA/FNS 1998).

with the appropriate adjustments made to prevent double-counting. For schools using nutrient–based menu planning, the average lunch as *offered* consisted of:

- An average serving of milk
- One average entrée or meat/meat alternate
- At least one average serving of a non-milk, non-entrée item side (number of servings based on school policy)
- An average serving of unlinked accompaniments (if offered)

For breakfasts in school using nutrient–based menu planning, the average breakfast as *offered* included the following:

- An average serving of milk
- At least two average sides (which could include a "breakfast entrée"; actual number of sides determined by school policy)
- An average serving of unlinked accompaniments (if offered)

3. Computing Unweighted Nutrients and Food Groups

After all menu items were assigned weighting factors, calorie, nutrient, and food group values were computed for each item offered on daily menus (calories, nutrients, and food group equivalents in one portion multiplied by assigned offer weight). Nutrient and food group values were totaled within each menu, and the resulting total was then divided by the base weight of 300. To obtain the overall average nutrient and food group content of the meals as *offered*, daily totals were averaged across the week (five days or, for some schools, three or four days).

B. Computing the Average Nutrient and Food Group Content of School Meals *Served*

Estimation of the nutrient and food group content of meals *served* to students involves a *weighted* analysis, which takes into account the number and types of foods actually served to students. The analysis gives greater weight to the nutrient and food group equivalent values of foods that students select more frequently. A weighted analysis requires information on the actual number of portions served of each menu item available in the reimbursable meals. It can sometimes be difficult for schools to provide this information, in part because reimbursable items can also be sold a la carte and to adults. Thus, in SNDA-IV, as in all previous SNDA studies, servings data were sometimes estimated by school foodservice staff.

The procedures for the weighted nutrient analysis were the same regardless if the school used a food–based or nutrient–based menu–planning system, for both breakfast and lunch menus. The menu survey data file included information on the total number of reimbursable meals served for each daily menu, the number of portions of each menu item included in those meals, and the nutrient and food group content of one portion of each item. Computing a weighted average of the calorie, nutrient, and food group content of a reimbursable meal involved three steps:

- **Step 1.** For each menu item, the total number of portions served to students was multiplied by the amount of calories, nutrients, and food group equivalents in one portion.
- **Step 2.** The total calories, nutrients, and food group equivalents served were then summed across all foods within a daily menu. For example, the total amount of vitamin A was calculated as the sum of vitamin A in 200 cartons of one percent milk, 50 cartons of skim milk, 250 chicken sandwiches, 100 slices of pizza, 150 salads, and so on.
- **Step 3.** The resulting sum was then divided by the total number of reimbursable meals served to determine the nutrient and food group content of the average meal *served* to (or selected by) students.

As for the unweighted nutrient analysis, to determine the overall average for each school, daily calorie, nutrient, and food group values were averaged across the week.

C. Comparison of Assumptions for Weighted and Unweighted Nutrient and Food Group Analyses

Table D.1 illustrates weighting factors for a weighted and unweighted analysis of a sample NSLP lunch menu. For the weighted analysis, the actual number of portions served and the total number of reimbursable meals were used to create a "serving weight," which determined the nutrient and food group contribution from each item on the menu. For the unweighted analysis, "offer weights" were calculated, as described above, and are shown for both a school that uses food–based menu planning and a school that uses nutrient–standard menu planning.

The unweighted analysis for both menu–planning systems assumed one entrée and one serving of milk for each student (even though the number of portions served indicates that not all students that received a reimbursable lunch took milk). Thus, offer weights were calculated as 60 for entrees and 100 for each type of milk (base of 300 divided by number of options offered).

For schools using food–based menu planning, as described in section A, offer weights for fruit/vegetables depended on the number of servings students were allowed to take—in the case shown in Table D.1, it was three servings, as reported by the FSM. The fruit/vegetable offer weight was calculated with a base of 300 meals, multiplied by the three allowed servings, and then divided by the four fruit/vegetable menu items offered (900 ÷ 4). A full weight of 300 was assigned to both the dinner roll and the brownie, as each was the only food offered within its respective meal component group (grain/bread and dessert/other, respectively). The nacho chips, butter, and Italian dressing were given the same offer weight as the item each was linked to. Finally, the offer weights for unlinked accompaniments were split evenly between the three condiments – ketchup, mustard, and taco sauce (300 ÷ 3).

Schools using nutrient–based menu planning did not differentiate between types of sides, but did limit students to a maximum of three sides per lunch. Consequently, the offer weight for orange juice, peaches, French fries, side salad, dinner roll, and brownie was calculated as 300 multiplied by three sides per meal, divided by the six side options on the menu (900 ÷ 6). Foods linked to any of the sides, like the salad dressing and butter, all received the same offer weight as the side (150). The rules for assigning offer weights to unlinked accompaniments for the nutrient–based lunch were the same as the food–based lunch.

Table D.1. Example of Weighting Factors For Unweighted and Weighted Nutrient and Food Group Analysis of National School Lunch Program Menus

		Unweighted Analysis	
	Weighted Analysis	Food–based Menu Planning[a]	Nutrient–based Menu Planning[b]
Number of Reimbursable Meals	**550**	**300**	**300**
	Number of Portions Served/Offered		
Menu Item			
1% Milk	255	100	100
Skim Milk	25	100	100
2% Chocolate Milk	195	100	100
Hamburger	85	60	60
Taco	40	60	60
Cheese Pizza	250	60	60
Beef and Bean Burrito	50	60	60
Chicken Patty Sandwich	125	60	60
Orange Juice	435	225	150
Canned Peaches	295	225	150
French Fries	525	225	150
Side Salad	300	225	150
Dinner Roll (not linked to entrée)	315	300	150
Nacho Chips (linked to taco)	40	60	60
Brownie	350	300	150
Ketchup	225	100	100
Mustard	75	100	100
Butter (linked to roll)	250	300	150
Taco Sauce	100	100	100
Italian Dressing (linked to salad)	325	225	150

Note: Information on actual number of portions served for weighted analysis (serving weights) was provided by school foodservice managers. Weighting factors assumed for the unweighted analysis (offer weights) were assigned by Mathematica staff assuming an equal distribution across menu items within the same meal component group (milks, entrees, fruit/vegetables, breads/grains, desserts/other, and condiments).

[a]Offer weights for fruit/vegetables were based on the assumption that students could take three servings of fruit/vegetables (as reported by the foodservice manager). Thus, the base number of meals for fruit/vegetable weights was 3 times 300, or 900 meals.

[b]Offer weights assumed that students were allowed to take up to three sides, of any type, per meal (as reported by the foodservice manager). The base for computing weights for sides was then 3 times 300, or 900 meals. Sides included the fruit and vegetables, breads/grains, and desserts.

D. Assessing the Percentage of Schools Meeting SMI Nutrition Standards and Other Relevant Recommendations

A key outcome for the analyses of NSLP lunches and SBP breakfasts *offered* and *served* was to assess the proportion of schools with average meals that satisfied the SMI nutrition standards (the standards that were in place at the time SNDA-IV data were collected) and other relevant nutrition recommendations. As described in Chapters 5 and 7 of this report (Tables 5.1 and 7.1), the SMI standards specify quantitative goals for (1) calories, protein, and key vitamins and minerals—which, at the time of this report, were based on the 1989 RDAs; and (2) total fat and saturated fat, which

incorporate the 1995 *Dietary Guidelines* recommendations (USDA and HHS 1995). Meal-specific benchmarks assume one-third of the 1989 RDAs for lunch and one-fourth for breakfast.

The SMI standards do not include specific quantitative goals for sodium, cholesterol, or fiber, but regulations encourage a "reduction" of sodium and cholesterol content and an "increase" in dietary fiber content. For SNDA-IV, benchmarks based on the 2010 *Dietary Guidelines* (USDA and HHS 2010) were used to assess the sodium, cholesterol, and dietary fiber content of school meals. In addition, an additional standard for fat content was used, based on the 2010 *Dietary Guidelines* recommendation for school-age children. It is important to note that schools were not required to meet these standards at the time data were collected.

The analysis also included an assessment of the proportion of schools that met all of the SMI standards, as well as different combinations of SMI standards and other benchmarks. The combinations included in the analysis were developed in consultation with FNS staff, and some were designed to provide insight into how school meals *offered* and *served* in SY 2009–2010 compared to potential new requirements for school meals that were under consideration at the time this report was prepared.

1. Calories and Target Nutrients

The SMI minimum requirements for calories and key nutrients in NSLP and SBP meals are 33 percent of RDA and 25 percent of RDA, respectively. One methodological issue that arises in assessing the percentage of schools whose average meals meet these standards is defining the specific RDA values to use for each school since the 1989 RDAs differ for children of different ages. SMI regulations and technical guidance provide RDA–based standards for menu planning and for State agencies conducting a nutrient analysis of school meals as part of an SMI review. For schools using food–based menu planning, separate RDA–based standards for NSLP lunches are provided for various meal pattern grade groups (K through 3, K through 6, 4 through 12, and 7 through 12).[7] Schools using nutrient–based menu planning have the option of using the RDA–based standards provided for specific age or grade groups or customizing their standards to the ages of children in the school, using USDA–approved nutrient standard menu–planning software. In assessing compliance with nutrition standards, SMI reviewers are required to use the standards for the same age/grade group(s) the SFA or school has used to plan its menus. This information, however, was not available for the analysis of meals *offered* and *served* in SNDA-IV.

Following the approach used in SNDA-II and SNDA-III, the RDA–based standards used in the SNDA-IV menu analyses were customized for each school, based on the range of grades participating in the NSLP and SBP. The resulting RDA standards for schools with grade spans that encompassed more than one RDA age/gender group (1 to 3 years, 4 to 6 years, 7 to 10 years, 11 to 14 years, and 15 to 18 years) reflect the proportion of each RDA age group in that school, with equal weight given to each group. For example, the RDA standard used for an elementary school comprised of students in kindergarten (mainly 5-year olds) through grade 5 (mainly 10-year olds) is a

[7] Because the age groups for which 1989 RDAs were established do not correspond exactly to USDA meal pattern grade groups, the RDA-based standards were derived by weighting the values for relevant age groups. For schools with a broad range of grades, regulations require that standards for at least two grade or age groups be used when planning and analyzing lunch menus. For breakfast, standards for all schools are based on RDAs for grades K though 12.

weighted average of the 1989 RDAs for the 4-to-6 and 7-to-10 age groups. The RDA standard for this school would be customized as follows: [(RDA for 4-to-6 year olds * 2/6) + (RDA for 7-to-10 year olds * 4/6)].

In addition to ensuring comparability with SNDA-II and SNDA-III, the customized approach to establishing specific RDA–based standards offers two other important features: (1) it provides the most accurate assessment of how well the meals *offered* and *served* meet the nutritional needs of the children in the school[8] and (2) it allows all schools' menus to be assessed with a common method. Still, it is important to recognize that the approach may yield slightly different results than those from an SMI review for an individual school.

To facilitate interpretation of results from analyses of the percentage of schools that *offered/served* meals that satisfied the RDA–based standards, the minimum standards for NSLP lunches for grade spans K through 6 and 7 through 12, and for SBP breakfasts, for K through 12, are shown in Table D.2.[9] These values approximate the RDA–based standards that would have been used by SMI reviewers for the vast majority of schools in the SNDA-IV sample. Taking into account the flexibility allowed schools with only one grade outside the established ranges, 87 percent of elementary schools fell into the K through 6 range, and 89 percent of middle schools and 100 percent of high schools had grades exclusively in the 7 to 12 range. Thus, the likelihood that results from SNDA-IV and SMI review comparisons with RDA–based standards would differ is limited to only a small share of schools.

Table D.2. Minimum Calorie and Nutrient Levels for National School Lunch Program Lunches and School Breakfast Program Breakfasts

	NSLP Lunches		SBP Breakfasts
	Grades K-6	Grades 7-12	Grades K-12
Calories	664	825	554
Protein (g)	10	16	10
Vitamin A (RE)	224	300	197
Vitamin C (mg)	15	18	13
Calcium (mg)	286	400	257
Iron (mg)	3.5	4.5	3.0

Source: SMI regulations for NSLP and SBP menus planned under the nutrient–standard or enhanced food–based menu–planning systems (7 CFR Parts 210 and 220; Office of the Federal Register 2004). Required nutrient levels for menus planned under the traditional food–based system are specified for grades K-3 and 4-12 (not shown), with grades 7-12 optional for lunch.

Note: Calorie and nutrient targets are based on one-third of the 1989 *Recommended Dietary Allowances* (RDAs) for specified grade groups at lunch and one-fourth of the 1989 RDA at breakfast (National Research Council 1989).

RE = Retinol equivalent; NSLP = National School Lunch Program; SBP = School Breakfast Program.

[8] In addition, the approach is consistent with USDA menu planning guidance for schools using nutrient-based menu planning.

[9] Specific standards for all age/grade groups using in NSLP menu planning can be found in program regulations or "Nutrient Analysis Protocols: How to Analyze Menus for USDA's School Meals Programs." (USDA/FNS n.d.) http://www.fns.usda.gov/tn/resources/nutrientanalysis.html.

Note that under the current regulations, secondary schools are permitted to plan and serve breakfasts that meet less-stringent criteria than the customized RDA–based standards used in SNDA-IV analyses. (The minimum RDA–based nutrition standards for the SBP are defined for all children in grades K through 12.) Supplemental analyses conducted for SNDA-II found that when minimum SBP nutrition standards were used as a benchmark, the percentage of secondary schools that met the RDA–based standards was greater and, for some nutrients, the percentage of elementary schools was lower than that observed using customized RDA standards (Fox et al., 2001; Exhibit B.3).

The average and distribution of nutrients per 1,000 calories in NSLP lunches and SBP breakfasts *offered* and *served* were also compared to DRIs per 1,000 calories. The per-1,000-calorie reference standards were based on RDAs, AIs, ULs, and 2010 *Dietary Guidelines* recommendations. The DRI age groups are 4 to 8 years, 9 to 13 years, and 14 to 18 years. A weighted calorie level was used for each age group, assuming a moderately active level of physical activity (IOM 2010). The following calorie levels were assumed for each age/gender subgroup: 1,700 calories for males and females 4 to 8 years, 1,900 calories for males and females 9 to 13 years, 2,600 calories for males 14 to 18 years, and 2,000 calories for females 14 to 18 years. These comparisons can be found in Appendix E (Tables E.17 to E.24) and Appendix G (Tables G.17 to G.24).

2. Fat and Saturated Fat

Assessing the proportion of schools with average meals that satisfy the SMI standards for fat and saturated fat was straightforward. The 1995 *Dietary Guidelines* goals of no more than 30 percent of calories from total fat and less than 10 percent of calories from saturated fat apply to all individuals over the age of two, so there was no need to "weight" the standards. The 2010 *Dietary Guidelines* recommendation for fat has been adjusted from no more than 30 percent of calories from total fat to a range of 25 – 35 percent of calories (AMDR); thus, NSLP lunches and SBP breakfast were also compared to this updated benchmark. The *Dietary Guidelines* recommendation for saturated fat has not changed and is therefore the same as the SMI standard. Results of SNDA-IV analyses pertaining to calories from total fat and saturated fat (using the SMI standards) are consistent with those that would be obtained from an SMI review.

3. Cholesterol, Sodium, and Dietary Fiber

Standards based on the 2010 *Dietary Guidelines* were used to assess the cholesterol, sodium, and dietary fiber content of the school meals. For NSLP lunches and SBP breakfasts, weekly averages for each school were compared to one-third and one-fourth, respectively, of the recommended daily limits for sodium and cholesterol. The standard for assessing cholesterol (less than 300 mg) has not changed since the SNDA-I study was conducted. However, the sodium standard used in SNDA-IV is based on the 2010 *Dietary Guidelines* recommendation (less than 2,300 mg per day) and is slightly lower than the benchmark used in previous SNDA studies, which was based on a recommendation of less than 2,400 mg per day. The fiber benchmark is based on a density standard of 14 grams of dietary fiber per 1,000 calories and is higher than the reference standards used in previous SNDA studies.

E. Assessing the Potential Contributions of Reimbursable Meals to USDA Food Patterns

An appropriate and important addition to SNDA-IV is the assessment of food group content of NSLP lunches and SBP breakfasts and how the meals compare to USDA Food Patterns. The analysis examined the average amounts (equivalents) of each food group provided in schools meals in comparison to USDA Food Patterns for a range of age/gender groups and calorie levels appropriate to each school level. The appropriate USDA Food Pattern for any individual depends on calorie requirements, which are determined by age, sex, and activity level. The 12 different USDA Food Patterns, which range from 1,000 calories to 3,200 calories, are designed to meet the needs of healthy individuals 2 years of age and older. To assess the potential contribution of school meals to recommended dietary patterns, USDA Food Patterns for 1,800, 2,000, and 2,400 calories were used as reference standards for elementary schools, middle schools, and high schools, respectively. These are the calorie levels used by the IOM in developing recommendations for revised nutrition standards for school meals (IOM 2010). The USDA Food Patterns for these three calorie levels are shown in Table D.3.

Table D.3. USDA Food Patterns Used to Assess Potential Contributions of School Meals to Recommended Dietary Patterns

	Elementary Schools	Middle Schools	High Schools
Calories	1,800	2,000	2,400
Vegetables (cups/day)	2.5	2.5	3
Dark green (cups/week)	1.5	1.5	2
Red and orange (cups/week)	5.5	5.5	6
Legumes (cups/week)	1.5	1.5	2
Starchy (cups/week)	5	5	6
Other (cups/week)	4	4	5
Fruits (cups)	1.5	2	2
Grains (oz)	6	6	8
Whole grains (oz)	3	3	4
Dairy (cups)	3	3	3
Protein Foods (oz)	5	5.5	6.5
Oils (tsp)	5	6	7
Calories from Solid Fats and Added Sugars (maximum limit)	160	260	330

Source: U.S. Department of Agriculture and U.S. Department of Health and Human Services 2010, Appendix 7, and www.Choosemyplate.com.

Note: Unless otherwise noted, recommendations are average daily amounts. Recommended food group amounts are reported in cup or ounce (oz) equivalents. See U.S. Department of Agriculture and U.S. Department of Health and Human Services 2010, Appendix 7, or www.Choosemyplate.com for information about quantity equivalents for each food group.

cup = cup equivalents; oz = ounce equivalents; tsp = teaspoons.

APPENDIX E

SUPPLEMENTAL TABLES FOR CHAPTER 5

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TABLES

Table E.1. Average Calorie and Nutrient Content of National School Lunch Program Lunches *Offered*

	Elementary Schools	Middle Schools	High Schools	All Schools
Average Amount				
Calories	726	785	843	761
Macronutrients				
Total fat (g)	26	28	31	27
Saturated fat (g)	8	9	9	8
Monounsaturated fat (g)	9	10	11	10
Polyunsaturated fat (g)	7	7	8	7
Linoleic acid (g)	6	6	7	6
Alpha-linolenic acid (g)	0.6	0.8	0.9	0.7
Carbohydrate (g)	97	104	112	102
Protein (g)	30	32	34	31
Vitamins				
Vitamin A (mcg RE)	453	457	455	454
Vitamin A (mcg RAE)	333	339	342	336
Vitamin C (mg)	32	37	40	34
Vitamin E (mg AT)	2.8	2.9	3.2	2.9
Vitamin B_6 (mg)	0.6	0.6	0.6	0.6
Vitamin B_{12} (mcg)	1.7	1.8	1.9	1.8
Folate (mcg DFE)	151	169	183	161
Niacin (mg)	6	7	8	7
Riboflavin (mg)	0.9	0.9	1.0	0.9
Thiamin (mg)	0.5	0.6	0.6	0.6
Minerals				
Calcium (mg)	529	552	565	540
Iron (mg)	4.4	4.9	5.2	4.7
Magnesium (mg)	107	112	117	110
Phosphorus (mg)	575	603	626	590
Potassium (mg)	1,145	1,216	1,269	1,183
Sodium (mg)	1,395	1,545	1,651	1,474
Zinc (mg)	3.9	4.1	4.2	4.0
Other Dietary Components				
Cholesterol (mg)	56	62	66	59
Dietary fiber (g)	7	8	9	8
Dietary fiber (g/1,000 calories)	10	10	10	10
Average Percentage of Calories from:				
Total fat	31.9	32.0	32.6	32.1
Saturated fat	10.0	10.0	10.0	10.0
Monounsaturated fat	11.3	11.2	11.3	11.3
Polyunsaturated fat	8.1	8.3	8.8	8.3
Linoleic acid	7.2	7.3	7.7	7.4
Alpha-linolenic acid	0.8	0.9	0.9	0.8
Carbohydrate	53.6	53.3	53.1	53.4
Protein	16.7	16.7	16.3	16.6
Number of Schools	**318**	**287**	**279**	**884**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents.

Table E.2. Average Calorie and Nutrient Content of National School Lunch Program Lunches *Offered*, Relative to SMI Nutrition Standards and Related Benchmarks

	Standard/ Recommendation	Elementary Schools	Middle Schools	High Schools	All Schools
Average Percentage of 1989 REA/RDA					
Calories	33%	36.9$^{\alpha}$	33.6	33.3$^{\gamma}$	35.6
Protein	33%	106.8$^{\alpha}$	72.2$^{\beta}$	67.9$^{\gamma}$	92.7
Vitamin A[a]	33%	70.0$^{\alpha}$	51.2	50.6$^{\gamma}$	62.7
Vitamin C	33%	69.7	74.5	69.1	70.4
Calcium	33%	63.5$^{\alpha}$	46.6	47.1$^{\gamma}$	57.1
Iron	33%	42.6$^{\alpha}$	36.7$^{\beta}$	38.7$^{\gamma}$	40.8
Average Percentage of Calories from:					
Total Fat	≤ 30%[b]	31.9	32.0	32.6	32.1
Saturated Fat	< 10%	10.0	10.0	10.0	10.0
Average Amount					
Cholesterol	< 100 mg[c,d]	56$^{\alpha}$	62$^{\beta}$	66$^{\gamma}$	59
Sodium	< 767 mg[c,d]	1,395$^{\alpha}$	1,545$^{\beta}$	1,651$^{\gamma}$	1,474
Dietary Fiber (g/1,000 calories)	14[c]	10	10	10	10
Number of Schools		**318**	**287**	**279**	**884**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).
[b]The 2010 *Dietary Guidelines for Americans* recommendation for the percentage of calories from total fat is 25–35%.
[c]Based on the 2010 *Dietary Guidelines for Americans.*
[d]Benchmarks are one–third of suggested maximum daily intake.

RDA = Recommended Dietary Allowances; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between elementary and middle schools is significantly different from zero at the .05 level.
[β]Difference between middle and high schools is significantly different from zero at the .05 level.
[γ]Difference between elementary and high schools is significantly different from zero at the .05 level.

Table E.3. Proportion of Schools *Offering* National School Lunch Program Lunches that Satisfied Each of the SMI Nutrition Standards and Related Benchmarks and Different Combinations of the Standards and Benchmarks

	Standard/ Recommendation	Elementary Schools	Middle Schools	High Schools	All Schools
SMI Nutrition Standards					
Calories	33% of 1989 REA	75.5$^{\alpha}$	46.5	46.8$^{\gamma}$	64.5
Protein	33% of 1989 RDA	>97	>97	>97	>97
Vitamin A[a]	33% of 1989 RDA	>97.0$^{\alpha}$	86.0	88.2$^{\gamma}$	93.5
Vitamin C	33% of 1989 RDA	82.7	88.3	90.4$^{\gamma}$	85.3
Calcium	33% of 1989 RDA	>97	>97	>97	>97
Iron	33% of 1989 RDA	92.7$^{\alpha}$	66.2$^{\beta}$	77.1$^{\gamma}$	84.8
Percentage of Calories from Total Fat	≤ 30%	35.1	36.3	32.9	34.9
Percentage of Calories from Saturated Fat	< 10%	49.6	52.3	56.0	51.4
Other Nutrition Benchmarks					
Percentage of Calories from Total Fat	25% – 35%[b]	70.2	71.4	70.2	70.4
Cholesterol	< 100 mg[b,c]	>97	>97	93$^{\gamma}$	98
Sodium	< 767 mg[b,c]	<3	<3	<3	<3
Dietary fiber (g/1,000 calories)	14[b]	3~	4~	4~	4
Combinations of Standards					
All SMI Standards		16.5	11.8	10.0$^{\gamma}$	14.3
SMI Standards for all RDA Nutrients[c]		76.1$^{\alpha}$	52.6$^{\beta}$	67.1$^{\gamma}$	70.1
SMI Standards for all RDA Nutrients[d] and SMI Standard for Saturated Fat		38.8	31.8$^{\beta}$	41.5	38.1
SMI Standards for all RDA Nutrients,[d] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		31.4	27.7	34.5	31.4
Updated Standards for all RDA Nutrients,[e] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		32.9	37.4$^{\beta}$	21.8$^{\gamma}$	31.4
Number of Schools		**318**	**287**	**279**	**884**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In Retinol equivalents (RE).
[b]Based on the 2010 *Dietary Guidelines* for Americans.
[c]Benchmarks are one-third of suggested maximum daily intake.

Table E.3 *(continued)*

[d]Includes protein, vitamin A, vitamin C, calcium and iron.
[e]Updated to reflect RDA values included in the Dietary Reference Intakes.

RDA = Recommended Dietary Allowances ; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between elementary and middle schools is significantly different from zero at the .05 level.
[β]Difference between middle and high schools is significantly different from zero at the .05 level.
[γ]Difference between elementary and high schools is significantly different from zero at the .05 level.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table E.4. Proportion of Schools Meeting SMI Nutrition Standards and Related Nutrition Benchmarks, and Distribution of Schools Not Meeting Standards, National School Lunch Program Lunches *Offered*

Percent Meeting/Below/Above Standard	Standard/ Recommendation	Percentage of Schools			
		Elementary Schools	Middle Schools	High Schools	All Schools
SMI Nutrition Standards					
Calories	33% of 1989 REA				
Percent Meeting Standard		75.5[α]	46.5	46.8[γ]	64.5
Percent Below Standard					
>0 to ≤5%		7.6	13.8	13.3	9.9
>5 to ≤10%		8.2	13.2	10.5	9.6
>10 to ≤15%		4.7	16.4	12.1	8.3
>15 to ≤20%		2.6~	6.3	9.3	4.6
>20%		1.3~	3.9~	7.9	3.1~
Vitamin A	33% of 1989 RDA				
Percent Meeting Standard		97.4[α]~	86.0	88.2[γ]	93.5
Percent Below Standard					
>0 to ≤5%		0.6~	2.6~	3.1~	1.5
>5 to ≤10%		1.0~	4.5	2.7	2.0~
>10 to ≤15%		1.0~	0.1~	0.5~	0.7~
>15 to ≤20%		0.0~	2.8~	1.0~	0.7~
>20 to ≤25%		0.0~	1.6~	1.5~	0.6~
>25%		0.0~	2.4~	3.0~	1.0~
Vitamin C	33% of 1989 RDA				
Percent Meeting Standard		82.7	88.3	90.4[γ]	85.3
Percent Below Standard					
>0 to ≤5%		3.0~	1.6~	0.9~	2.3
>5 to ≤10%		2.6~	2.5~	0.1~	2.0
>10 to ≤15%		2.2~	0.3~	2.9~	2.0
>15 to ≤20%		1.7~	1.6~	0.1~	1.3~
>20 to ≤25%		1.5~	1.0~	1.5~	1.4~
>25%		6.5	4.7~	4.0~	5.7
Iron	33% of 1989 RDA				
Percent Meeting Standard		92.7[α]	66.2[β]	77.1[γ]	84.8
Percent Below Standard					
>0 to ≤5%		3.4~	11.6	8.7	5.9
>5 to ≤10%		1.8~	10.6	8.4	4.7
>10 to ≤15%		1.3~	5.7	2.5~	2.3
>15%		0.8~	5.9	3.4~	2.2~
Percentage of Calories from Total Fat	≤ 30%				
Percent Meeting Standard		35.1	36.3	32.9	34.9
Percent Above Standard					
>0 to ≤5%		14.9	15.9	15.2	15.1
>5 to ≤10%		10.4	9.6	9.1	10.0
>10 to ≤15%		11.3	13.6	13.4	12.1
>15 to ≤20%		11.8	5.3	6.7	9.6
>20 to ≤25%		4.3	8.3	8.9	5.9
>25%		12.3	10.9	13.8	12.2

Table E.4 *(continued)*

Percent Meeting/Below/Above Standard	Standard/ Recommendation	Percentage of Schools			
		Elementary Schools	Middle Schools	High Schools	All Schools
Percentage of Calories from Saturated Fat	< 10%				
Percent Meeting Standard		49.6	52.3	56.0	51.4
Percent Above Standard					
>0 to ≤5%		17.3	17.1	11.2	16.0
>5 to ≤10%		13.7	9.9	10.6	12.4
>10 to ≤15%		7.8	7.3	11.6	8.5
>15 to ≤20%		2.5~	3.6~	3.8~	3.0
>20 to ≤25%		2.7~	6.3	3.5~	3.5
>25 to ≤50%		5.5	2.5~	2.2~	4.3
>50%		1.0~	1.0~	1.1~	1.0~
Other Nutrition Benchmarks					
Percentage of Calories from Total Fat	25% – 35%[a]				
Percent Meeting Standard		70.2	71.4	70.2	70.4
Percent Above Standard					
>0 to ≤5%		10.5	8.0	6.1	9.1
>5 to ≤10%		5.3	6.6	11.7	6.9
>10 to ≤15%		3.0~	4.0~	3.6~	3.3
>15%		5.0~	4.6~	5.4	5.0
Percent Below Standard					
>0 to ≤5%		3.4~	4.2~	2.3~	3.3
>5%		2.6~	1.1~	0.7~	1.9~
Sodium	< 767 mg[a,b]				
Percent Meeting Standard		0.0~	0.0~	0.0~	0.0~
Percent Above Standard					
>0 to ≤25%		4.0~	1.0~	1.0~	2.7~
>25 to ≤50%		15.0	4.7	3.6	10.9
>50%		81.1	94.4	95.5	86.4
Dietary Fiber (g/1,000 calories)	14[a]				
Percent Meeting Standard		3.4~	4.3~	3.8~	3.6
Percent Below Standard					
>0 to ≤5%		3.5~	2.8~	4.5~	3.6
>5 to ≤10%		4.2	4.2~	4.8	4.3
>10 to ≤15%		5.2	6.7	5.4	5.5
>15 to ≤20%		6.2	11.0	6.1	7.0
>20 to ≤25%		15.4	10.3	14.1	14.3
>25 to ≤50%		59.2	58.5	59.5	59.2
>50%		2.8~	2.2~	1.8~	2.5
Number of Schools		**318**	**287**	**279**	**884**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Protein, calcium, and cholesterol are not included in the table because virtually all schools met the relevant standard/benchmark.

[a]Based on the 2010 *Dietary Guidelines for Americans*.
[b]Benchmarks are one–third of suggested maximum daily intake

.

Table E.4 *(continued)*

RDA = Recommended Dietary Allowances; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between elementary and middle schools is significantly different from zero at the .05 level.
[β]Difference between middle and high schools is significantly different from zero at the .05 level.
[γ]Difference between elementary and high schools is significantly different from zero at the .05 level.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

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Table E.5. Average Calorie and Nutrient Content of National School Lunch Program Lunches *Served*

	Elementary Schools	Middle Schools	High Schools	All Schools
Average Amount				
Calories	661	683	730	679
Macronutrients				
Total fat (g)	23	25	27	24
Saturated fat (g)	7	8	8	8
Monounsaturated fat (g)	8	9	10	9
Polyunsaturated fat (g)	6	6	7	6
Linoleic acid (g)	5	5	6	5
Alpha-linolenic acid (g)	0.6	0.6	0.8	0.6
Carbohydrate (g)	88	89	94	89
Protein (g)	28	29	30	29
Vitamins				
Vitamin A (mcg RE)	351	309	336	340
Vitamin A (mcg RAE)	279	255	273	273
Vitamin C (mg)	23	23	25	23
Vitamin E (mg AT)	2.3	2.3	2.6	2.4
Vitamin B_6 (mg)	0.5	0.5	0.5	0.5
Vitamin B_{12} (mcg)	1.6	1.6	1.7	1.6
Folate (mcg DFE)	130	139	148	136
Niacin (mg)	6	6	7	6
Riboflavin (mg)	0.8	0.8	0.8	0.8
Thiamin (mg)	0.5	0.5	0.5	0.5
Minerals				
Calcium (mg)	481	470	489	481
Iron (mg)	4.2	4.4	4.7	4.3
Magnesium (mg)	96	95	100	97
Phosphorus (mg)	534	529	550	536
Potassium (mg)	1,018	1,003	1,067	1,025
Sodium (mg)	1,324	1,392	1,515	1,375
Zinc (mg)	3.6	3.7	3.8	3.7
Other Dietary Components				
Cholesterol (mg)	54	54	58	55
Dietary fiber (g)	6	6	7	6
Dietary fiber (g/1,000 calories)	9	9	9	9
Average Percentage of Calories from:				
Total fat	31.5	32.4	33.5	32.1
Saturated fat	10.1	10.2	10.3	10.1
Monounsaturated fat	11.2	11.5	11.8	11.4
Polyunsaturated fat	7.7	8.0	8.7	8.0
Linoleic acid	6.8	7.0	7.7	7.0
Alpha-linolenic acid	0.8	0.8	0.9	0.8
Carbohydrate	53.3	52.2	51.4	52.7
Protein	17.1	17.0	16.8	17.0
Number of Schools	**317**	**285**	**278**	**880**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents.

Table E.6. Average Calorie and Nutrient Content of National School Lunch Program Lunches *Served*, Relative to SMI Nutrition Standards and Related Benchmarks

	Standard/ Recommendation	Elementary Schools	Middle Schools	High Schools	All Schools
Average Percentage of 1989 REA/RDA					
Calories	33%	33.6$^{\alpha}$	29.2	28.9$^{\gamma}$	31.9
Protein	33%	100.0$^{\alpha}$	64.3$^{\beta}$	60.7$^{\gamma}$	85.6
Vitamin A[a]	33%	54.1$^{\alpha}$	34.6$^{\beta}$	37.3$^{\gamma}$	47.2
Vitamin C	33%	49.5	46.0	44.4$^{\gamma}$	47.9
Calcium	33%	57.7$^{\alpha}$	39.7	40.8$^{\gamma}$	51.1
Iron	33%	40.3$^{\alpha}$	33.2$^{\beta}$	34.5$^{\gamma}$	37.8
Average Percentage of Calories from:					
Total Fat	≤ 30%[b]	31.5$^{\alpha}$	32.4$^{\beta}$	33.5$^{\gamma}$	32.1
Saturated Fat	< 10%	10.1	10.2	10.3	10.1
Average Amount					
Cholesterol	< 100 mg[c,d]	54	54$^{\beta}$	58$^{\gamma}$	55
Sodium	< 767 mg[c,d]	1,324$^{\alpha}$	1,392$^{\beta}$	1,515$^{\gamma}$	1,375
Dietary Fiber (g/ 1,000 calories)	14[c]	9$^{\alpha}$	9	9$^{\gamma}$	9
Number of Schools		**317**	**285**	**278**	**880**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).
[b]The 2010 *Dietary Guidelines for Americans* recommendation for the percentage of calories from total fat is 25–35%.
[c]Based on the 2010 *Dietary Guidelines for Americans.*
[d]Benchmarks are one-third of suggested maximum daily intake.

RDA = Recommended Dietary Allowances; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between elementary and middle schools is significantly different from zero at the .05 level.
[β]Difference between middle and high schools is significantly different from zero at the .05 level.
[γ]Difference between elementary and high schools is significantly different from zero at the .05 level.

Table E.7. Proportion of Schools *Serving* National School Lunch Program Lunches that Satisfied Each of the SMI Nutrition Standards and Related Benchmarks and Different Combinations of the Standards and Benchmarks

	Standard/ Recommendation	Elementary Schools	Middle Schools	High Schools	All Schools
SMI Nutrition Standards					
Calories	33% of 1989 REA	49.2$^{\alpha}$	20.8	22.3$^{\gamma}$	38.7
Protein	33% of 1989 RDA	>97	>97	>97	>97
Vitamin A[a]	33% of 1989 RDA	89.5$^{\alpha}$	52.9	54.8$^{\gamma}$	75.9
Vitamin C	33% of 1989 RDA	70.7	63.4	62.4$^{\gamma}$	67.7
Calcium	33% of 1989 RDA	>97$^{\alpha}$	82.7	86.2$^{\gamma}$	93.8
Iron	33% of 1989 RDA	87.8$^{\alpha}$	47.0$^{\beta}$	60.2$^{\gamma}$	74.9
Percentage of Calories from Total Fat	≤ 30%	38.8$^{\alpha}$	30.1	23.3$^{\gamma}$	34.1
Percentage of Calories from Saturated Fat	< 10%	53.0	45.8	45.9	50.3
Other Nutrition Benchmarks					
Percentage of Calories from Total Fat	25% – 35%[b]	76.6	68.4	62.0$^{\gamma}$	72.2
Cholesterol	< 100 mg[b,c]	>97	>97	>97	>97
Sodium	< 767 mg[b,c]	<3	<3	<3	<3
Dietary fiber (g/1,000 calories)	14[b]	<3	<3	<3	<3
Combinations of Standards					
All SMI Standards		8.7$^{\alpha}$	3.6~	<3$^{\gamma}$	6.5
SMI Standards for all RDA Nutrients[c]		58.5$^{\alpha}$	17.6$^{\beta}$	29.3$^{\gamma}$	45.2
SMI Standards for all RDA Nutrients[d] and SMI Standard for Saturated Fat		29.9$^{\alpha}$	9.6	14.4$^{\gamma}$	23.1
SMI Standards for all RDA Nutrients,[d] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		24.3$^{\alpha}$	7.4	9.6$^{\gamma}$	18.3
Updated Standards for all RDA Nutrients,[e] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		23.2$^{\alpha}$	12.3$^{\beta}$	3.9$^{\gamma}$~	17.3
Number of Schools		**317**	**285**	**278**	**880**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).
[b]Based on the 2010 *Dietary Guidelines for Americans*.
[c]Benchmarks are one-third of suggested maximum daily intake.

Table E.7 *(continued)*

[d]Includes protein, vitamin A, vitamin C, calcium and iron.
[e]Updated to reflect RDA values included in the Dietary Reference Intakes.

RDA = Recommended Dietary Allowances; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between elementary and middle schools is significantly different from zero at the .05 level.
[β]Difference between middle and high schools is significantly different from zero at the .05 level.
[γ]Difference between elementary and high schools is significantly different from zero at the .05 level.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table E.8. Proportion of Schools Meeting SMI Nutrition Standards and Related Nutrition Benchmarks, and Distribution of Schools Not Meeting Standards, National School Lunch Program Lunches *Served*

Percent Meeting/Below/Above Standard	Standard/ Recommendation	Percentage of Schools			
		Elementary Schools	Middle Schools	High Schools	All Schools
SMI Nutrition Standards					
Calories	33% of 1989 REA				
Percent Meeting Standard		49.2[α]	20.8	22.3[γ]	38.7
Percent Below Standard					
>0 to ≤5%		14.9	9.9	6.0[γ]	12.2
>5 to ≤10%		14.5	13.5	9.7	13.4
>10 to ≤15%		9.7	14.2	12.3	11.0
>15 to ≤20%		4.7	13.4	15.6	8.5
>20 to ≤25%		3.3~	12.2	14.4	7.2
>25%		3.6~	16.1	19.6	9.1
Vitamin A	33% of 1989 RDA				
Percent Meeting Standard		89.5[α]	52.9	54.8[γ]	75.9
Percent Below Standard					
>0 to ≤5%		3.4~	4.9	5.4	4.1
>5 to ≤10%		3.3~	7.0	8.4	5.0
>10 to ≤15%		2.9~	6.2	5.2	3.9
>15 to ≤20%		0.0~	5.9	4.9	2.0
>20 to ≤25%		0.0~	7.5	7.2	2.8
>25 to ≤50%		1.0~	13.8	11.8	5.5
>50%		0.0~	1.9~	2.3~	0.8~
Vitamin C	33% of 1989 RDA				
Percent Meeting Standard		70.7	63.4	62.4[γ]	67.7
Percent Below Standard					
>0 to ≤5%		3.7~	3.9~	7.1	4.4
>5 to ≤10%		3.4~	3.9~	1.9~	3.2
>10 to ≤15%		1.7~	5.6	4.5~	3.0
>15 to ≤20%		5.0	3.1~	2.6~	4.2
>20 to ≤25%		2.5~	3.6~	2.6~	2.7
>25 to ≤50%		10.0	13.2	15.5	11.7
>50%		3.0~	3.4~	3.5~	3.1
Calcium	33% of 1989 RDA				
Percent Meeting Standard		99.6[α]~	82.7	86.2[γ]	93.8
Percent Below Standard					
>0 to ≤5%		0.0~	5.9	2.6~	1.6
>5 to ≤10%		0.2~	4.3~	4.5~	1.8
>10 to ≤15%		0.2~	3.9~	0.8~	1.0~
>15 to ≤20%		0.0~	1.0~	1.8~	0.6~
>20%		0.0~	2.2~	4.1~	1.2~
Iron	33% of 1989 RDA				
Percent Meeting Standard		87.8[α]	47.0[β]	60.2[γ]	74.9
Percent Below Standard					
>0 to ≤5%		5.4	11.5	12.5	8.0
>5 to ≤10%		2.2~	15.4	6.9	5.5
>10 to ≤15%		1.7~	9.0	7.1	4.1
>15 to ≤20%		1.2~	8.1	5.6	3.3
>20%		1.4~	8.9	7.7	4.2

Table E.8 *(continued)*

Percent Above/Below Standard	Standard/ Recommendation	Percentage of Schools: Elementary Schools	Middle Schools	High Schools	All Schools
Percentage of Calories from Total Fat	≤ 30%				
Percent Meeting Standard		38.8[α]	30.1	23.3[γ]	34.1
Percent Above Standard					
>0 to ≤5%		16.4	18.9	17.4	17.1
>5 to ≤10%		14.0	9.8	7.4	11.9
>10 to ≤15%		10.5	10.8	13.3	11.1
>15 to ≤20%		6.6	8.5	9.7	7.6
>20 to ≤25%		3.6~	9.2	9.6	5.8
>25%		10.0	12.8	19.3	12.4
Percentage of Calories from Saturated Fat	< 10%				
Percent Meeting Standard		53.0	45.8	45.9	50.3
Percent Above Standard					
>0 to ≤5%		11.6	13.5	13.1	12.3
>5 to ≤10%		14.1	11.5	13.6	13.5
>10 to ≤15%		7.0	12.0	6.7	7.8
>15 to ≤20%		5.0	7.8	10.5	6.7
>20 to ≤25%		2.8~	2.7~	6.0	3.4
>25%		6.5	6.7	4.2~	6.1
Other Nutrition Benchmarks					
Percentage of Calories from Total Fat	25% – 35%[a]				
Percent Meeting Standard		76.6	68.4	62.0[γ]	72.2
Percent Above Standard					
>0 to ≤5%		6.2	9.2	12.2	8.0
>5 to ≤10%		4.4	6.9	10.6	6.1
>10 to ≤15%		3.7~	4.9	6.8	4.6
>15 to ≤20%		0.6~	2.1~	4.9	1.8
>20 to ≤25%		0.6~	2.4~	1.1~	1.0~
>25%		2.0~	1.3~	1.4~	1.7
Percent Below Standard		5.9	4.9	1.1~	4.7
Sodium	< 767 mg[a,b]				
Percent Meeting Standard		1.0~	0.8~	0.3~	0.8~
Percent Above Standard					
>0 to ≤25%		5.2	1.8~	2.9~	4.1
>25 to ≤50%		20.8	16.2	9.0	17.6
>50%		72.9	81.2	87.9	77.5
Dietary Fiber (g/1,000 calories)	14[a]				
Percent Meeting Standard		1.4~	0.4~	0.3~	1.0~
Percent Below Standard					
>0 to ≤10%		2.3~	0.8~	1.6~	1.9
>5 to ≤10%		2.4~	1.2~	1.3~	2.0
>10 to ≤15%		2.0~	1.5~	1.4~	1.8
>15 to ≤20%		5.8	4.3~	4.2~	5.2
>20 to ≤25%		8.9	7.3	8.9	8.6
>25 to ≤50%		72.7	78.9	73.7	74.0
>50%		4.4	5.7	8.5	5.5
Number of Schools		**317**	**285**	**278**	**880**

Table E.8 *(continued)*

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]Based on the 2010 *Dietary Guidelines for Americans*.
[b]Benchmarks are one-third of suggested maximum daily intake.

RDA = Recommended Dietary Allowances; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between elementary and middle schools is significantly different from zero at the .05 level.
[β]Difference between middle and high schools is significantly different from zero at the .05 level.
[γ]Difference between elementary and high schools is significantly different from zero at the .05 level.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

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Table E.9. Average and Distribution of Calories and Nutrients in National School Lunch Program Lunches *Offered* to Students in Elementary Schools

			Percentiles						
	Average	SE	5th	10th	25th	50th	75th	90th	95th
Calories	726	7.3	563	584	651	713	785	869	948
Macronutrients									
Total fat (g)	26	0.4	17	18	21	26	29	34	38
Saturated fat (g)	8	0.1	5	6	7	8	9	11	11
Monounsaturated fat (g)	9	0.1	6	6	7	9	11	13	14
Polyunsaturated fat (g)	7	0.1	3	4	5	6	8	10	11
Linoleic acid (g)	6	0.1	3	3	4	6	7	8	9
Alpha–linolenic acid (g)	0.6	0.02	0.3	0.4	0.5	0.6	0.8	1.0	1.2
Carbohydrate (g)	97	1.2	72	78	86	94	106	120	131
Protein (g)	30	0.2	25	26	28	30	32	34	35
Vitamins									
Vitamin A (mcg RE)	453	12.6	234	260	322	417	535	643	796
Vitamin A (mcg RAE)	333	6.6	209	232	268	317	377	442	511
Vitamin C (mg)	32	1.1	11	13	18	28	41	54	62
Vitamin E (mg AT)	2.8	0.05	1.5	1.8	2.1	2.7	3.3	3.8	4.2
Vitamin B_6 (mg)	0.6	0.01	0.4	0.4	0.5	0.5	0.6	0.7	0.7
Vitamin B_{12} (mcg)	1.7	0.02	1.3	1.4	1.5	1.7	1.8	2.0	2.2
Folate (mcg)	122	1.6	88	92	105	118	136	156	169
Folate (mcg DFE)	151	2.3	103	111	128	146	169	194	220
Niacin (mg)	6	0.1	5	5	6	6	7	8	8
Riboflavin (mg)	0.9	0.01	0.8	0.8	0.8	0.9	0.9	1.0	1.0
Thiamin (mg)	0.5	0.01	0.4	0.4	0.5	0.5	0.6	0.7	0.7
Minerals									
Calcium (mg)	529	4.2	441	452	481	522	570	619	652
Iron (mg)	4.4	0.05	3.2	3.4	3.8	4.3	4.7	5.4	5.9
Magnesium (mg)	107	1.0	82	88	97	104	118	126	134
Phosphorus (mg)	575	3.8	487	499	534	572	608	649	668
Potassium (mg)	1,145	10.7	890	951	1,031	1,137	1,221	1,343	1,445
Sodium (mg)	1,395	17.8	976	1,088	1,191	1,371	1,512	1,763	1,946
Zinc (mg)	3.9	0.04	3.1	3.2	3.4	3.8	4.1	4.6	5.0
Other Components									
Cholesterol (mg)	56	1.0	34	37	45	54	64	75	86
Dietary fiber (g)	7	0.1	5	5	6	7	8	9	11

Table E.9 *(continued)*

	Average	SE	Percentiles						
			5th	10th	25th	50th	75th	90th	95th
Percentage of Calories from:									
Total fat	31.9	0.30	24.7	25.9	28.8	31.4	34.8	38.3	40.1
Saturated fat	10.0	0.10	7.7	8.3	9.0	10.0	10.8	11.6	13.0
Monosaturated fat	11.3	0.12	8.3	8.9	10.1	11.1	12.4	13.7	14.9
Polyunsaturated fat	8.1	0.13	5.2	5.5	6.5	7.8	9.5	11.2	12.0
Linoleic acid	7.2	0.12	4.6	4.8	5.8	7.0	8.4	10.0	10.8
Alpha-linolenic acid	0.8	0.02	0.5	0.5	0.6	0.7	0.9	1.2	1.3
Carbohydrate	53.6	0.30	44.7	47.4	50.6	53.9	56.6	59.4	61.2
Protein	16.7	0.11	13.6	14.6	15.4	16.6	17.8	19.2	19.9
Number of Schools	**318**								

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents; SE = Standard error.

Table E.10. Average and Distribution of Calories and Nutrients in National School Lunch Program Lunches *Offered* to Students in Middle Schools

			Percentiles						
	Average	SE	5th	10th	25th	50th	75th	90th	95th
Calories	785	9.7	633	652	691	759	840	957	1,014
Macronutrients									
Total fat (g)	28	0.6	19	20	23	26	31	37	41
Saturated fat (g)	9	0.1	6	7	7	8	10	11	12
Monounsaturated fat (g)	10	0.2	7	7	8	9	11	13	14
Polyunsaturated fat (g)	7	0.3	4	4	6	7	8	10	12
Linoleic acid (g)	6	0.2	3	4	5	6	7	9	11
Alpha-linolenic acid (g)	0.8	0.03	0.4	0.4	0.5	0.7	0.9	1.1	1.3
Carbohydrate (g)	104	1.4	78	83	91	102	115	127	136
Protein (g)	32	0.3	28	28	30	32	34	37	39
Vitamins									
Vitamin A (mcg RE)	457	11.4	236	273	334	444	531	664	759
Vitamin A (mcg RAE)	339	6.0	221	247	278	331	389	451	479
Vitamin C (mg)	37	1.6	12	15	22	35	46	62	72
Vitamin E (mg AT)	2.9	0.08	1.8	1.9	2.3	2.7	3.3	4.0	4.4
Vitamin B_6 (mg)	0.6	0.01	0.5	0.5	0.5	0.6	0.6	0.7	0.8
Vitamin B_{12} (mcg)	1.8	0.03	1.5	1.5	1.7	1.8	1.9	2.1	2.2
Folate (mcg)	135	2.2	99	103	117	130	148	166	188
Folate (mcg DFE)	169	3.1	118	125	145	162	184	211	236
Niacin (mg)	7	0.1	5	6	6	7	8	9	9
Riboflavin (mg)	0.9	0.01	0.8	0.8	0.9	0.9	1.0	1.1	1.1
Thiamin (mg)	0.6	0.01	0.4	0.5	0.5	0.6	0.7	0.7	0.8
Minerals									
Calcium (mg)	552	5.1	459	481	504	541	583	629	684
Iron (mg)	4.9	0.07	3.7	3.9	4.2	4.8	5.3	5.8	6.6
Magnesium (mg)	112	1.2	90	93	100	110	120	132	143
Phosphorus (mg)	603	5.3	519	536	551	592	635	666	738
Potassium (mg)	1,216	13.4	983	1,029	1,097	1,186	1,280	1,420	1,577
Sodium (mg)	1,545	24.6	1,123	1,190	1,317	1,485	1,680	1,896	2,124
Zinc (mg)	4.1	0.05	3.4	3.5	3.7	4.0	4.4	4.8	5.5
Other Components									
Cholesterol (mg)	62	1.1	42	46	52	61	71	82	87
Dietary fiber (g)	8	0.1	6	6	7	8	9	10	11

Table E.10 *(continued)*

	Average	SE	Percentiles						
			5th	10th	25th	50th	75th	90th	95th
Percentage of Calories from:									
Total fat	32.0	0.40	24.7	26.4	28.5	31.2	34.3	38.2	40.0
Saturated fat	10.0	0.11	8.0	8.3	9.0	9.9	10.8	12.0	12.2
Monosaturated fat	11.2	0.15	8.4	9.0	10.0	10.9	12.2	13.6	14.9
Polyunsaturated fat	8.3	0.19	5.0	5.6	6.8	7.8	9.3	10.8	12.8
Linoleic acid	7.3	0.17	4.5	5.0	6.0	6.9	8.2	9.5	11.4
Alpha-linolenic acid	0.9	0.02	0.5	0.5	0.7	0.8	1.0	1.2	1.4
Carbohydrate	53.3	0.40	44.2	47.4	50.2	53.3	56.5	59.7	60.4
Protein	16.7	0.13	13.7	14.3	15.7	16.8	17.9	18.7	19.5
Number of Schools	**287**								

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents; SE = Standard error.

Table E.11. Average and Distribution of Calories and Nutrients in National School Lunch Program Lunches *Offered* to Students in High Schools

			Percentiles						
	Average	SE	5th	10th	25th	50th	75th	90th	95th
Calories	843	12.5	632	673	734	820	932	1,041	1,106
Macronutrients									
Total fat (g)	31	0.6	20	22	25	29	35	41	46
Saturated fat (g)	9	0.2	7	7	8	9	10	12	14
Monounsaturated fat (g)	11	0.2	7	7	9	10	12	14	15
Polyunsaturated fat (g)	8	0.2	4	5	6	8	10	12	14
Linoleic acid (g)	7	0.2	4	4	6	7	9	11	12
Alpha-linolenic acid (g)	0.9	0.03	0.4	0.5	0.6	0.8	1.0	1.4	1.7
Carbohydrate (g)	112	1.8	82	86	95	109	126	144	149
Protein (g)	34	0.4	28	29	31	33	35	39	41
Vitamins									
Vitamin A (mcg RE)	455	11.9	245	286	342	430	546	661	776
Vitamin A (mcg RAE)	342	6.4	233	250	281	331	387	450	522
Vitamin C (mg)	40	1.7	15	19	26	35	47	67	80
Vitamin E (mg AT)	3.2	0.07	1.8	2.1	2.5	3.1	3.7	4.3	4.9
Vitamin B_6 (mg)	0.6	0.01	0.5	0.5	0.6	0.6	0.7	0.8	0.9
Vitamin B_{12} (mcg)	1.9	0.08	1.5	1.6	1.7	1.8	2.0	2.1	2.5
Folate (mcg)	146	2.5	103	111	124	142	159	178	199
Folate (mcg DFE)	183	3.7	126	135	152	175	203	237	258
Niacin (mg)	8	0.1	6	6	7	7	8	9	10
Riboflavin (mg)	1.0	0.01	0.8	0.8	0.9	0.9	1.0	1.1	1.2
Thiamin (mg)	0.6	0.01	0.4	0.5	0.5	0.6	0.7	0.8	0.8
Minerals									
Calcium (mg)	565	5.9	464	475	510	558	615	651	682
Iron (mg)	5.2	0.08	3.9	4.1	4.5	5.0	5.7	6.6	6.7
Magnesium (mg)	117	1.8	90	94	102	115	128	141	148
Phosphorus (mg)	626	8.6	524	541	572	614	661	736	781
Potassium (mg)	1,269	19.8	975	1,014	1,128	1,237	1,361	1,524	1,649
Sodium (mg)	1,651	30.8	1,162	1,262	1,413	1,598	1,832	2,070	2,377
Zinc (mg)	4.2	0.07	3.3	3.5	3.8	4.1	4.5	5.1	5.7
Other Components									
Cholesterol (mg)	66	1.6	44	48	55	64	72	85	105
Dietary fiber (g)	9	0.2	6	6	7	8	10	11	12

Table E.11 *(continued)*

	Average	SE	Percentiles						
			5th	10th	25th	50th	75th	90th	95th
Percentage of Calories from:									
Total fat	32.6	0.34	25.8	27.2	29.7	31.8	35.6	38.1	40.6
Saturated fat	10.0	0.10	7.9	8.3	9.0	9.8	10.8	11.5	12.3
Monosaturated fat	11.3	0.14	8.7	9.2	10.2	11.2	12.2	13.6	14.7
Polyunsaturated fat	8.8	0.17	5.5	6.1	7.0	8.5	9.9	12.0	13.7
Linoleic acid	7.7	0.15	4.8	5.4	6.2	7.5	8.8	10.5	12.1
Alpha-linolenic acid	0.9	0.02	0.5	0.6	0.7	0.9	1.1	1.3	1.5
Carbohydrate	53.1	0.33	44.9	46.6	50.4	53.3	56.2	58.5	60.8
Protein	16.3	0.14	13.2	14.0	15.1	16.2	17.4	18.6	19.5
Number of Schools	**279**								

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents; SE = Standard error.

Table E.12. Average and Distribution of Calories and Nutrients in National School Lunch Program Lunches *Offered* to Students in All Schools

			Percentiles						
	Average	SE	5th	10th	25th	50th	75th	90th	95th
Calories	761	6.8	576	606	667	738	825	937	1,018
Macronutrients									
Total fat (g)	27	0.4	18	19	22	26	31	37	40
Saturated fat (g)	8	0.1	6	6	7	8	10	11	12
Monounsaturated fat (g)	10	0.1	6	7	8	9	11	13	14
Polyunsaturated fat (g)	7	0.1	4	4	5	7	8	10	12
Linoleic acid (g)	6	0.1	3	4	5	6	7	9	11
Alpha–linolenic acid (g)	0.7	0.02	0.3	0.4	0.5	0.7	0.9	1.1	1.3
Carbohydrate (g)	102	1.0	74	80	88	98	112	127	141
Protein (g)	31	0.2	26	26	28	31	33	36	38
Vitamins									
Vitamin A (mcg RE)	454	9.4	235	272	329	420	536	657	787
Vitamin A (mcg RAE)	336	4.9	214	237	274	321	379	450	513
Vitamin C (mg)	34	1.0	11	14	20	32	43	58	72
Vitamin E (mg AT)	2.9	0.05	1.7	1.8	2.2	2.8	3.4	3.9	4.4
Vitamin B_6 (mg)	0.6	0.01	0.4	0.5	0.5	0.6	0.6	0.7	0.8
Vitamin B_{12} (mcg)	1.8	0.02	1.4	1.5	1.6	1.7	1.9	2.1	2.2
Folate (mcg)	129	1.4	90	97	109	125	143	166	180
Folate (mcg DFE)	161	2.0	107	117	134	154	178	212	230
Niacin (mg)	7	0.1	5	5	6	7	8	8	9
Riboflavin (mg)	0.9	0.01	0.8	0.8	0.8	0.9	1.0	1.0	1.1
Thiamin (mg)	0.6	0.01	0.4	0.4	0.5	0.5	0.6	0.7	0.8
Minerals									
Calcium (mg)	540	3.4	446	460	490	531	579	632	656
Iron (mg)	4.7	0.05	3.4	3.6	4.1	4.5	5.1	5.8	6.3
Magnesium (mg)	110	0.9	85	90	98	108	120	132	140
Phosphorus (mg)	590	3.6	494	511	543	582	627	665	715
Potassium (mg)	1,183	9.6	918	977	1,060	1,161	1,275	1,404	1,531
Sodium (mg)	1,474	16.4	1,061	1,121	1,258	1,430	1,638	1,882	2,057
Zinc (mg)	4.0	0.04	3.2	3.3	3.5	3.9	4.3	4.8	5.2
Other Components									
Cholesterol (mg)	59	0.8	36	40	48	57	67	78	89
Dietary fiber (g)	8	0.1	5	5	6	7	9	10	11

Table E.12 *(continued)*

	Average	SE	Percentiles						
			5th	10th	25th	50th	75th	90th	95th
Percentage of Calories from:									
Total fat	32.1	0.25	25.0	26.4	28.9	31.5	34.8	38.3	40.3
Saturated fat	10.0	0.08	7.8	8.3	9.0	9.9	10.8	11.7	12.6
Monosaturated fat	11.3	0.09	8.4	9.0	10.1	11.1	12.4	13.7	14.9
Polyunsaturated fat	8.3	0.12	5.2	5.6	6.6	8.0	9.6	11.3	12.5
Linoleic acid	7.4	0.10	4.6	4.9	5.9	7.0	8.5	10.1	11.0
Alpha-linolenic acid	0.8	0.02	0.5	0.5	0.6	0.8	1.0	1.2	1.3
Carbohydrate	53.4	0.25	44.8	47.4	50.5	53.7	56.5	59.4	60.9
Protein	16.6	0.09	13.6	14.4	15.4	16.6	17.7	19.1	19.8
Number of Schools	**884**								

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents; SE = Standard error.

Table E.13. Average and Distribution of Calories and Nutrients in National School Lunch Program Lunches *Served* to Students in Elementary Schools

			Percentiles						
	Average	SE	5th	10th	25th	50th	75th	90th	95th
Calories	661	6.5	505	533	587	654	721	793	846
Macronutrients									
Total fat (g)	23	0.4	16	17	19	22	26	31	34
Saturated fat (g)	7	0.1	5	5	6	7	9	10	11
Monounsaturated fat (g)	8	0.1	5	6	7	8	9	11	13
Polyunsaturated fat (g)	6	0.1	3	3	4	5	7	9	9
Linoleic acid (g)	5	0.1	3	3	4	5	6	8	8
Alpha-linolenic acid (g)	0.6	0.02	0.3	0.3	0.4	0.5	0.7	0.9	1.0
Carbohydrate (g)	88	0.9	66	70	78	87	96	103	112
Protein (g)	28	0.2	23	24	26	27	30	33	35
Vitamins									
Vitamin A (mcg RE)	351	7.3	197	214	263	329	421	511	581
Vitamin A (mcg RAE)	279	4.2	183	204	233	270	314	375	406
Vitamin C (mg)	23	0.8	9	11	14	21	27	37	45
Vitamin E (mg AT)	2.3	0.04	1.4	1.5	1.8	2.1	2.7	3.2	3.6
Vitamin B_6 (mg)	0.5	0.01	0.4	0.4	0.4	0.5	0.5	0.6	0.6
Vitamin B_{12} (mcg)	1.6	0.02	1.2	1.3	1.4	1.6	1.8	2.0	2.1
Folate (mcg)	104	1.2	73	80	90	103	115	126	134
Folate (mcg DFE)	130	1.6	90	98	112	129	146	162	173
Niacin (mg)	6	0.1	5	5	5	6	6	7	8
Riboflavin (mg)	0.8	0.01	0.6	0.7	0.7	0.8	0.9	0.9	1.0
Thiamin (mg)	0.5	0.01	0.3	0.4	0.4	0.5	0.5	0.6	0.7
Minerals									
Calcium (mg)	481	4.9	365	400	439	475	521	563	606
Iron (mg)	4.2	0.04	3.1	3.3	3.7	4.1	4.6	5.0	5.3
Magnesium (mg)	96	0.9	75	80	86	93	106	116	121
Phosphorus (mg)	534	4.6	422	458	490	519	572	629	654
Potassium (mg)	1,018	9.9	785	827	908	1,004	1,112	1,202	1,250
Sodium (mg)	1,324	17.3	943	1,004	1,129	1,302	1,447	1,728	1,885
Zinc (mg)	3.6	0.04	2.8	2.9	3.2	3.6	3.9	4.6	5.0
Other Components									
Cholesterol (mg)	54	0.9	36	39	44	51	60	68	78
Dietary fiber (g)	6	0.1	4	5	5	6	7	8	9

Table E.13 *(continued)*

	Average	SE	Percentiles						
			5th	10th	25th	50th	75th	90th	95th
Percentage of Calories from:									
Total fat	31.5	0.29	24.4	26.3	28.9	31.1	33.6	37.2	39.2
Saturated fat	10.1	0.10	7.9	8.3	9.0	9.9	10.8	11.8	12.7
Monosaturated fat	11.2	0.10	8.7	9.3	10.1	11.1	12.0	13.1	14.0
Polyunsaturated fat	7.7	0.14	4.9	5.3	6.2	7.4	8.7	10.5	11.7
Linoleic acid	6.8	0.12	4.3	4.7	5.5	6.5	7.7	9.4	10.4
Alpha-linolenic acid	0.8	0.02	0.5	0.5	0.6	0.7	0.9	1.1	1.3
Carbohydrate	53.3	0.29	45.2	47.8	50.7	53.5	56.2	58.8	59.8
Protein	17.1	0.10	14.4	15.3	16.0	17.1	18.2	19.3	20.0
Number of Schools	**317**								

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents; SE = Standard error.

Table E.14. Average and Distribution of Calories and Nutrients in National School Lunch Program Lunches *Served* to Students in Middle Schools

			Percentiles						
	Average	SE	5th	10th	25th	50th	75th	90th	95th
Calories	683	9.4	486	529	607	681	750	841	892
Macronutrients									
Total fat (g)	25	0.5	16	18	21	24	28	33	37
Saturated fat (g)	8	0.1	5	6	6	7	9	10	11
Monounsaturated fat (g)	9	0.2	6	6	7	8	10	12	13
Polyunsaturated fat (g)	6	0.2	4	4	5	6	7	9	11
Linoleic acid (g)	5	0.2	3	3	4	5	6	8	9
Alpha-linolenic acid (g)	0.6	0.02	0.3	0.4	0.5	0.6	0.8	1.0	1.2
Carbohydrate (g)	89	1.3	60	69	77	88	100	111	117
Protein (g)	29	0.3	22	24	26	29	31	34	35
Vitamins									
Vitamin A (mcg RE)	309	6.8	194	210	244	302	352	413	492
Vitamin A (mcg RAE)	255	4.1	172	189	214	253	290	327	361
Vitamin C (mg)	23	1.0	9	11	14	20	28	42	49
Vitamin E (mg AT)	2.3	0.06	1.4	1.5	1.8	2.2	2.7	3.3	3.8
Vitamin B_6 (mg)	0.5	0.01	0.3	0.4	0.4	0.5	0.6	0.6	0.7
Vitamin B_{12} (mcg)	1.6	0.03	1.0	1.1	1.3	1.5	1.8	2.0	2.1
Folate (mcg)	109	1.5	81	87	96	105	121	134	145
Folate (mcg DFE)	139	2.0	101	108	122	133	156	172	185
Niacin (mg)	6	0.1	5	5	6	6	7	8	8
Riboflavin (mg)	0.8	0.01	0.6	0.6	0.7	0.8	0.9	1.0	1.0
Thiamin (mg)	0.5	0.01	0.4	0.4	0.4	0.5	0.6	0.6	0.7
Minerals									
Calcium (mg)	470	6.4	344	372	414	465	522	567	616
Iron (mg)	4.4	0.06	3.4	3.6	3.9	4.3	4.8	5.4	5.7
Magnesium (mg)	95	1.3	71	76	84	93	107	118	122
Phosphorus (mg)	529	6.6	398	420	479	523	578	635	665
Potassium (mg)	1,003	12.9	717	789	888	987	1,110	1,232	1,303
Sodium (mg)	1,392	22.2	978	1,027	1,181	1,371	1,554	1,790	1,993
Zinc (mg)	3.7	0.06	2.7	2.9	3.2	3.6	4.0	4.7	5.0
Other Components									
Cholesterol (mg)	54	0.9	37	42	46	53	61	69	75
Dietary fiber (g)	6	0.1	4	5	5	6	7	8	9

Table E.14 *(continued)*

	Average	SE	Percentiles						
			5th	10th	25th	50th	75th	90th	95th
Percentage of Calories from:									
Total fat	32.4	0.39	25.0	26.6	29.3	31.7	35.5	38.7	40.9
Saturated fat	10.2	0.12	8.0	8.4	9.2	10.1	11.1	11.8	12.7
Monosaturated fat	11.5	0.14	8.9	9.3	10.3	11.3	12.5	13.5	14.7
Polyunsaturated fat	8.0	0.18	4.9	5.4	6.3	7.5	9.4	10.8	11.7
Linoleic acid	7.0	0.16	4.3	4.8	5.5	6.6	8.3	9.5	10.2
Alpha-linolenic acid	0.8	0.02	0.5	0.5	0.6	0.8	1.0	1.2	1.4
Carbohydrate	52.2	0.36	44.2	46.0	49.0	52.7	55.3	57.9	59.4
Protein	17.0	0.13	14.2	14.9	15.8	17.0	18.2	19.1	19.9
Number of Schools	**285**								

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents; SE = Standard error.

Table E.15. Average and Distribution of Calories and Nutrients in National School Lunch Program Lunches *Served* to Students in High Schools

			Percentiles						
	Average	SE	5th	10th	25th	50th	75th	90th	95th
Calories	730	10.7	517	557	654	712	825	923	963
Macronutrients									
Total fat (g)	27	0.5	18	19	22	26	32	37	40
Saturated fat (g)	8	0.2	6	6	7	8	9	11	12
Monounsaturated fat (g)	10	0.2	6	7	8	9	11	13	14
Polyunsaturated fat (g)	7	0.2	3	4	5	7	8	11	12
Linoleic acid (g)	6	0.2	3	4	5	6	7	10	10
Alpha-linolenic acid (g)	0.8	0.02	0.3	0.4	0.6	0.7	0.9	1.2	1.4
Carbohydrate (g)	94	1.5	65	71	83	91	105	121	127
Protein (g)	30	0.4	24	25	28	30	32	36	40
Vitamins									
Vitamin A (mcg RE)	336	9.7	183	206	248	306	391	494	634
Vitamin A (mcg RAE)	273	5.9	165	187	220	260	318	372	419
Vitamin C (mg)	25	1.0	10	12	16	22	31	44	54
Vitamin E (mg AT)	2.6	0.07	1.3	1.6	2.1	2.6	3.0	3.8	4.1
Vitamin B_6 (mg)	0.5	0.01	0.4	0.4	0.5	0.5	0.6	0.7	0.7
Vitamin B_{12} (mcg)	1.7	0.06	1.1	1.2	1.4	1.6	1.8	2.1	2.5
Folate (mcg)	116	1.6	84	88	101	113	131	143	155
Folate (mcg DFE)	148	2.2	103	110	126	146	167	184	206
Niacin (mg)	7	0.1	5	5	6	7	7	8	9
Riboflavin (mg)	0.8	0.01	0.6	0.7	0.7	0.8	0.9	1.0	1.1
Thiamin (mg)	0.5	0.01	0.4	0.4	0.5	0.5	0.6	0.7	0.7
Minerals									
Calcium (mg)	489	8.5	327	373	428	482	545	637	659
Iron (mg)	4.7	0.06	3.4	3.7	4.2	4.6	5.1	5.8	6.0
Magnesium (mg)	100	1.5	74	80	87	97	112	123	130
Phosphorus (mg)	550	8.2	406	434	488	541	606	674	705
Potassium (mg)	1,067	21.4	735	806	929	1,044	1,198	1,324	1,434
Sodium (mg)	1,515	25.4	1,001	1,124	1,267	1,466	1,738	1,984	2,064
Zinc (mg)	3.8	0.06	2.8	2.9	3.2	3.7	4.1	4.9	5.1
Other Components									
Cholesterol (mg)	58	1.2	39	43	49	56	65	76	82
Dietary fiber (g)	7	0.1	4	5	6	6	8	9	9

Table E.15 *(continued)*

	Average	SE	Percentiles						
			5th	10th	25th	50th	75th	90th	95th
Percentage of Calories from:									
Total fat	33.5	0.34	26.6	28.3	30.3	33.3	36.6	39.1	41.2
Saturated fat	10.3	0.10	8.1	8.7	9.3	10.1	11.2	12.0	12.3
Monosaturated fat	11.8	0.14	8.9	9.5	10.6	11.8	12.8	13.9	14.8
Polyunsaturated fat	8.7	0.19	5.4	5.9	6.9	8.3	10.1	12.4	13.0
Linoleic acid	7.7	0.17	4.7	5.2	6.0	7.2	9.0	11.0	11.4
Alpha-linolenic acid	0.9	0.02	0.5	0.6	0.7	0.9	1.1	1.4	1.5
Carbohydrate	51.4	0.29	45.4	46.3	48.6	51.5	54.0	55.9	58.4
Protein	16.8	0.15	13.3	14.2	15.5	17.0	18.0	19.0	20.0
Number of Schools	**278**								

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents; SE = Standard error.

Table E.16. Average and Distribution of Calories and Nutrients in National School Lunch Program Lunches *Served* to Students in All Schools

			Percentiles						
	Average	SE	5th	10th	25th	50th	75th	90th	95th
Calories	679	5.8	511	538	599	665	738	832	905
Macronutrients									
Total fat (g)	24	0.3	16	18	20	23	28	33	37
Saturated fat (g)	8	0.1	5	6	6	7	9	10	11
Monounsaturated fat (g)	9	0.1	5	6	7	8	10	12	13
Polyunsaturated fat (g)	6	0.1	3	4	5	6	7	9	11
Linoleic acid (g)	5	0.1	3	3	4	5	6	8	10
Alpha-linolenic acid (g)	0.6	0.01	0.3	0.3	0.4	0.6	0.7	1.0	1.2
Carbohydrate (g)	89	0.8	66	70	79	88	98	110	118
Protein (g)	29	0.2	23	24	26	28	31	34	36
Vitamins									
Vitamin A (mcg RE)	340	5.6	193	210	256	320	404	496	581
Vitamin A (mcg RAE)	273	3.2	176	198	227	264	311	362	404
Vitamin C (mg)	23	0.6	9	11	14	21	28	39	47
Vitamin E (mg AT)	2.4	0.04	1.4	1.5	1.8	2.2	2.8	3.3	3.8
Vitamin B_6 (mg)	0.5	0.00	0.4	0.4	0.4	0.5	0.6	0.6	0.7
Vitamin B_{12} (mcg)	1.6	0.02	1.1	1.2	1.4	1.6	1.8	2.0	2.1
Folate (mcg)	107	1.0	77	82	93	106	120	133	144
Folate (mcg DFE)	136	1.3	94	101	115	133	152	170	184
Niacin (mg)	6	0.1	5	5	5	6	7	7	8
Riboflavin (mg)	0.8	0.01	0.6	0.7	0.7	0.8	0.9	1.0	1.0
Thiamin (mg)	0.5	0.01	0.3	0.4	0.4	0.5	0.6	0.6	0.7
Minerals									
Calcium (mg)	481	3.9	355	390	435	475	525	570	637
Iron (mg)	4.3	0.04	3.2	3.4	3.8	4.2	4.7	5.2	5.7
Magnesium (mg)	97	0.8	74	79	86	94	107	119	124
Phosphorus (mg)	536	3.9	413	447	489	524	578	636	668
Potassium (mg)	1,025	9.0	771	810	906	1,013	1,124	1,233	1,314
Sodium (mg)	1,375	15.0	957	1,023	1,168	1,340	1,523	1,808	1,987
Zinc (mg)	3.7	0.04	2.8	2.9	3.2	3.6	4.0	4.6	5.0
Other Components									
Cholesterol (mg)	55	0.7	37	40	46	52	61	71	78
Dietary fiber (g)	6	0.1	4	5	5	6	7	8	9

Table E.16 *(continued)*

	Average	SE	Percentiles						
			5th	10th	25th	50th	75th	90th	95th
Percentage of Calories from:									
Total fat	32.1	0.24	25.1	26.6	29.2	31.4	34.7	38.2	40.0
Saturated fat	10.1	0.08	8.0	8.4	9.1	10.0	11.0	11.9	12.7
Monosaturated fat	11.4	0.08	8.7	9.3	10.3	11.2	12.3	13.5	14.4
Polyunsaturated fat	8.0	0.12	5.0	5.4	6.4	7.6	9.3	11.2	12.4
Linoleic acid	7.0	0.10	4.4	4.8	5.6	6.7	8.1	9.8	11.0
Alpha-linolenic acid	0.8	0.01	0.5	0.5	0.6	0.7	1.0	1.2	1.4
Carbohydrate	52.7	0.23	45.2	47.0	50.0	53.0	55.6	58.5	59.6
Protein	17.0	0.09	14.2	15.0	15.8	17.0	18.1	19.2	19.9
Number of Schools	**880**								

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents; SE = Standard error.

Table E.17. Average and Distribution of Nutrients per 1,000 Calories in National School Lunch Program Lunches *Offered* to Students in Elementary Schools

			Reference Standard[a]		Percentiles per 1,000 Calories						
	Average per 1,000 Calories	SE	Ages 4 – 8 Males/ Females	Ages 9 – 13 Males/ Females	5th	10th	25th	50th	75th	90th	95th
Macronutrients											
Total fat (g)	35	0.3	n.a.	n.a.	27	29	32	35	39	43	45
Saturated fat (g)	11	0.1	n.a.	n.a.	9	9	10	11	12	13	14
Monounsaturated fat (g)	13	0.1	n.a.	n.a.	9	10	11	12	14	15	17
Polyunsaturated fat (g)	9	0.1	n.a.	n.a.	6	6	7	9	11	12	13
Linoleic acid (g)[b]	8	0.1	6	6	5	5	6	8	9	11	12
Alpha-linolenic acid (g)[b]	0.9	0.02	0.5	0.6	0.5	0.6	0.7	0.8	1.0	1.3	1.5
Carbohydrate (g)[c]	134	0.8	76	68	112	119	126	135	141	148	153
Protein (g)[c]	42	0.3	11	18	34	36	38	42	45	48	50
Vitamins											
Vitamin A (mcg RE)[c]	625	14.9	n.a.	n.a.	321	365	454	580	733	931	1,037
Vitamin A (mcg RAE)[c]	462	7.8	235	316	291	323	377	445	521	619	680
Vitamin C (mg)[c]	44	1.4	15	24	15	18	25	40	58	74	85
Vitamin E (mg AT)[c]	3.8	0.06	4	6	2.5	2.7	3.1	3.7	4.3	5.0	5.5
Vitamin B_6 (mg)[c]	0.8	0.01	0.4	0.5	0.6	0.6	0.7	0.8	0.8	0.9	1.0
Vitamin B_{12} (mcg)[c]	2.4	0.03	0.7	0.9	1.8	1.9	2.1	2.3	2.6	3.0	3.2
Folate (mcg)[c]	169	1.7	n.a.	n.a.	129	137	150	168	181	195	205
Folate (mcg DFE)[c]	208	2.5	118	158	157	164	184	206	227	244	257
Niacin (mg)[c]	9	0.1	5	6	7	7	8	9	10	11	11
Riboflavin (mg)[c]	1.2	0.01	0.4	0.5	1.0	1.1	1.1	1.2	1.3	1.4	1.4
Thiamin (mg)[c]	0.7	0.01	0.4	0.5	0.6	0.6	0.6	0.7	0.8	0.9	0.9
Minerals											
Calcium (mg)[c]	739	6.5	588	684	581	614	664	730	807	873	915
Iron (mg)[c]	6.1	0.05	6	4	5.1	5.2	5.5	6.0	6.5	6.9	7.4
Magnesium (mg)[c]	149	1.3	76	126	123	128	137	148	158	170	184
Phosphorus (mg)[c]	801	5.5	294	658	662	693	742	794	862	914	956
Potassium (mg)[b]	1,590	10.9	2235	2368	1,293	1,347	1,476	1,590	1,709	1,809	1,867
Sodium (mg)[d]	1,930	19.3	< 1118	< 1158	1,475	1,574	1,690	1,918	2,099	2,314	2,477
Zinc (mg)[c]	5.4	0.05	3	4	4.4	4.6	4.8	5.2	5.8	6.4	7.0
Other Components											
Cholesterol (mg)[e]	78	1.3	< 176	< 158	48	52	64	74	88	100	118
Dietary fiber (g)[f]	10	0.1	14	14	7	8	9	10	11	13	14
Number of Schools	**318**										

Table E.17 *(continued)*

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]The "per 1,000 calorie" reference standards are based on Dietary Reference Intakes and assume a 1,700 calorie diet for 4–8 year olds and a 1,900 calorie diet for 9–13 year olds. These calorie levels represent weighted averages for each age group, assuming an active level of physical activity for 4–8 year olds and a moderately active level of physical activity for 9–13 year olds (IOM 2010).
[b]Reference standards is based on the Adequate Intake (AI), Institute of Medicine, IOM. Dietary Reference intakes: The essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006.
[c]Reference standard is based on the Recommended Dietary Allowance (RDA), IOM. Dietary Reference intakes: The essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006.
[d]Reference standard is based on the Upper Limit (UL), *Dietary Guidelines*, 2010 recommendation
[e]Reference standard is based on the *Dietary Guidelines*, 2010 recommendation
[f]Reference standard is based on the *Dietary Guidelines*, 2005 recommendation.

n.a. = Not applicable; AT = Alpha–tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents; SE = Standard error.

Table E.18. Average and Distribution of Nutrients per 1,000 Calories in National School Lunch Program Lunches *Offered* to Students in Middle Schools

	Average per 1,000 Calories	SE	Reference Standard[a] Ages 9 – 13 Males/ Females	Percentiles per 1,000 Calories 5th	10th	25th	50th	75th	90th	95th
Macronutrients										
Total fat (g)	36	0.4	n.a.	27	29	32	35	38	42	44
Saturated fat (g)	11	0.1	n.a.	9	9	10	11	12	13	14
Monounsaturated fat (g)	12	0.2	n.a.	9	10	11	12	14	15	17
Polyunsaturated fat (g)	9	0.2	n.a.	6	6	8	9	10	12	14
Linoleic acid (g)[b]	8	0.2	6	5	6	7	8	9	11	13
Alpha-linolenic acid (g)[b]	1.0	0.03	0.6	0.5	0.6	0.7	0.9	1.1	1.3	1.5
Carbohydrate (g)[c]	133	1.0	68	111	118	126	133	141	149	151
Protein (g)[c]	42	0.3	18	34	36	39	42	45	47	49
Vitamins										
Vitamin A (mcg RE)[c]	590	15.3	n.a.	316	358	437	549	692	885	1,063
Vitamin A (mcg RAE)[c]	439	8.1	316	292	308	354	421	499	597	682
Vitamin C (mg)[c]	48	2.1	24	16	21	29	44	61	79	93
Vitamin E (mg AT)[c]	3.6	0.07	6	2.6	2.7	3.0	3.5	4.1	4.6	5.4
Vitamin B_6 (mg)[c]	0.8	0.01	0.5	0.6	0.6	0.7	0.8	0.8	0.9	0.9
Vitamin B_{12} (mcg)[c]	2.4	0.03	0.9	1.7	1.9	2.1	2.3	2.6	2.8	3.1
Folate (mcg)[c]	173	2.0	n.a.	133	143	155	170	187	208	215
Folate (mcg DFE)[c]	215	2.7	158	163	172	189	210	235	255	265
Niacin (mg)[c]	9	0.1	6	7	8	8	9	10	11	11
Riboflavin (mg)[c]	1.2	0.01	0.5	1.0	1.1	1.1	1.2	1.3	1.3	1.4
Thiamin (mg)[c]	0.8	0.01	0.5	0.6	0.6	0.7	0.7	0.8	0.9	0.9
Minerals										
Calcium (mg)[c]	713	6.9	684	556	599	641	710	776	836	876
Iron (mg)[c]	6.3	0.05	4	5.3	5.5	5.8	6.2	6.7	7.1	7.3
Magnesium (mg)[c]	143	1.2	126	118	122	131	143	156	166	172
Phosphorus (mg)[c]	779	6.1	658	634	668	728	779	827	889	921
Potassium (mg)[b]	1,564	14.4	2368	1,247	1,348	1,436	1,548	1,699	1,790	1,856
Sodium (mg)[d]	1,970	18.8	< 1158	1,584	1,653	1,794	1,953	2,130	2,331	2,411
Zinc (mg)[c]	5.3	0.06	4	4.2	4.5	4.9	5.3	5.6	6.2	6.9
Other Components										
Cholesterol (mg)[e]	80	1.4	< 158	57	60	66	78	92	102	112
Dietary fiber (g)[f]	10	0.1	14	7	8	9	10	11	13	14
Number of Schools	**287**									

Table E.18 *(continued)*

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]The "per 1,000 calorie" reference standards are based on Dietary Reference Intakes and assume a 1,900 calorie diet for 9–13 year olds. These calorie levels represent weighted averages for each age group, assuming a moderately active level of physical activity for 9–13 year olds (IOM 2010). Reference standards were the same for males and females ages 9–13 with the exception of Linoleic acid and Alpha–linolenic acid, in which case the average was used.
[b]Reference standards is based on the Adequate Intake (AI), Institute of Medicine, IOM. Dietary Reference intakes: The essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006.
[c]Reference standard is based on the Recommended Dietary Allowance (RDA), IOM. Dietary Reference intakes: The essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006.
[d]Reference standard is based on the Upper Limit (UL), *Dietary Guidelines*, 2010 recommendation
[e]Reference standard is based on the *Dietary Guidelines*, 2010 recommendation
[f]Reference standard is based on the *Dietary Guidelines*, 2005 recommendation.

n.a. = Not applicable; AT = Alpha–tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents; SE = Standard error.

Table E.19. Average and Distribution of Nutrients per 1,000 Calories in National School Lunch Program Lunches *Offered* to Students in High Schools

			Reference Standard[a]		Percentiles per 1,000 Calories						
	Average per 1,000 Calories	SE	Ages 14 – 18 Males	Ages 14 – 18 Females	5th	10th	25th	50th	75th	90th	95th
Macronutrients											
Total fat (g)	36	0.4	n.a.	n.a.	29	30	33	35	40	42	45
Saturated fat (g)	11	0.1	n.a.	n.a.	9	9	10	11	12	13	14
Monounsaturated fat (g)	13	0.2	n.a.	n.a.	10	10	11	12	14	15	16
Polyunsaturated fat (g)	10	0.2	n.a.	n.a.	6	7	8	9	11	13	15
Linoleic acid (g)[b]	9	0.2	6	6	5	6	7	8	10	12	13
Alpha-linolenic acid (g)[b]	1.0	0.03	0.6	0.6	0.6	0.6	0.8	1.0	1.2	1.5	1.6
Carbohydrate (g)[c]	133	0.8	50	65	112	116	126	133	141	146	152
Protein (g)[c]	41	0.4	20	23	33	35	38	41	43	46	49
Vitamins											
Vitamin A (mcg RE)[c]	548	15.8	n.a.	n.a.	318	344	408	505	640	800	964
Vitamin A (mcg RAE)[c]	412	8.5	346	350	275	303	340	384	465	541	655
Vitamin C (mg)[c]	47	1.7	29	33	18	23	33	43	57	75	90
Vitamin E (mg AT)[c]	3.8	0.06	6	8	2.7	2.8	3.1	3.6	4.2	4.8	5.3
Vitamin B_6 (mg)[c]	0.8	0.01	0.5	0.6	0.6	0.6	0.7	0.8	0.8	0.9	1.0
Vitamin B_{12} (mcg)[c]	2.3	0.06	0.9	1.2	1.7	1.8	2.0	2.2	2.5	2.9	3.1
Folate (mcg)[c]	173	2.2	n.a.	n.a.	133	141	154	171	189	205	215
Folate (mcg DFE)[c]	217	3.2	154	200	160	170	192	215	238	266	276
Niacin (mg)[c]	9	0.1	6	7	7	7	8	9	10	11	11
Riboflavin (mg)[c]	1.2	0.01	0.5	0.5	1.0	1.0	1.1	1.2	1.2	1.3	1.4
Thiamin (mg)[c]	0.8	0.01	0.5	0.5	0.6	0.6	0.7	0.8	0.8	0.9	1.0
Minerals											
Calcium (mg)[c]	681	6.3	500	650	554	571	617	673	728	806	844
Iron (mg)[c]	6.2	0.05	4	8	5.1	5.4	5.8	6.1	6.6	7.1	7.5
Magnesium (mg)[c]	140	1.6	158	180	111	117	126	138	151	166	176
Phosphorus (mg)[c]	752	6.4	481	625	619	648	692	744	806	861	895
Potassium (mg)[b]	1,521	16.3	1808	2350	1,212	1,244	1,380	1,531	1,654	1,731	1,829
Sodium (mg)[d]	1,963	21.4	< 885	< 1150	1,566	1,671	1,778	1,941	2,127	2,307	2,415
Zinc (mg)[c]	5.1	0.06	4	5	4.0	4.3	4.6	5.0	5.5	6.0	6.5
Other Components											
Cholesterol (mg)[e]	79	1.3	< 115	<150	54	58	67	76	90	100	111
Dietary fiber (g)[f]	10	0.2	14	14	7	8	9	10	11	13	14
Number of Schools	279										

Table E.19 *(continued)*

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]The "per 1,000 calorie" reference standards are based on Dietary Reference Intakes and assume a 2,600 calorie diet for 14–18 year old males and a 2,000 calorie diet for 14–18 year old females. These calorie levels represent weighted averages for each age group, assuming a moderately active level of physical activity for all 14–18 year olds (IOM 2010).
[b]Reference standards is based on the Adequate Intake (AI), Institute of Medicine, IOM. Dietary Reference intakes: The essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006.
[c]Reference standard is based on the Recommended Dietary Allowance (RDA), IOM. Dietary Reference intakes: The essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006.
[d]Reference standard is based on the Upper Limit (UL), *Dietary Guidelines*, 2010 recommendation
[e]Reference standard is based on the Dietary *Guidelines*, 2010 recommendation
[f]Reference standard is based on the *Dietary Guidelines*, 2005 recommendation.

n.a. = Not applicable; AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents; SE = Standard error.

Table E.20. Average and Distribution of Nutrients per 1,000 Calories in National School Lunch Program Lunches *Offered* to Students in All Schools

			Reference Standard[a]				Percentiles per 1,000 Calories						
	Average per 1,000 Calories	SE	Ages 4 – 8 Males/ Females	Ages 9 – 13 Males/ Females	Ages 14 – 18 Males	Ages 14 – 18 Females	5th	10th	25th	50th	75th	90th	95th
Macronutrients													
Total fat (g)	36	0.3	n.a.	n.a.	n.a.	n.a.	28	29	32	35	39	43	45
Saturated fat (g)	11	0.1	n.a.	n.a.	n.a.	n.a.	9	9	10	11	12	13	14
Monounsaturated fat (g)	13	0.1	n.a.	n.a.	n.a.	n.a.	9	10	11	12	14	15	17
Polyunsaturated fat (g)	9	0.1	n.a.	n.a.	n.a.	n.a.	6	6	7	9	11	13	14
Linoleic acid (g)[b]	8	0.1	6	6	6	6	5	5	7	8	9	11	12
Alpha-linolenic acid (g)[b]	0.9	0.02	0.5	0.6	0.6	0.6	0.5	0.6	0.7	0.9	1.1	1.4	1.5
Carbohydrate (g)[c]	134	0.6	76	68	50	65	112	118	126	134	141	148	152
Protein (g)[c]	42	0.2	11	18	20	23	34	36	38	42	44	48	49
Vitamins													
Vitamin A (mcg RE)[c]	603	11.6	n.a.	n.a.	n.a.	n.a.	320	360	437	564	713	879	1,029
Vitamin A (mcg RAE)[c]	447	6.1	235	316	346	350	289	313	359	427	508	602	670
Vitamin C (mg)[c]	45	1.2	15	24	29	33	15	20	27	41	58	76	87
Vitamin E (mg AT)[c]	3.7	0.05	4	6	6	8	2.5	2.7	3.1	3.6	4.2	5.0	5.4
Vitamin B_6 (mg)[c]	0.8	0.01	0.4	0.5	0.5	0.6	0.6	0.6	0.7	0.8	0.8	0.9	1.0
Vitamin B_{12} (mcg)[c]	2.4	0.03	0.7	0.9	0.9	1.2	1.7	1.9	2.1	2.3	2.6	2.9	3.2
Folate (mcg)[c]	170	1.4	n.a.	n.a.	n.a.	n.a.	130	140	152	169	184	198	213
Folate (mcg DFE)[c]	211	2.0	118	158	154	200	159	168	187	208	230	254	266
Niacin (mg)[c]	9	0.1	5	6	6	7	7	7	8	9	10	11	11
Riboflavin (mg)[c]	1.2	0.01	0.4	0.5	0.5	0.5	1.0	1.1	1.1	1.2	1.3	1.4	1.4
Thiamin (mg)[c]	0.7	0.01	0.4	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.9	0.9
Minerals													
Calcium (mg)[c]	723	5.0	588	684	500	650	573	604	649	710	789	860	905
Iron (mg)[c]	6.1	0.04	6	4	4	8	5.1	5.3	5.6	6.1	6.5	7.0	7.4
Magnesium (mg)[c]	146	1.0	76	126	158	180	119	124	134	145	157	169	181
Phosphorus (mg)[c]	787	4.5	294	658	481	625	643	679	728	780	843	905	931
Potassium (mg)[b]	1,571	9.0	2235	2368	1808	2350	1,268	1,333	1,453	1,573	1,699	1,798	1,851
Sodium (mg)[d]	1,944	15.0	< 1118	< 1158	< 885	< 1150	1,498	1,606	1,731	1,932	2,103	2,317	2,460
Zinc (mg)[c]	5.3	0.04	3	4	4	5	4.3	4.5	4.8	5.2	5.7	6.3	6.9
Other Components													
Cholesterol (mg)[e]	78	1.0	< 176	< 158	< 115	<150	50	56	65	75	89	101	114
Dietary fiber (g)[f]	10	0.1	14	14	14	14	7	8	9	10	11	13	14
Number of Schools	**884**												

Table E.20 *(continued)*

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]The "per 1,000 calorie" reference standards are based on Dietary Reference Intakes and assume a 2,600 calorie diet for 14–18 year old males and a 2,000 calorie diet for 14–18 year old females. These calorie levels represent weighted averages for each age group, assuming a moderately active level of physical activity for all 14–18 year olds (IOM 2010).
[b]Reference standards is based on the Adequate Intake (AI), Institute of Medicine, IOM. Dietary Reference intakes: The essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006.
[c]Reference standard is based on the Recommended Dietary Allowance (RDA), IOM. Dietary Reference intakes: The essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006.
[d]Reference standard is based on the Upper Limit (UL), *Dietary Guidelines*, 2010 recommendation
[e]Reference standard is based on the *Dietary Guidelines*, 2010 recommendation
[f]Reference standard is based on the *Dietary Guidelines*, 2005 recommendation.

n.a. = Not applicable; AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents; SE = Standard error.

Table E.21. Average and Distribution of Nutrients per 1,000 Calories in National School Lunch Program Lunches *Served* to Students in Elementary Schools

	Average per 1,000 Calories	SE	Reference Standard[a] Ages 4 – 8 Males/ Females	Reference Standard[a] Ages 9 – 13 Males/ Females	Percentiles per 1,000 Calories 5th	10th	25th	50th	75th	90th	95th
Macronutrients											
Total fat (g)	35	0.3	n.a.	n.a.	27	29	32	35	37	41	44
Saturated fat (g)	11	0.1	n.a.	n.a.	9	9	10	11	12	13	14
Monounsaturated fat (g)	12	0.1	n.a.	n.a.	10	10	11	12	13	15	16
Polyunsaturated fat (g)	9	0.2	n.a.	n.a.	5	6	7	8	10	12	13
Linoleic acid (g)[b]	8	0.1	6	6	5	5	6	7	9	10	12
Alpha-linolenic acid (g)[b]	0.9	0.02	0.5	0.6	0.5	0.6	0.6	0.8	1.0	1.3	1.4
Carbohydrate (g)[c]	133	0.7	76	68	113	119	127	134	140	147	149
Protein (g)[c]	43	0.3	11	18	36	38	40	43	46	48	50
Vitamins											
Vitamin A (mcg RE)[c]	533	10.1	n.a.	n.a.	331	352	407	502	638	766	819
Vitamin A (mcg RAE)[c]	424	5.6	235	316	302	320	360	408	472	544	575
Vitamin C (mg)[c]	34	1.1	15	24	13	16	23	30	43	57	64
Vitamin E (mg AT)[c]	3.4	0.05	4	6	2.3	2.5	2.9	3.4	3.9	4.3	4.7
Vitamin B_6 (mg)[c]	0.7	0.01	0.4	0.5	0.6	0.6	0.7	0.7	0.8	0.9	0.9
Vitamin B_{12} (mcg)[c]	2.4	0.03	0.7	0.9	1.9	1.9	2.2	2.4	2.7	3.0	3.2
Folate (mcg)[c]	158	1.4	n.a.	n.a.	124	130	143	155	172	186	196
Folate (mcg DFE)[c]	198	2.0	118	158	151	160	177	196	217	238	252
Niacin (mg)[c]	9	0.1	5	6	7	8	8	9	10	10	11
Riboflavin (mg)[c]	1.2	0.01	0.4	0.5	1.1	1.1	1.1	1.2	1.3	1.4	1.4
Thiamin (mg)[c]	0.7	0.01	0.4	0.5	0.6	0.6	0.7	0.7	0.8	0.9	0.9
Minerals											
Calcium (mg)[c]	735	6.1	588	684	590	616	669	728	801	856	893
Iron (mg)[c]	6.3	0.04	6	4	5.2	5.5	5.9	6.3	6.7	7.1	7.3
Magnesium (mg)[c]	147	1.1	76	126	122	127	137	146	157	168	174
Phosphorus (mg)[c]	815	5.2	294	658	667	712	762	821	869	918	947
Potassium (mg)[b]	1,549	9.7	2235	2368	1,271	1,347	1,454	1,547	1,651	1,732	1,788
Sodium (mg)[d]	2,003	16.6	< 1118	< 1158	1,610	1,688	1,818	1,960	2,158	2,383	2,481
Zinc (mg)[c]	5.5	0.05	3	4	4.4	4.7	5.1	5.4	6.0	6.4	7.0
Other Components											
Cholesterol (mg)[e]	82	1.2	< 176	< 158	59	63	70	78	88	104	115
Dietary fiber (g)[f]	9	0.1	14	14	7	8	8	9	10	12	13
Number of Schools	**317**										

Table E.21 *(continued)*

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]The "per 1,000 calorie" reference standards are based on Dietary Reference Intakes and assume a 1,700 calorie diet for 4–8 year olds and a 1,900 calorie diet for 9–13 year olds. These calorie levels represent weighted averages for each age group, assuming an active level of physical activity for 4–8 year olds and a moderately active level of physical activity for 9–13 year olds (IOM 2010).
[b]Reference standards is based on the Adequate Intake (AI), Institute of Medicine, IOM. Dietary Reference intakes: The essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006.
[c]Reference standard is based on the Recommended Dietary Allowance (RDA), IOM. Dietary Reference intakes: The essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006.
[d]Reference standard is based on the Upper Limit (UL), *Dietary Guidelines*, 2010 recommendation
[e]Reference standard is based on the *Dietary Guidelines*, 2010 recommendation
[f]Reference standard is based on the *Dietary Guidelines*, 2005 recommendation.

n.a. = Not applicable; AT = Alpha–tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents; SE = Standard error.

Table E.22. Average and Distribution of Nutrients per 1,000 Calories in National School Lunch Program Lunches *Served* to Students in Middle Schools

	Average per 1,000 Calories	SE	Reference Standard[a] Ages 9 – 13 Males/ Females	Percentiles per 1,000 Calories 5th	10th	25th	50th	75th	90th	95th
Macronutrients										
Total fat (g)	36	0.4	n.a.	28	30	33	35	39	43	45
Saturated fat (g)	11	0.1	n.a.	9	9	10	11	12	13	14
Monounsaturated fat (g)	13	0.2	n.a.	10	10	11	13	14	15	16
Polyunsaturated fat (g)	9	0.2	n.a.	5	6	7	8	10	12	13
Linoleic acid (g)[b]	8	0.2	6	5	5	6	7	9	11	11
Alpha-linolenic acid (g)[b]	0.9	0.02	0.6	0.5	0.6	0.7	0.9	1.1	1.4	1.5
Carbohydrate (g)[c]	130	0.9	68	111	115	123	132	138	145	149
Protein (g)[c]	43	0.3	18	36	37	40	43	45	48	50
Vitamins										
Vitamin A (mcg RE)[c]	457	10.7	n.a.	280	314	359	432	515	656	704
Vitamin A (mcg RAE)[c]	378	6.2	316	263	285	325	374	419	492	518
Vitamin C (mg)[c]	34	1.8	24	13	14	21	30	44	56	70
Vitamin E (mg AT)[c]	3.4	0.06	6	2.4	2.5	2.9	3.3	3.8	4.4	4.7
Vitamin B_6 (mg)[c]	0.7	0.01	0.5	0.6	0.6	0.7	0.7	0.8	0.9	0.9
Vitamin B_{12} (mcg)[c]	2.3	0.03	0.9	1.6	1.8	2.0	2.3	2.6	2.9	3.0
Folate (mcg)[c]	160	1.8	n.a.	128	134	142	158	173	190	204
Folate (mcg DFE)[c]	205	2.4	158	160	169	180	204	224	249	261
Niacin (mg)[c]	9	0.1	6	7	8	9	9	10	11	11
Riboflavin (mg)[c]	1.2	0.01	0.5	0.9	1.0	1.1	1.2	1.3	1.3	1.4
Thiamin (mg)[c]	0.8	0.01	0.5	0.6	0.6	0.7	0.8	0.8	0.9	0.9
Minerals										
Calcium (mg)[c]	696	7.4	684	520	557	632	697	756	822	872
Iron (mg)[c]	6.5	0.05	4	5.5	5.6	6.1	6.5	7.0	7.4	7.7
Magnesium (mg)[c]	141	1.4	126	113	119	127	140	152	165	175
Phosphorus (mg)[c]	783	6.3	658	636	668	722	782	831	901	928
Potassium (mg)[b]	1,479	15.3	2368	1,200	1,238	1,344	1,468	1,601	1,713	1,818
Sodium (mg)[d]	2,041	17.2	< 1158	1,638	1,750	1,880	2,023	2,213	2,373	2,435
Zinc (mg)[c]	5.4	0.06	4	4.2	4.6	4.9	5.3	5.8	6.4	6.9
Other Components										
Cholesterol (mg)[e]	80	1.0	< 158	58	64	71	79	88	99	108
Dietary fiber (g)[f]	9	0.1	14	7	7	8	9	10	11	12
Number of Schools	**285**									

Table E.22 *(continued)*

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]The "per 1,000 calorie" reference standards are based on Dietary Reference Intakes and assume a 1,900 calorie diet for 9–13 year olds. These calorie levels represent weighted averages for each age group, assuming a moderately active level of physical activity for 9–13 year olds (IOM 2010). Reference standards were the same for males and females ages 9–13 with the exception of Linoleic acid and Alpha–linolenic acid, in which case the average was used.
[b]Reference standards is based on the Adequate Intake (AI), Institute of Medicine, IOM. Dietary Reference intakes: The essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006.
[c]Reference standard is based on the Recommended Dietary Allowance (RDA), IOM. Dietary Reference intakes: The essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006.
[d]Reference standard is based on the Upper Limit (UL), *Dietary Guidelines*, 2010 recommendation
[e]Reference standard is based on the *Dietary Guidelines*, 2010 recommendation
[f]Reference standard is based on the *Dietary Guidelines*, 2005 recommendation.

n.a. = Not applicable; AT = Alpha–tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents; SE = Standard error.

Table E.23. Average and Distribution of Nutrients per 1,000 Calories in National School Lunch Program Lunches *Served* to Students in High Schools

			Reference Standard[a]		Percentiles per 1,000 Calories						
	Average per 1,000 Calories	SE	Ages 14 – 18 Males	Ages 14 – 18 Females	5th	10th	25th	50th	75th	90th	95th
Macronutrients											
Total fat (g)	37	0.4	n.a.	n.a.	30	31	34	37	41	43	46
Saturated fat (g)	11	0.1	n.a.	n.a.	9	10	10	11	12	13	14
Monounsaturated fat (g)	13	0.2	n.a.	n.a.	10	11	12	13	14	15	16
Polyunsaturated fat (g)	10	0.2	n.a.	n.a.	6	7	8	9	11	14	14
Linoleic acid (g)[b]	9	0.2	6	6	5	6	7	8	10	12	13
Alpha-linolenic acid (g)[b]	1.0	0.02	0.6	0.6	0.6	0.6	0.8	1.0	1.2	1.5	1.7
Carbohydrate (g)[c]	129	0.7	50	65	114	116	121	129	135	140	146
Protein (g)[c]	42	0.4	20	23	33	36	39	42	45	48	50
Vitamins											
Vitamin A (mcg RE)[c]	461	11.9	n.a.	n.a.	285	307	359	412	531	691	734
Vitamin A (mcg RAE)[c]	376	6.8	346	350	248	284	315	363	422	490	542
Vitamin C (mg)[c]	35	1.2	29	33	15	17	23	30	43	53	66
Vitamin E (mg AT)[c]	3.6	0.07	6	8	2.2	2.5	3.1	3.5	4.0	4.6	4.9
Vitamin B_6 (mg)[c]	0.7	0.01	0.5	0.6	0.6	0.6	0.7	0.7	0.8	0.9	1.0
Vitamin B_{12} (mcg)[c]	2.3	0.06	0.9	1.2	1.5	1.7	1.9	2.2	2.5	3.0	3.2
Folate (mcg)[c]	161	2.0	n.a.	n.a.	119	130	143	160	178	192	199
Folate (mcg DFE)[c]	205	2.9	154	200	151	161	181	204	226	249	270
Niacin (mg)[c]	9	0.1	6	7	7	8	8	9	10	11	11
Riboflavin (mg)[c]	1.2	0.01	0.5	0.5	0.9	1.0	1.1	1.1	1.3	1.3	1.4
Thiamin (mg)[c]	0.8	0.01	0.5	0.5	0.6	0.6	0.7	0.8	0.8	0.9	0.9
Minerals											
Calcium (mg)[c]	678	11.0	500	650	479	535	610	667	742	816	928
Iron (mg)[c]	6.4	0.05	4	8	5.4	5.6	6.0	6.4	6.8	7.3	7.6
Magnesium (mg)[c]	138	1.4	158	180	108	117	126	137	148	161	172
Phosphorus (mg)[c]	761	8.3	481	625	582	620	701	763	822	889	943
Potassium (mg)[b]	1,468	17.7	1808	2350	1,155	1,210	1,313	1,455	1,599	1,727	1,802
Sodium (mg)[d]	2,074	19.7	< 885	< 1150	1,638	1,785	1,910	2,072	2,211	2,393	2,499
Zinc (mg)[c]	5.2	0.06	4	5	4.0	4.3	4.7	5.1	5.6	6.3	6.7
Other Components											
Cholesterol (mg)[e]	80	1.0	< 115	<150	60	63	72	79	88	99	102
Dietary fiber (g)[f]	9	0.1	14	14	7	7	8	9	10	11	12
Number of Schools	**278**										

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Table E.23 *(continued)*

[a]The "per 1,000 calorie" reference standards are based on Dietary Reference Intakes and assume a 2,600 calorie diet for 14–18 year old males and a 2,000 calorie diet for 14–18 year old females. These calorie levels represent weighted averages for each age group, assuming a moderately active level of physical activity for all 14–18 year olds (IOM 2010).
[b]Reference standards is based on the Adequate Intake (AI), Institute of Medicine, IOM. Dietary Reference intakes: The essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006.
[c]Reference standard is based on the Recommended Dietary Allowance (RDA), IOM. Dietary Reference intakes: The essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006.
[d]Reference standard is based on the Upper Limit (UL), *Dietary Guidelines*, 2010 recommendation
[e]Reference standard is based on the *Dietary Guidelines*, 2010 recommendation
[f]Reference standard is based on the *Dietary Guidelines*, 2005 recommendation.

n.a. = Not applicable; AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents; SE = Standard error.

Table E.24. Average and Distribution of Nutrients per 1,000 Calories in National School Lunch Program Lunches *Served* to Students in All Schools

			Reference Standard[a]				Percentiles per 1,000 Calories						
	Average per 1,000 Calories	SE	Ages 4 – 8 Males/ Females	Ages 9 – 13 Males/ Females	Ages 14 – 18 Males	Ages 14 – 18 Females	5th	10th	25th	50th	75th	90th	95th
Macronutrients													
Total fat (g)	36	0.3	n.a.	n.a.	n.a.	n.a.	28	30	32	35	39	42	44
Saturated fat (g)	11	0.1	n.a.	n.a.	n.a.	n.a.	9	9	10	11	12	13	14
Monounsaturated fat (g)	13	0.1	n.a.	n.a.	n.a.	n.a.	10	10	11	12	14	15	16
Polyunsaturated fat (g)	9	0.1	n.a.	n.a.	n.a.	n.a.	6	6	7	8	10	12	14
Linoleic acid (g)[b]	8	0.1	6	6	6	6	5	5	6	7	9	11	12
Alpha-linolenic acid (g)[b]	0.9	0.02	0.5	0.6	0.6	0.6	0.5	0.6	0.7	0.8	1.1	1.4	1.6
Carbohydrate (g)[c]	132	0.6	76	68	50	65	113	118	125	133	139	146	149
Protein (g)[c]	43	0.2	11	18	20	23	36	37	40	42	45	48	50
Vitamins													
Vitamin A (mcg RE)[c]	504	7.7	n.a.	n.a.	n.a.	n.a.	314	336	383	469	595	731	814
Vitamin A (mcg RAE)[c]	406	4.4	235	316	346	350	285	302	344	393	461	524	564
Vitamin C (mg)[c]	34	0.9	15	24	29	33	13	16	22	30	44	56	66
Vitamin E (mg AT)[c]	3.5	0.04	4	6	6	8	2.3	2.5	2.9	3.4	3.9	4.4	4.8
Vitamin B_6 (mg)[c]	0.7	0.01	0.4	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.8	0.9	0.9
Vitamin B_{12} (mcg)[c]	2.4	0.02	0.7	0.9	0.9	1.2	1.7	1.9	2.1	2.4	2.6	2.9	3.2
Folate (mcg)[c]	159	1.1	n.a.	n.a.	n.a.	n.a.	124	130	143	156	173	188	198
Folate (mcg DFE)[c]	201	1.6	118	158	154	200	151	163	178	198	220	243	256
Niacin (mg)[c]	9	0.1	5	6	6	7	7	8	8	9	10	11	11
Riboflavin (mg)[c]	1.2	0.01	0.4	0.5	0.5	0.5	1.0	1.0	1.1	1.2	1.3	1.4	1.4
Thiamin (mg)[c]	0.7	0.01	0.4	0.5	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.9	0.9
Minerals													
Calcium (mg)[c]	716	5.2	588	684	500	650	555	591	649	713	781	846	892
Iron (mg)[c]	6.4	0.03	6	4	4	8	5.3	5.5	5.9	6.3	6.8	7.2	7.5
Magnesium (mg)[c]	144	0.9	76	126	158	180	117	123	132	143	154	166	174
Phosphorus (mg)[c]	798	4.5	294	658	481	625	640	682	740	800	853	914	944
Potassium (mg)[b]	1,520	8.8	2235	2368	1808	2350	1,217	1,277	1,414	1,522	1,634	1,728	1,789
Sodium (mg)[d]	2,024	13.2	< 1118	< 1158	< 885	< 1150	1,623	1,712	1,844	2,006	2,176	2,381	2,478
Zinc (mg)[c]	5.5	0.04	3	4	4	5	4.3	4.6	5.0	5.3	5.9	6.4	6.9
Other Components													
Cholesterol (mg)[e]	81	0.9	< 176	< 158	< 115	<150	59	63	70	78	88	102	112
Dietary fiber (g)[f]	9	0.1	14	14	14	14	7	7	8	9	10	11	12
Number of Schools	**880**												

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Table E.24 *(continued)*

[a]The "per 1,000 calorie" reference standards are based on Dietary Reference Intakes and assume a 1,700 calorie diet for 4–8 year olds, a 1,900 calorie diet for 9–13 year olds, a 2,600 calorie diet for 14–18 year old males and a 2,000 calorie diet for 14–18 year old females. These calorie levels represent weighted averages for each age group, assuming an active level of physical activity for 4–8 year olds and a moderately active level of physical activity for 9–13 and 14–18 year olds (IOM 2010).
[b]Reference standards is based on the Adequate Intake (AI), Institute of Medicine, IOM. Dietary Reference intakes: The essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006.
[c]Reference standard is based on the Recommended Dietary Allowance (RDA), IOM. Dietary Reference intakes: The essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006.
[d]Reference standard is based on the Upper Limit (UL), *Dietary Guidelines*, 2010 recommendation
[e]Reference standard is based on the *Dietary Guidelines*, 2010 recommendation
[f]Reference standard is based on the *Dietary Guidelines*, 2005 recommendation.

n.a. = Not applicable; AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents; SE = Standard error.

Table E.25. Average Calories and Nutrient Content of National School Lunch Program Lunches *Offered* to Students, by Menu Planning System *All Schools*

	Food-Based			Nutrient-Based (NSMP or ANSMP)
	Traditional	Enhanced	All	
Average Amount				
Calories	757	800	769	739
Macronutrients				
Total fat (g)	27	30	28	26
Saturated fat (g)	8	9	9	8
Monounsaturated fat (g)	10	10	10	9
Polyunsaturated fat (g)	7	8	7	7
Linoleic acid (g)	6	7	6	6
Alpha-linolenic acid (g)	0.7	0.8	0.7	0.7
Carbohydrate (g)	101	106	102	99
Protein (g)	31	32	32	30
Vitamins				
Vitamin A (mcg RE)	444	469	451	463
Vitamin A (mcg RAE)	330	349	335	339
Vitamin C (mg)	33	35	34	36
Vitamin E (mg AT)	2.8	3.0	2.9	2.8
Vitamin B_6 (mg)	0.6	0.6	0.6	0.6
Vitamin B_{12} (mcg)	1.8	1.8	1.8	1.8
Folate (mcg)	128	134	130	127
Folate (mcg DFE)	159	168	161	158
Niacin (mg)	7	7	7	6
Riboflavin (mg)	0.9	0.9	0.9	0.9
Thiamin (mg)	0.6	0.6	0.6	0.5
Minerals				
Calcium (mg)	536	558	542	536
Iron (mg)	4.7	4.8	4.7	4.5
Magnesium (mg)	110	114	111	108
Phosphorus (mg)	587	611	593	582
Potassium (mg)	1,175	1,215	1,185	1,178
Sodium (mg)	1,448	1,570	1,480	1,458
Zinc (mg)	4.0	4.1	4.0	3.9
Other Dietary Components				
Cholesterol (mg)	59	61	60	57
Dietary fiber (g)	8	8	8	8
Dietary fiber (g/1,000 kcal)	10	10	10	10
Average Percentage of Calories from:				
Total fat	31.9	33.0	32.2	31.7
Saturated fat	10.0	10.3	10.1	9.8
Monounsaturated fat	11.3	11.5	11.4	11.0
Polyunsaturated fat	8.1	8.7	8.3	8.4
Linoleic acid	7.2	7.7	7.3	7.4
Alpha-linolenic acid	0.8	0.9	0.8	0.8
Carbohydrate	53.5	52.7	53.3	53.8
Protein	16.7	16.3	16.6	16.6
Number of Schools	**454**	**171**	**625**	**259**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents; NSMP = Nutrient Standard Menu Planning; ANSMP = Assisted Nutrient Standard Menu Planning.

Table E.26. Average Calories and Nutrient Content of National School Lunch Program Lunches *Served* to Students, by Menu Planning System *All Schools*

	Food-Based			Nutrient-Based (NSMP or ANSMP)
	Traditional	Enhanced	All	
Average Amount				
Calories	669	716	682	671
Macronutrients				
Total fat (g)	24	26	25	24
Saturated fat (g)	8	8	8	7
Monounsaturated fat (g)	9	9	9	8
Polyunsaturated fat (g)	6	7	6	6
Linoleic acid (g)	5	6	5	5
Alpha-linolenic acid (g)	0.6	0.7	0.6	0.6
Carbohydrate (g)	88	93	89	89
Protein (g)	29	30	29	28
Vitamins				
Vitamin A (mcg RE)	330	363	339	344
Vitamin A (mcg RAE)	267	293	274	271
Vitamin C (mg)	23	24	23	24
Vitamin E (mg AT)	2.3	2.5	2.4	2.4
Vitamin B_6 (mg)	0.5	0.5	0.5	0.5
Vitamin B_{12} (mcg)	1.6	1.6	1.6	1.6
Folate (mcg)	106	111	107	107
Folate (mcg DFE)	134	140	135	136
Niacin (mg)	6	6	6	6
Riboflavin (mg)	0.8	0.9	0.8	0.8
Thiamin (mg)	0.5	0.5	0.5	0.5
Minerals				
Calcium (mg)	476	512	486	466
Iron (mg)	4.3	4.4	4.3	4.3
Magnesium (mg)	96	100	97	96
Phosphorus (mg)	533	564	542	522
Potassium (mg)	1,020	1,066	1,033	1,006
Sodium (mg)	1,348	1,479	1,383	1,355
Zinc (mg)	3.7	3.8	3.7	3.6
Other Dietary Components				
Cholesterol (mg)	55	57	55	53
Dietary fiber (g)	6	7	6	6
Dietary fiber (g/1,000 kcal)	9	9	9	9
Average Percentage of Calories from:				
Total fat	32.0	33.0	32.2	31.6
Saturated fat	10.2	10.5	10.3	9.8
Monounsaturated fat	11.4	11.5	11.4	11.1
Polyunsaturated fat	7.8	8.4	7.9	8.0
Linoleic acid	6.9	7.4	7.0	7.1
Alpha-linolenic acid	0.8	0.9	0.8	0.8
Carbohydrate	52.6	52.0	52.5	53.4
Protein	17.2	16.7	17.1	16.9
Number of Schools	**453**	**170**	**623**	**257**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents; NSMP = Nutrient Standard Menu Planning; ANSMP = Assisted Nutrient Standard Menu Planning.

Table E.27. Average and Distribution of Calories and Nutrients in National School Lunch Program Lunches *Offered* to Students, in Schools with a Traditional Food-Based Menu Planning System *All Schools*

			Percentiles						
	Average	SE	5th	10th	25th	50th	75th	90th	95th
Calories	757	8.4	577	616	670	735	821	908	994
Macronutrients									
Total fat (g)	27	0.5	18	19	22	26	30	37	39
Saturated fat (g)	8	0.1	6	6	7	8	10	11	12
Monounsaturated fat (g)	10	0.2	6	7	8	9	11	13	14
Polyunsaturated fat (g)	7	0.2	3	4	5	7	8	10	12
Linoleic acid (g)	6	0.1	3	4	5	6	7	9	10
Alpha-linolenic acid (g)	0.7	0.02	0.3	0.4	0.5	0.6	0.8	1.1	1.3
Carbohydrate (g)	101	1.3	76	80	88	99	112	126	138
Protein (g)	31	0.3	26	27	29	31	33	35	38
Vitamins									
Vitamin A (mcg RE)	444	13.9	229	257	314	410	510	623	796
Vitamin A (mcg RAE)	330	7.2	205	232	266	314	370	423	504
Vitamin C (mg)	33	1.2	11	14	20	32	43	57	67
Vitamin E (mg AT)	2.8	0.06	1.6	1.8	2.1	2.7	3.4	3.8	4.3
Vitamin B_6 (mg)	0.6	0.01	0.4	0.5	0.5	0.6	0.6	0.7	0.8
Vitamin B_{12} (mcg)	1.8	0.03	1.4	1.4	1.6	1.7	1.9	2.1	2.3
Folate (mcg)	128	1.8	90	96	109	124	143	164	175
Folate (mcg DFE)	159	2.5	106	117	134	153	177	208	225
Niacin (mg)	7	0.1	5	5	6	7	8	8	9
Riboflavin (mg)	0.9	0.01	0.8	0.8	0.8	0.9	1.0	1.0	1.1
Thiamin (mg)	0.6	0.01	0.4	0.4	0.5	0.5	0.6	0.7	0.8
Minerals									
Calcium (mg)	536	4.8	438	453	484	525	580	632	655
Iron (mg)	4.7	0.06	3.4	3.7	4.1	4.5	5.1	5.7	6.2
Magnesium (mg)	110	1.2	85	90	98	109	119	132	139
Phosphorus (mg)	587	5.1	487	507	542	580	620	662	707
Potassium (mg)	1,175	12.7	900	975	1,065	1,163	1,262	1,381	1,495
Sodium (mg)	1,448	23.2	996	1,096	1,228	1,407	1,591	1,878	2,022
Zinc (mg)	4.0	0.05	3.1	3.3	3.5	3.9	4.3	4.8	5.3
Other Components									
Cholesterol (mg)	59	1.0	35	42	51	59	68	77	86
Dietary fiber (g)	8	0.1	5	5	7	7	8	10	11

Table E.27 *(continued)*

	Average	SE	Percentiles						
			5th	10th	25th	50th	75th	90th	95th
Percentage of Calories from:									
Total fat	31.9	0.33	24.7	26.4	29.0	31.2	34.4	38.2	40.0
Saturated fat	10.0	0.12	7.7	8.2	8.9	10.0	10.8	11.6	12.9
Monosaturated fat	11.3	0.13	8.5	9.0	10.1	11.1	12.3	13.9	15.0
Polyunsaturated fat	8.1	0.14	5.1	5.6	6.5	7.8	9.3	10.8	11.9
Linoleic acid	7.2	0.12	4.4	4.9	5.8	7.0	8.3	9.7	10.6
Alpha-linolenic acid	0.8	0.02	0.5	0.5	0.6	0.8	1.0	1.2	1.3
Carbohydrate	53.5	0.32	44.4	48.0	50.6	53.8	56.5	58.8	60.4
Protein	16.7	0.12	14.0	14.6	15.5	16.6	17.7	19.1	19.8
Number of Schools	**454**								

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents; SE = Standard error.

Table E.28. Average and Distribution of Calories and Nutrients in National School Lunch Program Lunches *Offered* to Students, in Schools with an Enhanced Food-Based Menu Planning System *All Schools*

			Percentiles						
	Average	SE	5th	10th	25th	50th	75th	90th	95th
Calories	800	16.9	628~	651	693	768	874	1,001	1,092~
Macronutrients									
Total fat (g)	30	0.9	19~	21	25	28	33	39	43
Saturated fat (g)	9	0.3	7~	7	8	9	10	12	13
Monounsaturated fat (g)	10	0.3	7~	7	9	10	12	13	15
Polyunsaturated fat (g)	8	0.3	4~	5	6	7	9	11	13
Linoleic acid (g)	7	0.3	3~	4	5	7	8	10	11
Alpha-linolenic acid (g)	0.8	0.04	0.4~	0.5	0.6	0.7	1.0	1.2	1.4
Carbohydrate (g)	106	2.5	79~	84	89	100	117	136	152
Protein (g)	32	0.4	26~	27	29	32	34	37	39
Vitamins									
Vitamin A (mcg RE)	469	16.3	238~	281	358	448	549	724	776
Vitamin A (mcg RAE)	349	8.8	227~	246	290	336	387	474	519
Vitamin C (mg)	35	2.1	12~	16	20	29	40	59	72
Vitamin E (mg AT)	3.0	0.10	1.7~	1.9	2.4	3.0	3.4	4.0	4.4
Vitamin B_6 (mg)	0.6	0.01	0.4~	0.5	0.5	0.6	0.7	0.7	0.8
Vitamin B_{12} (mcg)	1.8	0.04	1.3~	1.5	1.6	1.7	1.9	2.1	2.2
Folate (mcg)	134	3.5	97~	104	116	128	144	175	199
Folate (mcg DFE)	168	5.2	117~	126	140	159	181	225	238
Niacin (mg)	7	0.1	5~	6	6	7	8	8	9
Riboflavin (mg)	0.9	0.01	0.8~	0.8	0.9	0.9	1.0	1.1	1.2
Thiamin (mg)	0.6	0.01	0.4~	0.5	0.5	0.6	0.6	0.8	0.8
Minerals									
Calcium (mg)	558	7.3	449~	463	507	557	600	636	660
Iron (mg)	4.8	0.11	3.5~	3.7	4.2	4.7	5.3	6.1	6.7
Magnesium (mg)	114	2.0	92~	94	102	112	121	137	150
Phosphorus (mg)	611	8.0	518~	532	565	602	635	694	748
Potassium (mg)	1,215	20.8	987~	1,022	1,077	1,169	1,322	1,422	1,599
Sodium (mg)	1,570	35.0	1,096~	1,168	1,362	1,500	1,764	1,984	2,163
Zinc (mg)	4.1	0.08	3.3~	3.4	3.6	4.0	4.4	4.8	5.1
Other Components									
Cholesterol (mg)	61	2.1	37~	41	48	58	70	83	93
Dietary fiber (g)	8	0.2	5~	6	7	8	9	10	11

Table E.28 *(continued)*

	Average	SE	Percentiles						
			5th	10th	25th	50th	75th	90th	95th
Percentage of Calories from:									
Total fat	33.0	0.52	25.9~	27.4	29.9	33.2	35.2	38.2	39.2
Saturated fat	10.3	0.16	8.0~	8.7	9.5	10.0	10.9	12.1	13.1
Monosaturated fat	11.5	0.20	8.5~	9.2	10.3	11.7	12.6	13.6	14.2
Polyunsaturated fat	8.7	0.26	5.6~	5.8	7.0	8.4	10.4	12.0	12.6
Linoleic acid	7.7	0.23	4.8~	5.2	6.1	7.5	9.1	10.6	11.1
Alpha-linolenic acid	0.9	0.03	0.5~	0.6	0.7	0.9	1.1	1.3	1.4
Carbohydrate	52.7	0.46	45.7~	47.3	50.5	52.8	55.7	57.4	58.8
Protein	16.3	0.25	13.2~	13.6	15.1	16.1	17.7	18.9	19.6
Number of Schools	**171**								

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents; SE = Standard error.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table E.29. Average and Distribution of Calories and Nutrients in National School Lunch Program Lunches *Offered* to Students, in Schools with a Nutrient-Based Menu Planning System *All Schools*

			Percentiles						
	Average	SE	5th	10th	25th	50th	75th	90th	95th
Calories	739	14.4	542	580	646	719	801	935	1,006
Macronutrients									
Total fat (g)	26	0.8	17	18	21	25	30	36	40
Saturated fat (g)	8	0.2	5	6	7	8	9	11	12
Monounsaturated fat (g)	9	0.3	6	6	7	9	10	12	14
Polyunsaturated fat (g)	7	0.3	3	4	5	6	8	10	13
Linoleic acid (g)	6	0.3	3	3	4	6	7	9	12
Alpha-linolenic acid (g)	0.7	0.04	0.3	0.4	0.5	0.6	0.8	1.1	1.4
Carbohydrate (g)	99	2.3	72	74	85	95	109	125	135
Protein (g)	30	0.4	25	26	27	30	33	35	38
Vitamins									
Vitamin A (mcg RE)	463	17.1	245	279	331	422	569	672	786
Vitamin A (mcg RAE)	339	8.9	218	244	274	318	396	451	511
Vitamin C (mg)	36	2.1	11	14	21	32	48	61	78
Vitamin E (mg AT)	2.8	0.10	1.7	1.8	2.2	2.7	3.2	4.0	4.7
Vitamin B_6 (mg)	0.6	0.01	0.4	0.4	0.5	0.5	0.6	0.7	0.8
Vitamin B_{12} (mcg)	1.8	0.03	1.4	1.5	1.6	1.7	1.8	2.0	2.2
Folate (mcg)	127	2.9	84	93	107	122	144	166	179
Folate (mcg DFE)	158	4.0	103	111	131	150	179	210	227
Niacin (mg)	6	0.1	5	5	5	6	7	8	9
Riboflavin (mg)	0.9	0.01	0.8	0.8	0.8	0.9	0.9	1.0	1.1
Thiamin (mg)	0.5	0.01	0.4	0.4	0.5	0.5	0.6	0.7	0.7
Minerals									
Calcium (mg)	536	5.8	450	475	490	527	567	622	652
Iron (mg)	4.5	0.10	3.1	3.4	3.8	4.4	5.0	5.8	6.3
Magnesium (mg)	108	1.6	83	88	96	104	118	129	139
Phosphorus (mg)	582	6.0	490	502	536	577	611	662	692
Potassium (mg)	1,178	19.7	908	954	1,035	1,150	1,275	1,435	1,602
Sodium (mg)	1,458	33.7	993	1,123	1,224	1,408	1,603	1,836	2,052
Zinc (mg)	3.9	0.06	3.0	3.2	3.4	3.9	4.2	4.5	5.1
Other Components									
Cholesterol (mg)	57	1.7	36	39	45	54	63	79	93
Dietary fiber (g)	8	0.2	4	5	6	7	9	11	12

Table E.29 *(continued)*

	Average	SE	Percentiles						
			5th	10th	25th	50th	75th	90th	95th
Percentage of Calories from:									
Total fat	31.7	0.55	23.8	25.4	28.3	30.6	34.6	38.4	41.2
Saturated fat	9.8	0.13	7.6	8.2	8.8	9.7	10.6	11.5	12.2
Monosaturated fat	11.0	0.19	8.2	8.8	9.8	10.9	12.0	13.2	14.4
Polyunsaturated fat	8.4	0.28	5.0	5.5	6.7	7.9	9.6	11.9	13.4
Linoleic acid	7.4	0.24	4.5	4.7	5.8	7.0	8.4	10.7	11.8
Alpha-linolenic acid	0.8	0.04	0.5	0.5	0.6	0.8	1.0	1.3	1.5
Carbohydrate	53.8	0.58	44.3	46.8	50.4	54.0	57.2	60.5	63.2
Protein	16.6	0.18	13.5	14.3	15.4	16.7	17.8	19.1	19.8
Number of Schools	**259**								

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents; SE = Standard error.

Table E.30. Average and Distribution of Calories and Nutrients in National School Lunch Program Lunches *Served* to Students, in Schools with a Traditional Food-Based Menu Planning System *All Schools*

			Percentiles						
	Average	SE	5th	10th	25th	50th	75th	90th	95th
Calories	669	7.4	510	548	599	661	730	803	854
Macronutrients									
Total fat (g)	24	0.4	16	17	19	23	27	32	35
Saturated fat (g)	8	0.1	5	6	6	7	9	10	11
Monounsaturated fat (g)	9	0.2	6	6	7	8	10	12	13
Polyunsaturated fat (g)	6	0.2	3	3	4	5	7	9	10
Linoleic acid (g)	5	0.1	3	3	4	5	6	8	9
Alpha-linolenic acid (g)	0.6	0.02	0.3	0.3	0.4	0.5	0.7	0.9	1.2
Carbohydrate (g)	88	1.0	67	70	77	87	96	103	111
Protein (g)	29	0.3	23	24	26	28	31	34	35
Vitamins									
Vitamin A (mcg RE)	330	7.2	195	210	252	309	389	475	530
Vitamin A (mcg RAE)	267	4.2	177	198	223	259	303	353	381
Vitamin C (mg)	23	0.8	9	11	14	21	28	37	46
Vitamin E (mg AT)	2.3	0.05	1.3	1.5	1.8	2.2	2.7	3.2	3.8
Vitamin B_6 (mg)	0.5	0.01	0.4	0.4	0.4	0.5	0.6	0.6	0.7
Vitamin B_{12} (mcg)	1.6	0.03	1.2	1.2	1.4	1.6	1.8	2.1	2.1
Folate (mcg)	106	1.3	77	82	92	106	117	130	138
Folate (mcg DFE)	134	1.8	92	100	114	133	148	167	181
Niacin (mg)	6	0.1	5	5	6	6	7	7	8
Riboflavin (mg)	0.8	0.01	0.6	0.7	0.7	0.8	0.9	0.9	1.0
Thiamin (mg)	0.5	0.01	0.4	0.4	0.4	0.5	0.5	0.6	0.7
Minerals									
Calcium (mg)	476	5.8	353	386	431	473	517	562	646
Iron (mg)	4.3	0.05	3.2	3.5	3.8	4.2	4.6	5.2	5.5
Magnesium (mg)	96	1.1	74	79	86	94	106	118	124
Phosphorus (mg)	533	5.7	412	443	488	520	572	633	663
Potassium (mg)	1,020	12.5	790	817	915	1,010	1,114	1,226	1,286
Sodium (mg)	1,348	19.7	974	1,023	1,165	1,305	1,489	1,752	1,899
Zinc (mg)	3.7	0.05	2.8	2.9	3.2	3.6	4.0	4.7	5.0
Other Components									
Cholesterol (mg)	55	0.8	38	42	47	53	61	69	77
Dietary fiber (g)	6	0.1	4	5	5	6	7	8	9

Table E.30 *(continued)*

	Average	SE	Percentiles						
			5th	10th	25th	50th	75th	90th	95th
Percentage of Calories from:									
Total fat	32.0	0.33	24.8	26.6	29.1	31.4	34.1	38.5	40.0
Saturated fat	10.2	0.11	8.1	8.4	9.1	10.1	11.0	12.0	12.8
Monosaturated fat	11.4	0.12	8.7	9.3	10.3	11.3	12.4	13.6	14.7
Polyunsaturated fat	7.8	0.16	4.6	5.2	6.3	7.4	9.0	10.8	12.3
Linoleic acid	6.9	0.14	4.0	4.6	5.5	6.6	7.9	9.5	10.9
Alpha-linolenic acid	0.8	0.02	0.5	0.5	0.6	0.7	0.9	1.2	1.4
Carbohydrate	52.6	0.31	44.6	46.9	50.2	52.8	55.6	58.4	59.4
Protein	17.2	0.12	14.5	15.4	16.2	17.2	18.3	19.3	20.0
Number of Schools	**453**								

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents; SE = Standard error.

Table E.31. Average and Distribution of Calories and Nutrients in National School Lunch Program Lunches *Served* to Students, in Schools with an Enhanced Food-Based Menu Planning System *All Schools*

			Percentiles						
	Average	SE	5th	10th	25th	50th	75th	90th	95th
Calories	716	14.5	523~	582	635	686	764	875	967~
Macronutrients									
Total fat (g)	26	0.7	18~	19	22	25	30	36	40~
Saturated fat (g)	8	0.2	6~	6	7	8	9	11	12~
Monounsaturated fat (g)	9	0.3	6~	6	7	9	11	13	14~
Polyunsaturated fat (g)	7	0.3	4~	4	5	6	8	9	11~
Linoleic acid (g)	6	0.2	3~	4	4	6	7	8	10~
Alpha-linolenic acid (g)	0.7	0.03	0.3~	0.4	0.5	0.6	0.9	1.0	1.2~
Carbohydrate (g)	93	2.1	66~	71	83	90	101	117	128~
Protein (g)	30	0.4	24~	26	27	29	31	34	38~
Vitamins									
Vitamin A (mcg RE)	363	12.7	208~	244	284	336	411	536	608~
Vitamin A (mcg RAE)	293	7.2	198~	223	254	279	323	377	414~
Vitamin C (mg)	24	1.5	9~	12	16	21	28	39	50~
Vitamin E (mg AT)	2.5	0.08	1.6~	1.7	2.0	2.4	3.0	3.6	3.8~
Vitamin B_6 (mg)	0.5	0.01	0.4~	0.4	0.4	0.5	0.6	0.6	0.7~
Vitamin B_{12} (mcg)	1.6	0.03	1.2~	1.3	1.4	1.6	1.8	1.9	2.1~
Folate (mcg)	111	2.4	80~	90	98	107	124	131	150~
Folate (mcg DFE)	140	3.2	98~	111	123	133	157	173	193~
Niacin (mg)	6	0.1	5~	5	6	6	7	8	8~
Riboflavin (mg)	0.9	0.01	0.7~	0.7	0.8	0.8	0.9	1.0	1.0~
Thiamin (mg)	0.5	0.01	0.4~	0.4	0.5	0.5	0.6	0.7	0.7~
Minerals									
Calcium (mg)	512	8.4	404~	425	456	503	547	604	651~
Iron (mg)	4.4	0.09	3.2~	3.5	3.9	4.3	4.8	5.5	5.9~
Magnesium (mg)	100	1.7	81~	84	89	95	110	120	123~
Phosphorus (mg)	564	8.2	456~	489	517	551	604	653	702~
Potassium (mg)	1,066	21.1	811~	872	943	1,037	1,124	1,264	1,382~
Sodium (mg)	1,479	39.4	1,042~	1,134	1,246	1,402	1,642	2,042	2,076~
Zinc (mg)	3.8	0.07	2.9~	3.1	3.3	3.7	4.1	4.5	5.0~
Other Components									
Cholesterol (mg)	57	1.6	39~	43	46	55	64	73	80~
Dietary fiber (g)	7	0.2	5~	5	5	6	7	9	9~

Table E.31 *(continued)*

	Average	SE	Percentiles						
			5th	10th	25th	50th	75th	90th	95th
Percentage of Calories from:									
Total fat	33.0	0.45	26.7~	28.6	29.6	32.1	36.4	38.5	39.7~
Saturated fat	10.5	0.17	8.2~	8.7	9.4	10.4	11.2	12.1	12.7~
Monosaturated fat	11.5	0.18	9.0~	9.4	10.3	11.7	12.6	13.7	13.9~
Polyunsaturated fat	8.4	0.24	5.5~	5.7	6.8	7.9	10.0	11.4	12.7~
Linoleic acid	7.4	0.22	4.8~	5.1	6.1	6.9	8.7	10.0	11.3~
Alpha-linolenic acid	0.9	0.03	0.5~	0.6	0.7	0.8	1.1	1.3	1.4~
Carbohydrate	52.0	0.44	45.4~	46.5	48.6	52.7	54.9	56.9	57.7~
Protein	16.7	0.20	13.9~	15.0	15.7	16.5	17.8	18.9	19.6~
Number of Schools	**170**								

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents; SE = Standard error.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table E.32. Average and Distribution of Calories and Nutrients in National School Lunch Program Lunches *Served* to Students, in Schools with a Nutrient-Based Menu Planning System *All Schools*

			Percentiles						
	Average	SE	5th	10th	25th	50th	75th	90th	95th
Calories	671	12.7	503	524	565	654	762	839	912
Macronutrients									
Total fat (g)	24	0.7	15	16	19	22	27	33	38
Saturated fat (g)	7	0.2	5	5	6	7	8	10	12
Monounsaturated fat (g)	8	0.2	5	6	7	8	9	12	13
Polyunsaturated fat (g)	6	0.3	3	4	5	5	7	9	11
Linoleic acid (g)	5	0.2	3	3	4	5	6	8	10
Alpha-linolenic acid (g)	0.6	0.03	0.3	0.3	0.4	0.5	0.7	1.0	1.3
Carbohydrate (g)	89	1.8	62	69	76	87	102	115	118
Protein (g)	28	0.4	22	23	25	27	30	34	35
Vitamins									
Vitamin A (mcg RE)	344	12.4	189	199	246	306	426	552	612
Vitamin A (mcg RAE)	271	7.1	157	183	217	255	319	398	420
Vitamin C (mg)	24	1.2	10	12	14	21	29	41	48
Vitamin E (mg AT)	2.4	0.07	1.4	1.6	1.9	2.1	2.7	3.3	3.9
Vitamin B_6 (mg)	0.5	0.01	0.3	0.4	0.4	0.5	0.6	0.6	0.7
Vitamin B_{12} (mcg)	1.6	0.03	1.0	1.1	1.4	1.6	1.8	1.9	2.0
Folate (mcg)	107	2.1	77	81	90	103	121	135	152
Folate (mcg DFE)	136	2.8	94	101	113	132	155	173	192
Niacin (mg)	6	0.1	4	5	5	6	7	7	8
Riboflavin (mg)	0.8	0.01	0.6	0.6	0.7	0.8	0.9	1.0	1.0
Thiamin (mg)	0.5	0.01	0.3	0.4	0.4	0.5	0.5	0.6	0.7
Minerals									
Calcium (mg)	466	6.7	346	389	422	462	498	554	596
Iron (mg)	4.3	0.08	3.2	3.3	3.6	4.2	4.8	5.3	5.7
Magnesium (mg)	96	1.6	71	78	85	93	108	119	125
Phosphorus (mg)	522	7.6	406	429	471	506	577	626	652
Potassium (mg)	1,006	18.4	712	778	866	1,001	1,134	1,244	1,305
Sodium (mg)	1,355	31.2	923	976	1,117	1,335	1,504	1,793	1,922
Zinc (mg)	3.6	0.08	2.7	2.8	3.1	3.4	3.9	4.6	4.8
Other Components									
Cholesterol (mg)	53	1.6	37	38	42	50	59	71	80
Dietary fiber (g)	6	0.2	4	4	5	6	7	9	9

Table E.32 *(continued)*

	Average	SE	Percentiles						
			5th	10th	25th	50th	75th	90th	95th
Percentage of Calories from:									
Total fat	31.6	0.49	24.5	25.8	28.6	31.1	34.4	37.0	40.0
Saturated fat	9.8	0.13	7.6	8.1	8.9	9.7	10.6	11.3	12.1
Monosaturated fat	11.1	0.16	8.6	9.2	10.1	11.1	11.8	13.0	13.9
Polyunsaturated fat	8.0	0.24	5.0	5.4	6.2	7.5	9.3	11.3	12.5
Linoleic acid	7.1	0.21	4.5	4.8	5.5	6.7	8.1	9.9	11.0
Alpha-linolenic acid	0.8	0.03	0.5	0.5	0.6	0.7	0.9	1.2	1.4
Carbohydrate	53.4	0.49	46.0	47.3	50.2	53.9	56.1	59.6	60.6
Protein	16.9	0.17	14.1	14.7	15.7	16.7	18.0	19.4	20.0
Number of Schools	**257**								

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents; SE = Standard error.

Table E.33. Average Calories and Nutrient Content of National School Lunch Program Lunches *Offered* to Students—Estimated Without SNDA-IV Adjustment for Fruits and Vegetables

	Elementary Schools	Middle Schools	High Schools	All Schools
Average Amount				
Calories	719	778	833	753
Macronutrients				
Total fat (g)	26	28	30	27
Saturated fat (g)	8	9	9	8
Monounsaturated fat (g)	9	10	11	10
Polyunsaturated fat (g)	7	7	8	7
Linoleic acid (g)	6	6	7	6
Alpha-linolenic acid (g)	0.6	0.8	0.9	0.7
Carbohydrate (g)	96	103	110	100
Protein (g)	30	32	34	31
Vitamins				
Vitamin A (mcg RE)	440	447	446	443
Vitamin A (mcg RAE)	326	334	337	330
Vitamin C (mg)	31	36	38	33
Vitamin E (mg AT)	2.7	2.8	3.1	2.8
Vitamin B_6 (mg)	0.5	0.6	0.6	0.6
Vitamin B_{12} (mcg)	1.7	1.8	1.9	1.8
Folate (mcg)	121	134	143	128
Folate (mcg DFE)	149	167	181	159
Niacin (mg)	6	7	8	7
Riboflavin (mg)	0.9	0.9	1.0	0.9
Thiamin (mg)	0.5	0.6	0.6	0.6
Minerals				
Calcium (mg)	527	550	562	538
Iron (mg)	4.4	4.9	5.2	4.6
Magnesium (mg)	106	110	115	109
Phosphorus (mg)	572	600	622	587
Potassium (mg)	1,129	1,199	1,247	1,166
Sodium (mg)	1,383	1,532	1,633	1,461
Zinc (mg)	3.8	4.1	4.2	4.0
Other Dietary Components				
Cholesterol (mg)	56	62	66	59
Dietary fiber (g)	7	8	8	8
Dietary fiber (g/1,000 kcal)	10	10	10	10
Average Percentage of Calories from:				
Total fat	32.0	32.1	32.7	32.2
Saturated fat	10.1	10.0	10.0	10.1
Monounsaturated fat	11.3	11.2	11.4	11.3
Polyunsaturated fat	8.1	8.3	8.7	8.3
Linoleic acid	7.3	7.3	7.7	7.4
Alpha-linolenic acid	0.8	0.9	0.9	0.8
Carbohydrate	53.4	53.1	52.9	53.2
Protein	16.8	16.8	16.4	16.7
Number of Schools	**318**	**287**	**279**	**884**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents.

Table E.34. Average Calories and Nutrient Content of National School Lunch Program Lunches *Offered* to Students, Relative to SMI Nutrition Standards and Related Benchmarks—Estimated Without SNDA-IV Adjustment for Fruits and Vegetables

	Standard/ Recommendation	Elementary Schools	Middle Schools	High Schools	All Schools
Average Percentage of 1989 REA/RDA					
Calories	33%	36.6$^{\alpha}$	33.3	32.9$^{\gamma}$	35.3
Protein	33%	106.3$^{\alpha}$	71.9$^{\beta}$	67.6$^{\gamma}$	92.3
Vitamin A[a]	33%	68.1$^{\alpha}$	50.2	49.6$^{\gamma}$	61.1
Vitamin C	33%	67.5	72.4$^{\beta}$	66.1	68.1
Calcium	33%	63.3$^{\alpha}$	46.4	46.9$^{\gamma}$	56.9
Iron	33%	42.2$^{\alpha}$	36.3$^{\beta}$	38.3$^{\gamma}$	40.4
Average Percentage of Calories from:					
Total fat	≤ 30%[b]	32.0	32.1	32.7	32.2
Saturated fat	< 10%	10.1	10.0	10.0	10.1
Average Amount					
Cholesterol	< 100 mg[c,d]	56$^{\alpha}$	62$^{\beta}$	66$^{\gamma}$	59
Sodium	< 767 mg[c,d]	1,383$^{\alpha}$	1,532$^{\beta}$	1,633$^{\gamma}$	1,461
Dietary fiber (g/1,000 calories)	14[c]	10	10	10	10
Number of Schools		**318**	**287**	**279**	**884**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).
[b]The 2010 *Dietary Guidelines for Americans* recommendation for the percentage of calories from total fat is 25-35%.
[c]Based on the 2010 *Dietary Guidelines for Americans.*
[d]Benchmarks are one-third of suggested maximum daily intake.

SMI = School Meals Initiative for Healthy Children; REA = Recommended Energy Allowance; RDA = Recommended Dietary Allowances.

[α]Difference between elementary and middle schools is significantly different from zero at the .05 level.
[β]Difference between middle and high schools is significantly different from zero at the .05 level.
[γ]Difference between elementary and high schools is significantly different from zero at the .05 level.

Table E.35. Proportion of Schools *Offering* National School Lunch Program Lunches that Satisfied Each of the SMI Nutrition Standards and Related Benchmarks and Different Combinations of the Standards and Benchmarks —Estimated Without SNDA-IV Adjustment for Fruits and Vegetables

	Standard/ Recommendation	Elementary Schools	Middle Schools	High Schools	All Schools
SMI Nutrition Standards					
Calories	33% of 1989 REA	74.3[α]	45.6	41.6[γ]	62.5
Protein	33% of 1989 RDA	100.0	100.0	100.0	100.0
Vitamin A[a]	33% of 1989 RDA	97.4[α]	85.8	87.4[γ]	93.3
Vitamin C	33% of 1989 RDA	82.3	88.3	89.5[γ]	84.8
Calcium	33% of 1989 RDA	100.0	99.9	98.8	99.7
Iron	33% of 1989 RDA	91.7[α]	65.3[β]	75.8[γ]	83.8
Percentage of Calories from Total Fat	≤ 30%	35.4	36.0	31.4	34.7
Percentage of Calories from Saturated Fat	< 10%	48.5	50.5	52.5	49.7
Other Nutrition Benchmarks					
Percentage of Calories from Total Fat	25% – 35%[b]	70.6	71.4	70.2	70.6
Cholesterol	< 100 mg[b,c]	99	98	93[γ]	98
Sodium	< 767 mg[b,c]	0	0	0	0
Dietary fiber (g/1,000 kcal)	14[b]	3	4	3	3
Combinations of Standards					
All SMI Standards		15.0	10.8	8.1[γ]	12.9
SMI Standards for all RDA Nutrients[c]		74.8[α]	51.5[β]	65.1[γ]	68.7
SMI Standards for All RDA Nutrients[d] and SMI Standard for Saturated Fat		36.6	29.8	37.8	35.6
SMI Standards for All RDA Nutrients[d] SMI Standard for Saturated Fat, and 2005 *Dietary Guidelines* Standard for Total Fat		30.5	25.8	31.9	29.9
Updated Standards for All RDA Nutrients[e] SMI Standard for Saturated Fat, and 2005 *Dietary Guidelines* Standard for Total Fat		32.7	35.3[β]	18.7[γ]	30.3
Number of Schools		**318**	**287**	**279**	**884**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).
[b]Based on the 2010 *Dietary Guidelines for Americans*.
[c]Benchmarks are one-third of suggested maximum daily intake.
[d]Includes protein, vitamin A, vitamin C, calcium and iron.

Table E.35 *(continued)*

[e]Updated to reflect RDA values included in the Dietary Reference Intakes.

RDA = Recommended Dietary Allowances; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between elementary and middle schools is significantly different from zero at the .05 level.
[β]Difference between middle and high schools is significantly different from zero at the .05 level.
[γ]Difference between elementary and high schools is significantly different from zero at the .05 level.

Table E.36. Average Calorie and Nutrient Content of National School Lunch Program Lunches *Offered*, Relative to SMI Nutrition Standards and Related Benchmarks, by School Size

	Standard/ Recommendation	School Size			All Schools
		Small (Less than 500 Students)	Medium (500–999 Students)	Large (1,000 or more Students)	
Average Percentage of 1989 REA/RDA					
Calories	33%	35.8	35.7	34.3	35.6
Protein	33%	96.8	93.3$^{\beta}$	70.8$^{\gamma}$	92.7
Vitamin A[a]	33%	62.8	65.6$^{\beta}$	52.3$^{\gamma}$	62.7
Vitamin C	33%	65.0$^{\alpha}$	76.8	75.6$^{\gamma}$	70.4
Calcium	33%	58.0	58.5$^{\beta}$	48.6$^{\gamma}$	57.1
Iron	33%	41.7$^{\alpha}$	39.9	39.2$^{\gamma}$	40.8
Average Percentage of Calories from:					
Total fat	≤ 30%[b]	32.3	31.8	32.1	32.1
Saturated fat	< 10%	10.2$^{\alpha}$	9.8	9.7$^{\gamma}$	10.0
Average Amount					
Cholesterol	< 100 mg[c,d]	59	58$^{\beta}$	64	59
Sodium	< 767 mg[c,d]	1,454	1,451$^{\beta}$	1,646$^{\gamma}$	1,474
Dietary fiber (g/1,000 calories)	14[c]	10	10	10	10
Number of Schools		**357**	**320**	**207**	**884**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).
[b]The 2010 *Dietary Guidelines for Americans* recommendation for the percentage of calories from total fat is 25–35%.
[c]Based on the 2010 *Dietary Guidelines for Americans.*
[d]Benchmarks are one-third of suggested maximum daily intake.

RDA = Recommended Dietary Allowances; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between small and medium size schools is significantly different from zero at the .05 level.
[β]Difference between middle and large size schools is significantly different from zero at the .05 level.
[γ]Difference between small and large size schools is significantly different from zero at the .05 level.

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Table E.37. Proportion of Schools *Offering* National School Lunch Program Lunches that Satisfied Each of the SMI Nutrition Standards and Related Benchmarks and Different Combinations of the Standards and Benchmarks, by School Size

	Standard/ Recommendation	School Size			All Schools
		Small (Less than 500 Students)	Medium (500–999 Students)	Large (1,000 or more Students)	
SMI Nutrition Standards					
Calories	33% of 1989 REA	64.1	68.2[β]	53.9	64.5
Protein	33% of 1989 RDA	>97	>97	>97	>97
Vitamin A[a]	33% of 1989 RDA	93.1	94.8	91.1	93.5
Vitamin C	33% of 1989 RDA	78.4[α]	91.9	95.9[γ]~	85.3
Calcium	33% of 1989 RDA	>97	>97	>97	>97
Iron	33% of 1989 RDA	88.3	82.8	74.4[γ]	84.8
Percentage of Calories from Total Fat	≤ 30%	34.8	34.8	35.4	34.9
Percentage of Calories from Saturated Fat	< 10%	47.6	53.6	61.8[γ]	51.4
Other Nutrition Benchmarks					
Percentage of Calories from Total Fat	25% – 35%[b]	68.0	72.3	75.3	70.4
Cholesterol	< 100 mg[b,c]	>97[α]	>97	92	98
Sodium	< 767 mg[b,c]	<3	<3	<3	<3
Dietary fiber (g/1,000 calories)	14[b]	4~	4~	4~	4
Combinations of Standards					
All SMI Standards		11.9	17.8	14.4	14.3
SMI Standards for all RDA Nutrients[c]		65.8[α]	77.0	67.8	70.1
SMI Standards for all RDA Nutrients[d] and SMI Standard for Saturated Fat		33.0	42.8	46.7[γ]	38.1
SMI Standards for all RDA Nutrients,[d] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		27.0	36.0	37.1	31.4
Updated Standards for all RDA Nutrients,[e] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		27.4	36.3	34.6	31.4
Number of Schools		**357**	**320**	**207**	**884**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).

Table E.37 *(continued)*

[b]Based on the 2010 *Dietary Guidelines* for Americans.
[c]Benchmarks are one-third of suggested maximum daily intake.
[d]Includes protein, vitamin A, vitamin C, calcium and iron.
[e]Updated to reflect RDA values included in the Dietary Reference Intakes.

RDA = Recommended Dietary Allowances; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between small and medium size schools is significantly different from zero at the .05 level.
[β]Difference between middle and large size schools is significantly different from zero at the .05 level.
[γ]Difference between small and large size schools is significantly different from zero at the .05 level.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table E.38. Average Calorie and Nutrient Content of National School Lunch Program Lunches *Served*, Relative to SMI Nutrition Standards and Related Benchmarks, by School Size

	Standard/ Recommendation	School Size: Small (Less than 500 Students)	School Size: Medium (500–999 Students)	School Size: Large (1,000 or more Students)	All Schools
Average Percentage of 1989 REA/RDA					
Calories	33%	33.4$^{\alpha}$	30.8$^{\beta}$	27.9$^{\gamma}$	31.9
Protein	33%	92.4$^{\alpha}$	83.8$^{\beta}$	59.9$^{\gamma}$	85.6
Vitamin A[a]	33%	52.1$^{\alpha}$	44.4$^{\beta}$	33.2$^{\gamma}$	47.2
Vitamin C	33%	47.5	48.9	46.1	47.9
Calcium	33%	54.5$^{\alpha}$	49.8$^{\beta}$	39.1$^{\gamma}$	51.1
Iron	33%	39.8$^{\alpha}$	36.5$^{\beta}$	33.0$^{\gamma}$	37.8
Average Percentage of Calories from:					
Total fat	≤ 30%[b]	32.0	31.8$^{\beta}$	33.3$^{\gamma}$	32.1
Saturated fat	< 10%	10.2	10.0	10.2	10.1
Average Amount					
Cholesterol	< 100 mg[c,d]	57$^{\alpha}$	52	53	55
Sodium	< 767 mg[c,d]	1,416$^{\alpha}$	1,305$^{\beta}$	1,413	1,375
Dietary fiber (g/1,000 calories)	14[c]	10$^{\alpha}$	9$^{\beta}$	9$^{\gamma}$	9
Number of Schools		**354**	**319**	**207**	**880**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).
[b]The 2010 *Dietary Guidelines for Americans* recommendation for the percentage of calories from total fat is 25–35%.
[c]Based on the 2010 *Dietary Guidelines for Americans.*
[d]Benchmarks are one-third of suggested maximum daily intake.

RDA = Recommended Dietary Allowances; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between small and medium size schools is significantly different from zero at the .05 level.
[β]Difference between middle and large size schools is significantly different from zero at the .05 level.
[γ]Difference between small and large size schools is significantly different from zero at the .05 level.

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Table E.39. Proportion of Schools *Serving* National School Lunch Program Lunches that Satisfied Each of the SMI Nutrition Standards and Related Benchmarks and Different Combinations of the Standards and Benchmarks, by School Size

	Standard/ Recommendation	School Size			All Schools
		Small (Less than 500 Students)	Medium (500–999 Students)	Large (1,000 or more Students)	
SMI Nutrition Standards					
Calories	33% of 1989 REA	50.0$^{\alpha}$	27.9	20.3$^{\gamma}$	38.7
Protein	33% of 1989 RDA	>97	>97	>97	>97
Vitamin A[a]	33% of 1989 RDA	85.1$^{\alpha}$	72.8$^{\beta}$	41.8$^{\gamma}$	75.9
Vitamin C	33% of 1989 RDA	66.3	70.1	66.6	67.7
Calcium	33% of 1989 RDA	97.0~	93.5$^{\beta}$	79.9$^{\gamma}$	93.8
Iron	33% of 1989 RDA	86.4$^{\alpha}$	67.9$^{\beta}$	43.2$^{\gamma}$	74.9
Percentage of Calories from Total Fat	≤ 30%	33.4	37.2	27.4	34.1
Percentage of Calories from Saturated Fat	< 10%	47.0	56.2	46.4	50.3
Other Nutrition Benchmarks					
Percentage of Calories from Total Fat	25% – 35%[b]	72.1	74.3	65.2	72.2
Cholesterol	< 100 mg[b,c]	>97$^{\alpha}$	>97	>97$^{\gamma}$	>97
Sodium	< 767 mg[b,c]	<3	<3	<3	<3
Dietary fiber (g/1,000 calories)	14[b]	<3	<3	<3	<3
Combinations of Standards					
All SMI Standards		7.2	6.5	3.4~	6.5
SMI Standards for all RDA Nutrients[c]		49.3	45.4$^{\beta}$	25.2$^{\gamma}$	45.2
SMI Standards for all RDA Nutrients[d] and SMI Standard for Saturated Fat		23.1	26.6$^{\beta}$	12.1$^{\gamma}$	23.1
SMI Standards for all RDA Nutrients,[d] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		18.9	20.6$^{\beta}$	8.0$^{\gamma}$	18.3
Updated Standards for all RDA Nutrients,[e] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		18.1	19.7$^{\beta}$	5.4$^{\gamma}$~	17.3
Number of Schools		**354**	**319**	**207**	**880**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).

Table E.39 *(continued)*

[b]Based on the 2010 *Dietary Guidelines for Americans*.
[c]Benchmarks are one-third of suggested maximum daily intake.
[d]Includes protein, vitamin A, vitamin C, calcium and iron.
[e]Updated to reflect RDA values included in the Dietary Reference Intakes.

RDA = Recommended Dietary Allowances; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between small and medium size schools is significantly different from zero at the .05 level.
[β]Difference between middle and large size schools is significantly different from zero at the .05 level.
[γ]Difference between small and large size schools is significantly different from zero at the .05 level.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table E.40. Average Calorie and Nutrient Content of National School Lunch Program Lunches *Offered*, Relative to SMI Nutrition Standards and Related Benchmarks, by District Child Poverty Level

	Standard/ Recommendation	District Child Poverty Level		All Schools
		Low Poverty (Less than 30% of children in poverty	Higher Poverty (30% or more of children in poverty)	
Average Percentage of 1989 REA/RDA				
Calories	33%	36.5$^{\alpha}$	33.8	35.6
Protein	33%	93.8$^{\alpha}$	90.4	92.7
Vitamin A[a]	33%	64.6$^{\alpha}$	58.9	62.7
Vitamin C	33%	73.4$^{\alpha}$	64.6	70.4
Calcium	33%	58.4$^{\alpha}$	54.5	57.1
Iron	33%	41.5$^{\alpha}$	39.2	40.8
Average Percentage of Calories from:				
Total fat	≤ 30%[b]	32.2	31.8	32.1
Saturated fat	< 10%	10.0	10.1	10.0
Average Amount				
Cholesterol	< 100 mg[c,d]	59	59	59
Sodium	< 767 mg[c,d]	1,508$^{\alpha}$	1,406	1,474
Dietary fiber (g/1,000 calories)	14[c]	10$^{\alpha}$	10	10
Number of Schools		**598**	**286**	**884**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).
[b]The 2010 *Dietary Guidelines for Americans* recommendation for the percentage of calories from total fat is 25–35%.
[c]Based on the 2010 *Dietary Guidelines for Americans.*
[d]Benchmarks are one-third of suggested maximum daily intake.

RDA = Recommended Dietary Allowances; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between low and higher district child poverty level is significantly different from zero at the .05 level.

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Table E.41. Proportion of Schools *Offering* National School Lunch Program Lunches that Satisfied Each of the SMI Nutrition Standards and Related Benchmarks and Different Combinations of the Standards and Benchmarks, by District Child Poverty Level

	Standard/ Recommendation	District Child Poverty Level		All Schools
		Low Poverty (Less than 30% of children in poverty	Higher Poverty (30% or more of children in poverty)	
SMI Nutrition Standards				
Calories	33% of 1989 REA	69.9[α]	53.7	64.5
Protein	33% of 1989 RDA	>97	>97	>97
Vitamin A[a]	33% of 1989 RDA	95.4[α]	89.6	93.5
Vitamin C	33% of 1989 RDA	86.5	82.7	85.3
Calcium	33% of 1989 RDA	>97	>97	>97
Iron	33% of 1989 RDA	86.6	80.5	84.8
Percentage of Calories from Total Fat	≤ 30%	33.5	37.6	34.9
Percentage of Calories from Saturated Fat	< 10%	50.9	52.4	51.4
Other Nutrition Benchmarks				
Percentage of Calories from Total Fat	25% – 35%[b]	68.7	73.7	70.4
Cholesterol	< 100 mg[b,c]	98	>97	98
Sodium	< 767 mg[b,c]	<3	0	<3
Dietary fiber (g/1,000 calories)	14[b]	4	3	4
Combinations of Standards				
All SMI Standards		15.9	11.2	14.3
SMI Standards for all RDA Nutrients[c]		73.3	63.6	70.1
SMI Standards for all RDA Nutrients[d] and SMI Standard for Saturated Fat		39.1	36.0	38.1
SMI Standards for all RDA Nutrients,[d] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		31.1	31.9	31.4
Updated Standards for all RDA Nutrients,[e] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		31.1	32.1	31.4
Number of Schools		**598**	**286**	**884**

Table E.41 *(continued)*

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).
[b]Based on the 2010 *Dietary Guidelines* for Americans.
[c]Benchmarks are one-third of suggested maximum daily intake.
[d]Includes protein, vitamin A, vitamin C, calcium and iron.
[e]Updated to reflect RDA values included in the Dietary Reference Intakes.

RDA = Recommended Dietary Allowances; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between low and higher district child poverty level is significantly different from zero at the .05 level.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table E.42. Average Calorie and Nutrient Content of National School Lunch Program Lunches *Served*, Relative to SMI Nutrition Standards and Related Benchmarks, by District Child Poverty Level

	Standard/ Recommendation	District Child Poverty Level		All Schools
		Low Poverty (Less than 30% of children in poverty	Higher Poverty (30% or more of children in poverty)	
Average Percentage of 1989 REA/RDA				
Calories	33%	32.1	31.3	31.9
Protein	33%	85.9	85.2	85.6
Vitamin A[a]	33%	48.1	45.5	47.2
Vitamin C	33%	47.7	48.1	47.9
Calcium	33%	51.7	49.8	51.1
Iron	33%	37.9	37.7	37.8
Average Percentage of Calories from:				
Total fat	≤ 30%[b]	32.3	31.5	32.1
Saturated fat	< 10%	10.2	10.1	10.1
Average Amount				
Cholesterol	< 100 mg[c,d]	55	55	55
Sodium	< 767 mg[c,d]	1,395	1,336	1,375
Dietary fiber (g/1,000 calories)	14[c]	9[α]	10	9
Number of Schools		**595**	**285**	**880**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).
[b]The 2010 *Dietary Guidelines for Americans* recommendation for the percentage of calories from total fat is 25–35%.
[c]Based on the 2010 *Dietary Guidelines for Americans.*
[d]Benchmarks are one–third of suggested maximum daily intake.

RDA = Recommended Dietary Allowances; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between low and higher district child poverty level is significantly different from zero at the .05 level.

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Table E.43. Proportion of Schools *Serving* National School Lunch Program Lunches that Satisfied Each of the SMI Nutrition Standards and Related Benchmarks and Different Combinations of the Standards and Benchmarks, by District Child Poverty Level

		District Child Poverty Level		
	Standard/ Recommendation	Low Poverty (Less than 30% of children in poverty	Higher Poverty (30% or more of children in poverty)	All Schools
SMI Nutrition Standards				
Calories	33% of 1989 REA	40.3	35.4	38.7
Protein	33% of 1989 RDA	>97	>97	>97
Vitamin A[a]	33% of 1989 RDA	77.8	71.9	75.9
Vitamin C	33% of 1989 RDA	68.9	65.4	67.7
Calcium	33% of 1989 RDA	94.8	92.0	93.8
Iron	33% of 1989 RDA	76.7	71.1	74.9
Percentage of Calories from Total Fat	≤ 30%	30.0[α]	42.4	34.1
Percentage of Calories from Saturated Fat	< 10%	49.2	52.4	50.3
Other Nutrition Benchmarks				
Percentage of Calories from Total Fat	25% – 35%[b]	71.0	74.6	72.2
Cholesterol	< 100 mg[b,c]	>97[α]	>97	>97
Sodium	< 767 mg[b,c]	<3	1	<3
Dietary fiber (g/1,000 calories)	14[b]	<3	0	<3
Combinations of Standards				
All SMI Standards		6.8	5.9	6.5
SMI Standards for all RDA Nutrients[c]		48.4	38.9	45.2
SMI Standards for all RDA Nutrients[d] and SMI Standard for Saturated Fat		24.3	20.9	23.1
SMI Standards for all RDA Nutrients,[d] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		19.5	15.8	18.3
Updated Standards for all RDA Nutrients,[e] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		17.8	16.2	17.3
Number of Schools		**595**	**285**	**880**

Table E.43 *(continued)*

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).
[b]Based on the 2010 *Dietary Guidelines for Americans*.
[c]Benchmarks are one-third of suggested maximum daily intake.
[d]Includes protein, vitamin A, vitamin C, calcium and iron.
[e]Updated to reflect RDA values included in the Dietary Reference Intakes.

RDA = Recommended Dietary Allowances; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between low and higher district child poverty level is significantly different from zero at the .05 level.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table E.44. Average Calorie and Nutrient Content of National School Lunch Program Lunches *Offered*, Relative to SMI Nutrition Standards and Related Benchmarks, by Community Type

		Community Type			
	Standard/ Recommendation	Urban	Suburban	Rural	All Schools
Average Percentage of 1989 REA/RDA					
Calories	33%	34.1$^{\alpha}$	36.5	35.6	35.6
Protein	33%	92.3	92.6	93.2	92.7
Vitamin A[a]	33%	63.8	65.2$^{\beta}$	57.0$^{\gamma}$	62.7
Vitamin C	33%	72.9	74.8$^{\beta}$	60.1$^{\gamma}$	70.4
Calcium	33%	57.4	58.1$^{\beta}$	55.3	57.1
Iron	33%	39.1$^{\alpha}$	41.2	41.7$^{\gamma}$	40.8
Average Percentage of Calories from:					
Total fat	≤ 30%[b]	31.4	32.2	32.6	32.1
Saturated fat	< 10%	9.8	10.0	10.3$^{\gamma}$	10.0
Average Amount					
Cholesterol	< 100 mg[c,d]	58	59	61	59
Sodium	< 767 mg[c,d]	1,379$^{\alpha}$	1,506	1,519$^{\gamma}$	1,474
Dietary fiber (g/1,000 calories)	14[c]	10	10	10	10
Number of Schools		**277**	**407**	**200**	**884**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).
[b]The 2010 *Dietary Guidelines for Americans* recommendation for the percentage of calories from total fat is 25–35%.
[c]Based on the 2010 *Dietary Guidelines for Americans.*
[d]Benchmarks are one-third of suggested maximum daily intake.

RDA = Recommended Dietary Allowances; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

$^{\alpha}$Difference between urban and suburban community types is significantly different from zero at the .05 level.
$^{\beta}$Difference between suburban and rural community types is significantly different from zero at the .05 level.
$^{\gamma}$Difference between urban and rural community types is significantly different from zero at the .05 level.

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Table E.45. Proportion of Schools *Offering* National School Lunch Program Lunches that Satisfied Each of the SMI Nutrition Standards and Related Benchmarks and Different Combinations of the Standards and Benchmarks, by Community Type

	Standard/ Recommendation	Community Type			All Schools
		Urban	Suburban	Rural	
SMI Nutrition Standards					
Calories	33% of 1989 REA	57.0[α]	70.4	61.9	64.5
Protein	33% of 1989 RDA	>97	>97	>97	>97
Vitamin A[a]	33% of 1989 RDA	94.9	94.7	89.8	93.5
Vitamin C	33% of 1989 RDA	91.0	89.3[β]	72.0[γ]	85.3
Calcium	33% of 1989 RDA	>97	>97	>97	>97
Iron	33% of 1989 RDA	80.7	84.7	89.1	84.8
Percentage of Calories from Total Fat	≤ 30%	36.9	34.7	32.9	34.9
Percentage of Calories from Saturated Fat	< 10%	52.6	53.5	46.4	51.4
Other Nutrition Benchmarks					
Percentage of Calories from Total Fat	25% – 35%[b]	73.0	71.2	66.2	70.4
Cholesterol	< 100 mg[b,c]	>97	>97	>97	98
Sodium	< 767 mg[b,c]	<3	<3	<3	<3
Dietary fiber (g/1,000 calories)	14[b]	4~	3~	4~	4
Combinations of Standards					
All SMI Standards		15.8	16.1	9.6	14.3
SMI Standards for all RDA Nutrients[c]		71.2	74.0	62.1	70.1
SMI Standards for all RDA Nutrients[d] and SMI Standard for Saturated Fat		41.9	39.9	30.8	38.1
SMI Standards for all RDA Nutrients,[d] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		35.9	32.2	25.2	31.4
Updated Standards for all RDA Nutrients,[e] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		29.9	35.7	25.5	31.4
Number of Schools		**277**	**407**	**200**	**884**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).
[b]Based on the 2010 *Dietary Guidelines* for Americans.
[c]Benchmarks are one-third of suggested maximum daily intake.

Table E.45 *(continued)*

[d]Includes protein, vitamin A, vitamin C, calcium and iron.
[e]Updated to reflect RDA values included in the Dietary Reference Intakes.

RDA = Recommended Dietary Allowances; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between urban and suburban community types is significantly different from zero at the .05 level.
[β]Difference between suburban and rural community types is significantly different from zero at the .05 level.
[γ]Difference between urban and rural community types is significantly different from zero at the .05 level.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table E.46. Average Calorie and Nutrient Content of National School Lunch Program Lunches *Served*, Relative to SMI Nutrition Standards and Related Benchmarks, by Community Type

		Community Type			
	Standard/ Recommendation	Urban	Suburban	Rural	All Schools
Average Percentage of 1989 REA/RDA					
Calories	33%	30.0$^{\alpha}$	31.9$^{\beta}$	33.8$^{\gamma}$	31.9
Protein	33%	83.9	84.3$^{\beta}$	89.9$^{\gamma}$	85.6
Vitamin A[a]	33%	44.5	47.8	49.0$^{\gamma}$	47.2
Vitamin C	33%	49.7	47.4	46.6	47.9
Calcium	33%	49.1$^{\alpha}$	51.3	52.7$^{\gamma}$	51.1
Iron	33%	36.0	37.5$^{\beta}$	40.3$^{\gamma}$	37.8
Average Percentage of Calories from:					
Total fat	≤ 30%[b]	31.1$^{\alpha}$	32.3	32.6$^{\gamma}$	32.1
Saturated fat	< 10%	9.8$^{\alpha}$	10.2	10.4$^{\gamma}$	10.1
Average Amount					
Cholesterol	< 100 mg[c,d]	51	55$^{\beta}$	58$^{\gamma}$	55
Sodium	< 767 mg[c,d]	1,260$^{\alpha}$	1,384$^{\beta}$	1,481$^{\gamma}$	1,375
Dietary fiber (g/1,000 calories)	14[c]	9$^{\alpha}$	9$^{\beta}$	10	9
Number of Schools		**276**	**406**	**198**	**880**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).
[b]The 2010 *Dietary Guidelines for Americans* recommendation for the percentage of calories from total fat is 25–35%.
[c]Based on the 2010 *Dietary Guidelines for Americans.*
[d]Benchmarks are one-third of suggested maximum daily intake.

RDA = Recommended Dietary Allowances; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between urban and suburban community types is significantly different from zero at the .05 level.
[β]Difference between suburban and rural community types is significantly different from zero at the .05 level.
[γ]Difference between urban and rural community types is significantly different from zero at the .05 level.

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Table E.47. Proportion of Schools *Serving* National School Lunch Program Lunches that Satisfied Each of the SMI Nutrition Standards and Related Benchmarks and Different Combinations of the Standards and Benchmarks, by Community Type

		Community Type			
	Standard/ Recommendation	Urban	Suburban	Rural	All Schools
SMI Nutrition Standards					
Calories	33% of 1989 REA	26.5	37.1$^{\beta}$	54.2$^{\gamma}$	38.7
Protein	33% of 1989 RDA	>97	>97	>97	>97
Vitamin A[a]	33% of 1989 RDA	69.2	77.0	80.9$^{\gamma}$	75.9
Vitamin C	33% of 1989 RDA	71.0	71.7$^{\beta}$	57.2	67.7
Calcium	33% of 1989 RDA	89.7$^{\alpha}$	94.9	96.4$^{\gamma}$~	93.8
Iron	33% of 1989 RDA	64.5$^{\alpha}$	74.9$^{\beta}$	85.8$^{\gamma}$	74.9
Percentage of Calories from Total Fat	≤ 30%	39.8	33.0	30.0	34.1
Percentage of Calories from Saturated Fat	< 10%	60.6	48.4	42.6$^{\gamma}$	50.3
Other Nutrition Benchmarks					
Percentage of Calories from Total Fat	25% – 35%[b]	77.9	69.3	71.3	72.2
Cholesterol	< 100 mg[b,c]	>97	>97	>97	>97
Sodium	< 767 mg[b,c]	<3	<3	<3	<3
Dietary fiber (g/1,000 calories)	14[b]	<3	<3	<3	<3
Combinations of Standards					
All SMI Standards		6.8	7.3	4.8~	6.5
SMI Standards for all RDA Nutrients[c]		39.6	50.0	42.8	45.2
SMI Standards for all RDA Nutrients[d] and SMI Standard for Saturated Fat		26.4	23.8	18.5	23.1
SMI Standards for all RDA Nutrients,[d] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		22.8	17.8	14.4	18.3
Updated Standards for all RDA Nutrients,[e] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		17.1	18.3	15.7	17.3
Number of Schools		**276**	**406**	**198**	**880**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).
[b]Based on the 2010 *Dietary Guidelines for Americans*.

Table E.47 *(continued)*

[c]Benchmarks are one-third of suggested maximum daily intake.
[d]Includes protein, vitamin A, vitamin C, calcium and iron.
[e]Updated to reflect RDA values included in the Dietary Reference Intakes.

RDA = Recommended Dietary Allowances; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between urban and suburban community types is significantly different from zero at the .05 level.
[β]Difference between suburban and rural community types is significantly different from zero at the .05 level.
[γ]Difference between urban and rural community types is significantly different from zero at the .05 level.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table E.48. Average Calorie and Nutrient Content of National School Lunch Program Lunches *Offered*, Relative to SMI Nutrition Standards and Related Benchmarks

	Standard/ Recommendation	Elementary School Students	Middle School Students	High School Students	All Students
Average Percentage of 1989 REA/RDA					
Calories	33%	37.0$^{\alpha}$	33.8	33.6$^{\gamma}$	35.2
Protein	33%	106.9$^{\alpha}$	72.0$^{\beta}$	67.9$^{\gamma}$	87.0
Vitamin A[a]	33%	70.7$^{\alpha}$	53.3$^{\beta}$	49.9$^{\gamma}$	60.3
Vitamin C	33%	72.2	76.9	75.0	74.1
Calcium	33%	64.0$^{\alpha}$	47.1	47.8$^{\gamma}$	55.2
Iron	33%	42.4$^{\alpha}$	36.8$^{\beta}$	39.0$^{\gamma}$	40.2
Average Percentage of Calories from:					
Total fat	≤ 30%[b]	31.5	32.0	32.3	31.9
Saturated fat	< 10%	9.9	10.0	9.8	9.9
Average Amount					
Cholesterol	< 100 mg[c,d]	55$^{\alpha}$	61	65$^{\gamma}$	60
Sodium	< 767 mg[c,d]	1,382$^{\alpha}$	1,551$^{\beta}$	1,648$^{\gamma}$	1,504
Dietary fiber (g/1,000 calories)	14[c]	10	10	10	10
Number of Schools		**318**	**287**	**279**	**884**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).
[b]The 2010 *Dietary Guidelines for Americans* recommendation for the percentage of calories from total fat is 25-35%.
[c]Based on the 2010 *Dietary Guidelines for Americans.*
[d]Benchmarks are one-third of suggested maximum daily intake.

RDA = Recommended Dietary Allowances; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between elementary and middle school students is significantly different from zero at the .05 level.
[β]Difference between middle and high school students is significantly different from zero at the .05 level.
[γ]Difference between elementary and high school students is significantly different from zero at the .05 level.

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Table E.49. Proportion of Schools *Offering* National School Lunch Program Lunches that Satisfied Each of the SMI Nutrition Standards and Related Benchmarks and Different Combinations of the Standards and Benchmarks

	Standard/ Recommendation	Elementary School Students	Middle School Students	High School Students	All Students
SMI Nutrition Standards					
Calories	33% of 1989 REA	76.4$^{\alpha}$	49.5	48.2$^{\gamma}$	61.7
Protein	33% of 1989 RDA	>97	>97	>97	>97
Vitamin A[a]	33% of 1989 RDA	>97$^{\alpha}$	88.7	89.4$^{\gamma}$	93.2
Vitamin C	33% of 1989 RDA	85.6$^{\alpha}$	91.4	95.1$^{\gamma}$	89.9
Calcium	33% of 1989 RDA	>97	>97	96.5~	>97
Iron	33% of 1989 RDA	92.3$^{\alpha}$	66.8	75.1$^{\gamma}$	81.6
Percentage of Calories from Total Fat	≤ 30%	37.3	37.3	34.7	36.4
Percentage of Calories from Saturated Fat	< 10%	51.6	53.0	60.3	54.8
Other Nutrition Benchmarks					
Percentage of Calories from Total Fat	25% – 35%[b]	73.1	73.5	71.4	72.6
Cholesterol	< 100 mg[b,c]	>97	>97	92	97
Sodium	< 767 mg[b,c]	<3	<3	<3	<3
Dietary fiber (g/1,000 calories)	14[b]	<3	4~	<3	3
Combinations of Standards					
All SMI Standards		19.7	13.5	9.8$^{\gamma}$	15.2
SMI Standards for all RDA Nutrients[c]		79.5$^{\alpha}$	55.9$^{\beta}$	68.7$^{\gamma}$	71.3
SMI Standards for all RDA Nutrients[d] and SMI Standard for Saturated Fat		42.0	33.7	44.1	41.1
SMI Standards for all RDA Nutrients,[d] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		33.9	30.0	34.2	33.2
Updated Standards for all RDA Nutrients,[e] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		35.1	39.7$^{\beta}$	23.6$^{\gamma}$	32.1
Number of Schools		**318**	**287**	**279**	**884**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).
[b]Based on the 2010 *Dietary Guidelines* for Americans.
[c]Benchmarks are one-third of suggested maximum daily intake.
[d]Includes protein, vitamin A, vitamin C, calcium and iron.

Table E.49 *(continued)*

[e]Updated to reflect RDA values included in the Dietary Reference Intakes.

RDA = Recommended Dietary Allowances; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between elementary and middle school students is significantly different from zero at the .05 level.
[β]Difference between middle and high school students is significantly different from zero at the .05 level.
[γ]Difference between elementary and high school students is significantly different from zero at the .05 level.

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Table E.50. Average Calorie and Nutrient Content of National School Lunch Program Lunches *Served*, Relative to SMI Nutrition Standards and Related Benchmarks

	Standard/ Recommendation	Elementary School Students	Middle School Students	High School Students	All Students
Average Percentage of 1989 REA/RDA					
Calories	33%	33.2$^{\alpha}$	28.6	27.8$^{\gamma}$	30.5
Protein	33%	99.2$^{\alpha}$	62.9$^{\beta}$	58.1$^{\gamma}$	78.2
Vitamin A[a]	33%	52.8$^{\alpha}$	33.8	33.8$^{\gamma}$	42.7
Vitamin C	33%	49.9	47.3	44.5$^{\gamma}$	47.6
Calcium	33%	57.1$^{\alpha}$	39.1	39.0$^{\gamma}$	47.5
Iron	33%	39.9$^{\alpha}$	32.5	33.3$^{\gamma}$	36.2
Average Percentage of Calories from:					
Total fat	≤ 30%[b]	31.2$^{\alpha}$	32.5$^{\beta}$	33.7$^{\gamma}$	32.3
Saturated fat	< 10%	9.9$^{\alpha}$	10.3	10.2	10.1
Average Amount					
Cholesterol	< 100 mg[c,d]	53	53	55	54
Sodium	< 767 mg[c,d]	1,298$^{\alpha}$	1,365$^{\beta}$	1,450$^{\gamma}$	1,362
Dietary fiber (g/1,000 calories)	14[c]	9$^{\alpha}$	9	9$^{\gamma}$	9
Number of Schools		**317**	**285**	**278**	**880**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).
[b]The 2010 *Dietary Guidelines for Americans* recommendation for the percentage of calories from total fat is 25–35%.
[c]Based on the 2010 *Dietary Guidelines for Americans.*
[d]Benchmarks are one-third of suggested maximum daily intake.

RDA = Recommended Dietary Allowances; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between elementary and middle school students is significantly different from zero at the .05 level.
[β]Difference between middle and high school students is significantly different from zero at the .05 level.
[γ]Difference between elementary and high school students is significantly different from zero at the .05 level.

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Table E.51. Proportion of Schools *Serving* National School Lunch Program Lunches that Satisfied Each of the SMI Nutrition Standards and Related Benchmarks and Different Combinations of the Standards and Benchmarks

	Standard/ Recommendation	Elementary School Students	Middle School Students	High School Students	All Students
SMI Nutrition Standards					
Calories	33% of 1989 REA	45.8$^{\alpha}$	17.1	19.3$^{\gamma}$	31.3
Protein	33% of 1989 RDA	>97	>97	>97	>97
Vitamin A[a]	33% of 1989 RDA	87.2$^{\alpha}$	48.3	42.5$^{\gamma}$	64.5
Vitamin C	33% of 1989 RDA	72.4	66.3	63.9	68.3
Calcium	33% of 1989 RDA	>97$^{\alpha}$	79.4	83.6$^{\gamma}$	90.3
Iron	33% of 1989 RDA	86.7$^{\alpha}$	40.9	47.5$^{\gamma}$	64.5
Percentage of Calories from Total Fat	≤ 30%	41.1$^{\alpha}$	30.1	22.2$^{\gamma}$	32.6
Percentage of Calories from Saturated Fat	< 10%	57.0$^{\alpha}$	46.0	45.1$^{\gamma}$	50.9
Other Nutrition Benchmarks					
Percentage of Calories from Total Fat	25% – 35%[b]	77.7	69.6	61.5$^{\gamma}$	70.7
Cholesterol	< 100 mg[b,c]	>97	>97	>97	>97
Sodium	< 767 mg[b,c]	<3	<3	<3	<3
Dietary fiber (g/1,000 calories)	14[b]	<3	<3	<3	<3
Combinations of Standards					
All SMI Standards		9.3$^{\alpha}$	3.4~	<3$^{\gamma}$	5.8
SMI Standards for all RDA Nutrients[c]		59.6$^{\alpha}$	16.0$^{\beta}$	26.3$^{\gamma}$	39.9
SMI Standards for all RDA Nutrients[d] and SMI Standard for Saturated Fat		32.4$^{\alpha}$	9.4	11.1$^{\gamma}$	20.8
SMI Standards for all RDA Nutrients,[d] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		26.0$^{\alpha}$	7.8	6.5$^{\gamma}$	15.9
Updated Standards for all RDA Nutrients,[e] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		23.5$^{\alpha}$	11.9$^{\beta}$	<3$^{\gamma}$	14.2
Number of Schools		**317**	**285**	**278**	**880**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).
[b]Based on the 2010 *Dietary Guidelines* for Americans.
[c]Benchmarks are one–third of suggested maximum daily intake.
[d]Includes protein, vitamin A, vitamin C, calcium and iron.

Table E.51 *(continued)*

[e]Updated to reflect RDA values included in the Dietary Reference Intakes.

RDA = Recommended Dietary Allowances; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between elementary and middle school students is significantly different from zero at the .05 level.
[β]Difference between middle and high school students is significantly different from zero at the .05 level.
[γ]Difference between elementary and high school students is significantly different from zero at the .05 level.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

APPENDIX F

SUPPLEMENTAL TABLES FOR CHAPTER 6

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TABLES

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Table F.1. Proportion of Schools *Offering* Healthiest-Choice Lunches that Satisfied Each of the SMI Nutrition Standards and Related Benchmarks and Different Combinations of the Standards and Benchmarks: *Lowest-Percent-Fat Lunches*

	Standard/ Recommendation	Elementary Schools	Middle Schools	High Schools	All Schools
SMI Nutrition Standards					
Calories	33% of 1989 REA	44.9	20.7	16.3	34.7
Protein	33% of 1989 RDA	>97	>97	>97	>97
Vitamin A[a]	33% of 1989 RDA	89.8	55.7	50.5	75.7
Vitamin C	33% of 1989 RDA	72.9	76.4	79.9	74.9
Calcium	33% of 1989 RDA	>97	>97	>97	>97
Iron	33% of 1989 RDA	81.9	60.9	66.5	75.0
Percentage of Calories from Total Fat	≤ 30%	87.6	91.8	89.9	88.8
Percentage of Calories from Saturated Fat	< 10%	89.3	93.4	92.6	90.7
Other Nutrition Benchmarks					
Percentage of Calories from Total Fat	25% – 35%[b]	33.0	22.4	24.6	29.4
Cholesterol	< 100 mg[b,c]	>97	>97	>97	>97
Sodium	< 767 mg[b,c]	12	7	7	10
Dietary Fiber (g/1,000 calories)	14[b]	17	20	23	19
Combinations of Standards					
All SMI Standards		23.4	11.6	6.6	17.9
SMI Standards for all RDA Nutrients[d]		55.3	32.8	33.2	46.8
SMI Standards for Total Fat and Saturated Fat		82.6	89.2	86.0	84.5
SMI Standards for All RDA Nutrients[d], and SMI Standard for Saturated Fat		49.7	30.7	31.1	42.5
SMI Standards for All RDA Nutrients[d], SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		19.1	3.8~	7.1	13.9
Updated Standards for All RDA Nutrients[e], SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		14.9	7.9	4.3~	11.5
Number of Schools		**318**	**287**	**279**	**884**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).

[b]Based on the 2010 *Dietary Guidelines for Americans.*

[c]Benchmarks are one-third of recommended daily limit.

[d]Includes protein, vitamin A, vitamin C, calcium and iron.

[e]Updated to reflect RDA values included in the *Dietary Reference Intakes.*

RDA = *Recommended Dietary Allowance*; REA = *Recommended Energy Allowance*; SMI = School Meals Initiative for Healthy Children.

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Table F.2. Proportion of Schools *Offering* Healthiest-Choice Lunches that Satisfied Each of the SMI Nutrition Standards and Related Benchmarks and Different Combinations of the Standards and Benchmarks: *Lowest-Percent-Saturated-Fat Lunches*

	Standard/ Recommendation	Elementary Schools	Middle Schools	High Schools	All Schools
SMI Nutrition Standards					
Calories	33% of 1989 REA	47.6	23.5	16.2	36.9
Protein	33% of 1989 RDA	>97	>97	>97	>97
Vitamin A[a]	33% of 1989 RDA	81.8	45.9	43.9	67.7
Vitamin C	33% of 1989 RDA	75.2	77.9	82.6	77.2
Calcium	33% of 1989 RDA	>97	91.4	91.5	96.6
Iron	33% of 1989 RDA	77.7	54.0	52.0	68.2
Percentage of Calories from Total Fat	≤ 30%	77.8	86.1	83.7	80.5
Percentage of Calories from Saturated Fat	< 10%	93.3	95.7~	95.9~	94.3
Other Nutrition Benchmarks					
Percentage of Calories from Total Fat	25% – 35%[b]	45.4	29.8	29.7	39.4
Cholesterol	< 100 mg[b,c]	>97	>97	>97	>97
Sodium	< 767 mg[b,c]	15	8	8	12
Dietary Fiber (g/1,000 calories)	14[b]	15	19	25	17
Combinations of Standards					
All SMI Standards		23.1	11.4	3.6~	17.0
SMI Standards for all RDA Nutrients[d]		51.2	26.4	21.3	40.7
SMI Standards for Total Fat and Saturated Fat		77.2	85.9	82.0	79.7
SMI Standards for All RDA Nutrients[d], and SMI Standard for Saturated Fat		48.2	24.9	20.7	38.4
SMI Standards for All RDA Nutrients[d], SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		21.9	3.5~	6.2	15.4
Updated Standards for All RDA Nutrients[e], SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		23.1	7.6	5.6	16.8
Number of Schools		**318**	**287**	**279**	**884**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).

[b]Based on the 2010 *Dietary Guidelines for Americans*.

[c]Benchmarks are one-third of recommended daily limit.

[d]Includes protein, vitamin A, vitamin C, calcium and iron.

[e]Updated to reflect RDA values included in the *Dietary Reference Intakes*.

RDA = *Recommended Dietary Allowance*; REA = *Recommended Energy Allowance*; SMI = School Meals Initiative for Healthy Children.

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Table F.3. Proportion of Schools *Offering* Healthiest-Choice Lunches that Satisfied Each of the SMI Nutrition Standards and Related Benchmarks and Different Combinations of the Standards and Benchmarks: *Lowest-Sodium Lunches*

	Standard/ Recommendation	Elementary Schools	Middle Schools	High Schools	All Schools
SMI Nutrition Standards					
Calories	33% of 1989 REA	37.7	16.0	10.6	28.3
Protein	33% of 1989 RDA	>97	>97	>97	>97
Vitamin A[a]	33% of 1989 RDA	78.1	36.7	41.9	63.3
Vitamin C	33% of 1989 RDA	76.8	83.9	84.4	79.6
Calcium	33% of 1989 RDA	>97	92.0	94.1	97.1
Iron	33% of 1989 RDA	64.7	31.5	32.4	52.2
Percentage of Calories from Total Fat	≤ 30%	59.1	68.8	68.1	62.7
Percentage of Calories from Saturated Fat	< 10%	72.2	71.3	71.9	72.0
Other Nutrition Benchmarks					
Percentage of Calories from Total Fat	25% – 35%[b]	59.1	50.6	54.1	56.6
Cholesterol	< 100 mg[b,c]	>97	96~	>97	97
Sodium	< 767 mg[b,c]	34	39	37	36
Dietary Fiber (g/1,000 calories)	14[b]	18	29	31	22
Combinations of Standards					
All SMI Standards		11.1	4.6	<3	8.1
SMI Standards for all RDA Nutrients[d]		42.0	16.1	17.0	32.3
SMI Standards for Total Fat and Saturated Fat		53.6	57.8	57.2	55.1
SMI Standards for All RDA Nutrients[d], and SMI Standard for Saturated Fat		29.8	11.6	14.6	23.4
SMI Standards for All RDA Nutrients[d], SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		16.7	3.3~	7.0	12.3
Updated Standards for All RDA Nutrients[e], SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		17.3	7.2	5.9	13.1
Number of Schools		**318**	**287**	**279**	**884**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).

[b]Based on the 2010 *Dietary Guidelines for Americans.*

[c]Benchmarks are one-third of recommended daily limit.

[d]Includes protein, vitamin A, vitamin C, calcium and iron.

[e]Updated to reflect RDA values included in the *Dietary Reference Intakes*.

RDA = *Recommended Dietary Allowance*; REA = *Recommended Energy Allowance*; SMI = School Meals Initiative for Healthy Children.

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between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table F.4. Proportion of Schools *Offering* Healthiest-Choice Lunches that Satisfied Each of the SMI Nutrition Standards and Related Benchmarks and Different Combinations of the Standards and Benchmarks: *Highest-Fiber Lunches*

	Standard/ Recommendation	Elementary Schools	Middle Schools	High Schools	All Schools
SMI Nutrition Standards					
Calories	33% of 1989 REA	78.9	56.6	52.2	69.4
Protein	33% of 1989 RDA	>97	>97	>97	>97
Vitamin A[a]	33% of 1989 RDA	93.8	78.3	78.6	87.9
Vitamin C	33% of 1989 RDA	82.1	85.9	86.9	83.8
Calcium	33% of 1989 RDA	>97	>97	>97	>97
Iron	33% of 1989 RDA	96.7~	81.9	87.8	92.3
Percentage of Calories from Total Fat	≤ 30%	50.6	61.3	55.5	53.5
Percentage of Calories from Saturated Fat	< 10%	73.5	72.3	72.8	73.1
Other Nutrition Benchmarks					
Percentage of Calories from Total Fat	25% – 35%[b]	62.1	55.9	59.6	60.5
Cholesterol	< 100 mg[b,c]	97~	>97	95~	96
Sodium	< 767 mg[b,c]	<3	<3	<3	2
Dietary Fiber (g/1,000 calories)	14[b]	37	55	50	43
Combinations of Standards					
All SMI Standards		24.7	15.7	13.5	20.8
SMI Standards for all RDA Nutrients[d]		74.4	60.2	62.9	69.5
SMI Standards for Total Fat and Saturated Fat		43.1	49.9	49.0	45.5
SMI Standards for All RDA Nutrients[d], and SMI Standard for Saturated Fat		53.5	45.0	43.6	50.0
SMI Standards for All RDA Nutrients[d], SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		32.0	22.2	25.3	28.9
Updated Standards for All RDA Nutrients[e], SMI Standard for Saturated Fat, and 200`5 *Dietary Guidelines* Standard for Total Fat		32.3	27.1	24.6	29.8
Number of Schools		**318**	**287**	**279**	**884**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).

[b]Based on the 2010 *Dietary Guidelines for Americans.*

[c]Benchmarks are one-third of recommended daily limit.

[d]Includes protein, vitamin A, vitamin C, calcium and iron.

[e]Updated to reflect RDA values included in the *Dietary Reference Intakes*.

RDA = *Recommended Dietary Allowance*; REA = *Recommended Energy Allowance*; SMI = School Meals Initiative for Healthy Children.

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between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table F.5. Proportion of Schools *Offering* Healthiest-Choice Lunches that Satisfied Each of the SMI Nutrition Standards and Related Benchmarks and Different Combinations of the Standards and Benchmarks: *Highest-Iron Lunches*

	Standard/ Recommendation	Elementary Schools	Middle Schools	High Schools	All Schools
SMI Nutrition Standards					
Calories	33% of 1989 REA	79.9	62.9	59.9	72.8
Protein	33% of 1989 RDA	>97	>97	>97	>97
Vitamin A[a]	33% of 1989 RDA	95.2	76.2	76.1	87.9
Vitamin C	33% of 1989 RDA	78.6	79.5	78.6	78.7
Calcium	33% of 1989 RDA	>97	>97	>97	>97
Iron	33% of 1989 RDA	>97	96.4~	96.0~	97.8
Percentage of Calories from Total Fat	≤ 30%	59.3	66.2	53.4	59.3
Percentage of Calories from Saturated Fat	< 10%	70.1	68.9	67.9	69.4
Other Nutrition Benchmarks					
Percentage of Calories from Total Fat	25% – 35%[b]	61.8	56.2	61.2	60.7
Cholesterol	< 100 mg[b,c]	96	>97	94	96
Sodium	< 767 mg[b,c]	<3	<3	<3	<3
Dietary Fiber (g/1,000 calories)	14[b]	10	15	12	11
Combinations of Standards					
All SMI Standards		29.4	20.8	15.6	25.1
SMI Standards for all RDA Nutrients[d]		75.6	62.5	62.0	70.5
SMI Standards for Total Fat and Saturated Fat		49.2	55.2	45.8	49.6
SMI Standards for All RDA Nutrients[d], and SMI Standard for Saturated Fat		53.3	45.5	41.7	49.6
SMI Standards for All RDA Nutrients[d], SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		32.2	19.4	26.0	28.7
Updated Standards for All RDA Nutrients[e], SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		33.0	24.4	22.6	29.3
Number of Schools		**318**	**287**	**279**	**884**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).

[b]Based on the 2010 *Dietary Guidelines for Americans*.

[c]Benchmarks are one-third of recommended daily limit.

[d]Includes protein, vitamin A, vitamin C, calcium and iron.

[e]Updated to reflect RDA values included in the *Dietary Reference Intakes*.

RDA = *Recommended Dietary Allowance*; REA = *Recommended Energy Allowance*; SMI = School Meals Initiative for Healthy Children.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages

between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table F.6. Foods Offered in Healthiest-Choice Lunches All NSLP Lunches

	Percent of Daily Lunch Menus					
	Lowest–Percent Fat Lunches	Lowest–Percent Saturated–Fat Lunches	Highest–Dietary Fiber Lunches	Lowest–Sodium Lunches	Highest–Iron Lunches	All NSLP Lunches
Milk:						
1% fat, unflavored	2	2	3	13	1	73
1% fat, flavored	24	24	55	0	54	63
Skim, unflavored	44	44	0	24	2	47
Skim, flavored	28	28	38	37	38	39
2% fat, unflavored	0	0	1	21	1	30
2% fat, flavored	1	1	3	0	3	3
Whole milk, unflavored	0	0	0	3	0	3
Whole milk, flavored	0	0	0	0	0	1
Entrees:						
Entree salads (chef's salads)	2	2	11	4	4	30
Peanut butter sandwiches	1	9	22	15	7	28
Sandwiches with plain poultry	12	8	4	8	10	23
Pizza without meat (without vegetables)	9	3	4	4	6	21
Pizza with meat (without vegetables)	5	3	6	2	9	20
Sandwiches with breaded/fried poultry	4	10	4	4	5	18
Chicken nuggets	4	9	3	6	3	16
Cheeseburgers	1	1	2	0	5	15
Sausage sandwiches (not including frankfurters and corn dogs)	0	0	0	0	0	14
Sandwiches with plain meat	3	1	2	1	3	13
Hamburgers	1	1	1	6	3	10

Table F.6 *(continued)*

	Percent of Daily Lunch Menus					
	Lowest–Percent Fat Lunches	Lowest–Percent Saturated–Fat Lunches	Highest–Dietary Fiber Lunches	Lowest–Sodium Lunches	Highest–Iron Lunches	All NSLP Lunches
Bag lunches and pre–plated meals	1	1	1	1	1	9
Sandwiches with only cheese	2	1	2	1	1	9
Beef/pork sandwiches (not including hamburgers)	5	4	2	2	3	8
Hot dogs	1	2	1	1	2	8
Burritos	4	2	5	2	5	7
Yogurt low–fat/fat–free	5	4	0	5	0	7
Cheese (as an entrée)	0	0	0	0	1	5
Sandwiches with tuna salad	2	0	0	0	1	5
Self–serve sandwich/deli bar	1	1	1	0	2	5
Number of Daily Menus						**4,230**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Ad hoc analysis.

Note: The percentage of daily lunch menus for all NSLP lunches considers multiple entrees per menu for schools that offered more than one entree choice. The percentage of daily lunch menus for the healthiest–choice lunches includes only one entree per menu day for each school. The analysis for each nutrient is based on the healthiest menu choices offered by each school.

Table F.7. Average Calorie and Nutrient Content of Healthiest-Choice Lunches *Offered* to Students, Relative to SMI Nutrition Standards and Related Benchmarks: *Lowest-Percent-Fat Lunches*

	Standard/ Recommendation	Elementary Schools	Middle Schools	High Schools	All Schools
Average Percentage of 1989 REA/RDA					
Calories	33%	32.8	29.5	28.1	31.3
Protein	33%	102.0	68.5	64.3	88.3
Vitamin A[a]	33%	59.1	41.0	40.2	52.0
Vitamin C	33%	69.3	84.4	73.3	72.8
Calcium	33%	63.0	44.9	44.5	56.0
Iron	33%	40.9	36.2	37.0	39.3
Average Percentage of Calories from:					
Total Fat	≤ 30%[b]	23.0	20.6	20.7	22.1
Saturated Fat	< 10%	7.6	6.9	6.9	7.3
Average Amount					
Cholesterol	< 100 mg[c,d]	47	47	50	47
Sodium	< 767 mg[c,d]	1,152	1,251	1,279	1,196
Dietary Fiber (g/1,000 calories)	14[c]	11	12	12	11
Number of Schools		**318**	**287**	**279**	**884**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).

[b]The 2010 *Dietary Guidelines for Americans* recommendation for the percentage of calories from total fat is 25–35%.

[c]Based on the 2010 *Dietary Guidelines for Americans*.

[d]Benchmarks are one-third of recommended daily limit.

SMI = School Meals Initiative for Healthy Children; REA = *Recommended Energy Allowance*; RDA = *Recommended Dietary Allowance*.

Table F.8. Average Calorie and Nutrient Content of Healthiest-Choice Lunches *Offered* to Students, Relative to SMI Nutrition Standards and Related Benchmarks: *Lowest-Percent-Saturated-Fat Lunches*

	Standard/ Recommendation	Elementary Schools	Middle Schools	High Schools	All Schools
Average Percentage of 1989 REA/RDA					
Calories	33%	33.2	29.6	27.9	31.5
Protein	33%	99.2	67.2	62.4	85.9
Vitamin A[a]	33%	56.8	39.2	38.6	49.9
Vitamin C	33%	73.9	88.2	80.3	77.8
Calcium	33%	57.1	39.9	39.4	50.4
Iron	33%	39.8	34.6	34.9	37.9
Average Percentage of Calories from:					
Total Fat	≤ 30%[b]	25.1	22.8	22.5	24.1
Saturated Fat	< 10%	6.8	6.1	6.0	6.5
Average Amount					
Cholesterol	< 100 mg[c,d]	41	49	48	44
Sodium	< 767 mg[c,d]	1,091	1,208	1,191	1,132
Dietary Fiber (g/1,000 calories)	14[c]	11	12	12	11
Number of Schools		**318**	**287**	**279**	**884**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).

[b]The 2010 *Dietary Guidelines for Americans* recommendation for the percentage of calories from total fat is 25–35%.

[c]Based on the 2010 *Dietary Guidelines for Americans*.

[d]Benchmarks are one-third of recommended daily limit.

SMI = School Meals Initiative for Healthy Children; REA = *Recommended Energy Allowance*; RDA = *Recommended Dietary Allowance*.

Table F.9. Average Calorie and Nutrient Content of Healthiest-Choice Lunches *Offered* to Students, Relative to SMI Nutrition Standards and Related Benchmarks: *Lowest-Sodium Lunches*

	Standard/ Recommendation	Elementary Schools	Middle Schools	High Schools	All Schools
Average Percentage of 1989 REA/RDA					
Calories	33%	32.0	27.7	26.2	30.0
Protein	33%	96.9	64.3	59.3	83.4
Vitamin A[a]	33%	54.4	36.8	37.1	47.7
Vitamin C	33%	80.9	95.6	85.1	84.3
Calcium	33%	59.0	41.4	41.4	52.3
Iron	33%	36.1	30.3	30.1	33.8
Average Percentage of Calories from:					
Total Fat	≤ 30%[b]	28.5	27.2	27.5	28.1
Saturated Fat	< 10%	8.9	8.6	8.8	8.8
Average Amount					
Cholesterol	< 100 mg[c,d]	45	52	52	48
Sodium	< 767 mg[c,d]	932	918	928	928
Dietary Fiber (g/1,000 calories)	14[c]	11	12	13	12
Number of Schools		**318**	**287**	**279**	**884**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).

[b]The 2010 *Dietary Guidelines for Americans* recommendation for the percentage of calories from total fat is 25–35%.

[c]Based on the 2010 *Dietary Guidelines for Americans*.

[d]Benchmarks are one-third of recommended daily limit.

SMI = School Meals Initiative for Healthy Children; REA = *Recommended Energy Allowance*; RDA = *Recommended Dietary Allowance*.

Table F.10. Average Calorie and Nutrient Content of Healthiest-Choice Lunches *Offered* to Students, Relative to SMI Nutrition Standards and Related Benchmarks: *Highest-Fiber Lunches*

	Standard/ Recommendation	Elementary Schools	Middle Schools	High Schools	All Schools
Average Percentage of 1989 REA/RDA					
Calories	33%	38.8	35.4	34.7	37.3
Protein	33%	109.8	74.5	69.9	95.3
Vitamin A[a]	33%	72.8	55.6	55.9	66.3
Vitamin C	33%	77.1	86.4	82.0	79.8
Calcium	33%	63.1	47.2	47.8	57.2
Iron	33%	47.4	41.5	42.9	45.4
Average Percentage of Calories from:					
Total Fat	≤ 30%[b]	30.2	29.2	29.8	29.9
Saturated Fat	< 10%	9.1	9.0	9.0	9.1
Average Amount					
Cholesterol	< 100 mg[c,d]	45	52	53	48
Sodium	< 767 mg[c,d]	1,308	1,505	1,553	1,393
Dietary Fiber (g/1,000 calories)	14[c]	13	14	14	14
Number of Schools		**318**	**287**	**279**	**884**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).

[b]The 2010 *Dietary Guidelines for Americans* recommendation for the percentage of calories from total fat is 25–35%.

[c]Based on the 2010 *Dietary Guidelines for Americans*.

[d]Benchmarks are one-third of recommended daily limit.

SMI = School Meals Initiative for Healthy Children; REA = *Recommended Energy Allowance*; RDA = Recommended Dietary Allowance.

Table F.11. Average Calorie and Nutrient Content of Healthiest-Choice Lunches *Offered* to Students, Relative to SMI Nutrition Standards and Related Benchmarks: *Highest-Iron Lunches*

	Standard/ Recommendation	Elementary Schools	Middle Schools	High Schools	All Schools
Average Percentage of 1989 REA/RDA					
Calories	33%	38.6	36.2	35.9	37.7
Protein	33%	114.5	79.7	75.8	100.4
Vitamin A[a]	33%	68.8	51.7	52.2	62.4
Vitamin C	33%	72.4	75.8	68.8	72.2
Calcium	33%	64.8	48.7	49.9	58.9
Iron	33%	53.6	49.0	51.4	52.3
Average Percentage of Calories from:					
Total Fat	≤ 30%[b]	29.2	28.2	29.2	29.0
Saturated Fat	< 10%	9.3	9.2	9.4	9.3
Average Amount					
Cholesterol	< 100 mg[c,d]	54	59	64	57
Sodium	< 767 mg[c,d]	1,430	1,684	1,805	1,552
Dietary Fiber (g/1,000 calories)	14[c]	11	11	11	11
Number of Schools		**318**	**287**	**279**	**884**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).

[b]The 2010 *Dietary Guidelines for Americans* recommendation for the percentage of calories from total fat is 25–35%.

[c]Based on the 2010 *Dietary Guidelines for Americans.*

[d]Benchmarks are one-third of recommended daily limit.

SMI = School Meals Initiative for Healthy Children; REA = *Recommended Energy Allowance*; RDA = *Recommended Dietary Allowance*.

APPENDIX G

SUPPLEMENTAL TABLES FOR CHAPTER 7

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TABLES

Table G.1. Average Calorie and Nutrient Content of School Breakfast Program Breakfasts *Offered*

	Elementary Schools	Middle Schools	High Schools	All Schools
Average Amount				
Calories	458	509	520	480
Macronutrients				
Total fat (g)	11	13	14	12
Saturated fat (g)	4	5	5	4
Monounsaturated fat (g)	4	5	5	4
Polyunsaturated fat (g)	2	3	3	2
Linoleic acid (g)	2	2	2	2
Alpha-linolenic acid (g)	0.2	0.2	0.2	0.2
Carbohydrate (g)	75	82	83	78
Protein (g)	16	17	17	16
Vitamins				
Vitamin A (mcg RE)	278	279	282	279
Vitamin A (mcg RAE)	279	283	287	282
Vitamin C (mg)	32	35	36	34
Vitamin E (mg AT)	1.0	1.2	1.2	1.1
Vitamin B_6 (mg)	0.6	0.6	0.6	0.6
Vitamin B_{12} (mcg)	2.2	2.1	2.1	2.1
Folate (mcg DFE)	188	191	195	190
Niacin (mg)	5	6	6	5
Riboflavin (mg)	0.9	0.9	0.9	0.9
Thiamin (mg)	0.5	0.6	0.6	0.6
Minerals				
Calcium (mg)	428	443	439	433
Iron (mg)	5.0	5.1	5.2	5.1
Magnesium (mg)	66	68	70	67
Phosphorus (mg)	403	429	430	413
Potassium (mg)	726	765	775	743
Sodium (mg)	549	628	644	583
Zinc (mg)	3.3	3.3	3.3	3.3
Other Dietary Components				
Cholesterol (mg)	40	45	46	42
Dietary fiber (g)	3	3	3	3
Dietary fiber (g/1,000 calories)	7	6	6	6
Average Percentage of Calories from:				
Total fat	22.2	23.0	23.6	22.6
Saturated fat	8.2	8.3	8.4	8.2
Monounsaturated fat	7.9	8.5	8.8	8.2
Polyunsaturated fat	4.4	4.4	4.6	4.4
Linoleic acid	3.9	3.9	4.1	4.0
Alpha-linolenic acid	0.4	0.4	0.4	0.4
Carbohydrate	65.5	64.9	64.5	65.2
Protein	14.0	13.7	13.5	13.8
Number of Schools	**282**	**264**	**257**	**803**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents.

Table G.2. Average Calorie and Nutrient Content of School Breakfast Program Breakfasts *Offered,* Relative to SMI Nutrition Standards and Related Benchmarks

	Standard/ Recommendation	Elementary Schools	Middle Schools	High Schools	All Schools
Average Percentage of 1989 REA/RDA					
Calories	25%	23.3$^{\alpha}$	21.8$^{\beta}$	20.6$^{\gamma}$	22.5
Protein	25%	56.6$^{\alpha}$	38.4$^{\beta}$	35.0$^{\gamma}$	48.9
Vitamin A[a]	25%	42.9$^{\alpha}$	31.3	31.3$^{\gamma}$	38.4
Vitamin C	25%	71.1	70.1$^{\beta}$	62.7$^{\gamma}$	69.2
Calcium	25%	51.4$^{\alpha}$	37.5	36.6$^{\gamma}$	45.9
Iron	25%	48.5$^{\alpha}$	38.5	38.5$^{\gamma}$	44.6
Average Percentage of Calories from:					
Total Fat	≤ 30%[b]	22.2$^{\alpha}$	23.0	23.7$^{\gamma}$	22.6
Saturated Fat	< 10%	8.2	8.3	8.4	8.2
Average Amount					
Cholesterol	< 75 mg[c,d]	40$^{\alpha}$	45	46$^{\gamma}$	42
Sodium	< 575 mg[c,d]	549$^{\alpha}$	628	644$^{\gamma}$	583
Dietary Fiber (g/1,000 calories)	14[c]	7	6	6	6
Number of Schools		**282**	**264**	**257**	**803**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).
[b]The 2010 *Dietary Guidelines for Americans* recommendation for the percentage of calories from total fat is 25–35%.
[c]Based on the 2010 *Dietary Guidelines for Americans*.
[d]Benchmarks are one-quarter of suggested maximum daily intake.

RDA = Recommended Dietary Allowance; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between elementary and middle schools is significantly different from zero at the .05 level.
[β]Difference between middle and high schools is significantly different from zero at the .05 level.
[γ]Difference between elementary and high schools is significantly different from zero at the .05 level.

Table G.3. Proportion of Schools *Offering* School Breakfast Program Breakfasts that Satisfied Each of the SMI Nutrition Standards and Related Benchmarks and Different Combinations of the Standards and Benchmarks

	Standard/ Recommendation	Elementary Schools	Middle Schools	High Schools	All Schools
SMI Nutrition Standards					
Calories	25% of 1989 REA	24.3$^{\alpha}$	15.6	12.1$^{\gamma}$	20.2
Protein	25% of 1989 RDA	>97	>97$^{\beta}$	96.1$^{\gamma}$~	>97
Vitamin A	25% of 1989 RDA[a]	>97$^{\alpha}$	84.4	79.0$^{\gamma}$	92.3
Vitamin C	25% of 1989 RDA	96.9~	>97	>97	97.0
Calcium	25% of 1989 RDA	>97	>97	>97	>97
Iron	25% of 1989 RDA	93.8	89.7	86.0$^{\gamma}$	91.5
Percentage of Calories from Total Fat	≤ 30%	94.6	93.7$^{\beta}$	88.5$^{\gamma}$	93.2
Percentage of Calories from Saturated Fat	< 10%	81.1	84.8	78.8	81.3
Other Nutrition Benchmarks					
Percentage of Calories from Total Fat	25% – 35%[b]	25.3$^{\alpha}$	35.3	36.6$^{\gamma}$	29.4
Cholesterol	< 75 mg[b,c]	93	91	88	91
Sodium	< 575 mg[b,c]	70$^{\alpha}$	50	49$^{\gamma}$	62
Dietary Fiber (g/1,000 calories)	14[b]	<3	<3	<3	<3
Combinations of Standards					
All SMI Standards		19.0$^{\alpha}$	10.7$^{\beta}$	5.5$^{\gamma}$	14.7
SMI Standards for all RDA Nutrients[c]		90.6$^{\alpha}$	78.0	72.6$^{\gamma}$	84.6
SMI Standards for all RDA Nutrients[d] and SMI Standard for Saturated Fat		75.3	67.5	59.2$^{\gamma}$	70.6
SMI Standards for all RDA Nutrients[d] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		12.7	18.3	13.5	13.9
Updated Standards for all RDA Nutrients[e] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		9.0	12.2$^{\beta}$	4.8~	8.7
Number of Schools		**282**	**264**	**257**	**803**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).
[b]Based on the 2010 *Dietary Guidelines for Americans*.
[c]Benchmarks are one-quarter of suggested maximum daily intake.
[d]Includes protein, vitamin A, vitamin C, calcium and iron.
[e]Updated to reflect RDA values included in the Dietary Reference Intakes.

Table G.3 *(continued)*

RDA = Recommended Dietary Allowance; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between elementary and middle schools is significantly different from zero at the .05 level.
[β]Difference between middle and high schools is significantly different from zero at the .05 level.
[γ]Difference between elementary and high schools is significantly different from zero at the .05 level.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table G.4. Proportion of Schools Meeting SMI Nutrition Standards and Related Nutrition Benchmarks, and Distribution of Schools Not Meeting Standards, School Breakfast Program Breakfasts *Offered*

Percent Meeting/Above/Below Standard	Standard/ Recommendation	Percentage of Schools			
		Elementary Schools	Middle Schools	High Schools	All Schools
SMI Nutrition Standards					
Calories	25% of 1989 REA				
Percent Meeting Standard		24.3[α]	15.6	12.1[γ]	20.2
Percent Below Standard					
>0 to ≤5%		11.7	6.2	3.5~	9.0
>5 to ≤10%		14.3	9.8	7.9	12.2
>10 to ≤15%		18.3	13.6	6.5	15.0
>15 to ≤20%		11.2	14.3	14.4	12.4
>20 to ≤25%		8.6	13.5	19.0	11.6
>25%		11.6	27.0	36.6	19.6
Vitamin A[a]	25% of 1989 RDA				
Percent Meeting Standard		99.1[α]~	84.4	78.9[γ]	92.3
Percent Below Standard					
>0 to ≤5%		0.9~	6.8	4.6~	2.7
>5 to ≤10%		0.0~	4.5~	6.1	2.1
>10 to ≤15%		0.0~	1.6~	3.4~	1.0~
>15%		0.0~	2.7~	6.9	1.9~
Iron	25% of 1989 RDA				
Percent Meeting Standard		93.8	89.7	86.0[γ]	91.5
Percent Below Standard					
>0 to ≤5%		1.2~	1.4~	1.7~	1.3~
>5 to ≤10%		0.1~	1.1~	2.2~	0.7~
>10 to ≤15%		2.1~	3.0~	2.6~	2.4
>15%		0.8~	4.8	7.6	4.0
Percentage of Calories from Total Fat	≤ 30%				
Percent Meeting Standard		94.6	93.7[β]	88.5[γ]	93.2
Percent Above Standard					
>0 to ≤5%		1.3~	2.3~	5.5	2.3
>5 to ≤10%		2.7~	2.0~	1.7~	2.4
>10%		1.4~	1.9~	4.3~	2.1~
Percentage of Calories from Saturated Fat	< 10%				
Percent Meeting Standard		81.1	84.8	78.8	81.3
Percent Above Standard					
>0 to ≤5%		7.8	6.0	6.1	7.1
>5 to ≤10%		4.2~	2.1~	3.6~	3.7
>10 to ≤15%		1.4~	2.3~	4.9~	2.3
>15%		5.5	4.8~	6.7	5.6

Table G.4 *(continued)*

Percent Meeting/Above/Below Standard	Standard/ Recommendation	Percentage of Schools: Elementary Schools	Middle Schools	High Schools	All Schools
Other Nutrition Benchmarks					
Percentage of Calories from Total Fat	25% – 35%[a]				
Percent Meeting Standard		25.3[α]	35.3	36.6[γ]	29.4
Percent Above Standard		1.0~	0.6~	3.5~	1.5~
Percent Below Standard					
>0 to ≤5%		8.7	7.7	7.7	8.3
>5 to ≤10%		10.6	11.8	8.5	10.4
>10 to ≤15%		10.6	8.8	9.8	10.1
>15 to ≤20%		9.2	6.2	10.3	8.9
>20 to ≤25%		11.6	11.0	5.2[γ]	10.2
>25%		23.1	18.5	18.4	21.3
Sodium	< 575 mg[a,b]				
Percent Meeting Standard		69.6[α]	50.4	48.6[γ]	61.8
Percent Above Standard					
>0 to ≤5%		6.0	11.8	6.1	7.1
>5 to ≤10%		6.7	7.1	9.4	7.3
>10 to ≤15%		3.3~	5.2	4.4~	3.9
>15 to ≤20%		3.0~	5.3	3.8~	3.6
>20 to ≤25%		1.7~	1.3~	3.3~	2.0
>25 to ≤50%		5.1	7.9	13.3	7.3
>50%		4.6~	11.0	10.9	7.1
Dietary Fiber (g/1,000 calories)	14[a]				
Percent Meeting Standard		0.1~	0.0~	0.0~	0.1~
Percent Below Standard					
>0 to ≤25%		5.4	5.4	5.2	5.3
>25 to ≤50%		30.1	29.3	30.8	30.1
>50%		64.4	65.3	64.1	64.5
Number of Schools		**282**	**264**	**257**	**803**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Protein, calcium, and cholesterol are not included in the table because virtually all schools met the relevant standard/benchmark.

[a]Based on the 2010 *Dietary Guidelines for Americans*.
[b]Benchmarks are one-quarter of suggested maximum daily intake.

RDA = Recommended Dietary Allowance; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between elementary and middle schools is significantly different from zero at the .05 level.
[β]Difference between middle and high schools is significantly different from zero at the .05 level.
[γ]Difference between elementary and high schools is significantly different from zero at the .05 level.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table G.5. Average Calorie and Nutrient Content of School Breakfast Program Breakfasts *Served*

	Elementary Schools	Middle Schools	High Schools	All Schools
Average Amount				
Calories	434	503	504	461
Macronutrients				
Total fat (g)	12	15	15	13
Saturated fat (g)	4	5	5	5
Monounsaturated fat (g)	4	6	6	5
Polyunsaturated fat (g)	2	3	3	2
Linoleic acid (g)	2	3	3	2
Alpha-linolenic acid (g)	0.2	0.2	0.2	0.2
Carbohydrate (g)	69	77	77	72
Protein (g)	15	17	17	16
Vitamins				
Vitamin A (mcg RE)	245	241	234	242
Vitamin A (mcg RAE)	248	244	237	245
Vitamin C (mg)	28	32	33	30
Vitamin E (mg AT)	0.9	1.2	1.1	1.0
Vitamin B_6 (mg)	0.5	0.5	0.5	0.5
Vitamin B_{12} (mcg)	1.9	1.7	1.6	1.8
Folate (mcg DFE)	163	158	160	162
Niacin (mg)	5	5	5	5
Riboflavin (mg)	0.8	0.8	0.8	0.8
Thiamin (mg)	0.5	0.5	0.5	0.5
Minerals				
Calcium (mg)	382	390	373	382
Iron (mg)	4.5	4.5	4.6	4.5
Magnesium (mg)	59	63	62	61
Phosphorus (mg)	378	414	402	389
Potassium (mg)	660	706	699	676
Sodium (mg)	569	687	703	618
Zinc (mg)	3.0	2.9	2.9	2.9
Other Dietary Components				
Cholesterol (mg)	44	54	56	48
Dietary fiber (g)	3	3	3	3
Dietary fiber (g/1,000 calories)	6	6	6	6
Average Percentage of Calories from:				
Total fat	23.8	26.0	26.6	24.8
Saturated fat	8.6	8.9	9.1	8.7
Monounsaturated fat	8.7	10.1	10.3	9.3
Polyunsaturated fat	4.6	4.9	5.0	4.7
Linoleic acid	4.1	4.4	4.4	4.2
Alpha-linolenic acid	0.4	0.4	0.4	0.4
Carbohydrate	63.8	61.7	61.4	63.0
Protein	13.9	13.5	13.3	13.7
Number of Schools	**282**	**263**	**257**	**802**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents.

Table G.6. Average Calorie and Nutrient Content of School Breakfast Program Breakfasts *Served* to Students, Relative to SMI Nutrition Standards and Related Benchmarks

	Standard/ Recommendation	Elementary Schools	Middle Schools	High Schools	All Schools
Average Percentage of 1989 REA/RDA					
Calories	25%	22.1	21.5	19.9$^{\gamma}$	21.6
Protein	25%	53.7$^{\alpha}$	37.9$^{\beta}$	33.7$^{\gamma}$	46.8
Vitamin A[a]	25%	37.9$^{\alpha}$	27.1	26.0$^{\gamma}$	33.5
Vitamin C	25%	62.5	63.7	58.1	61.8
Calcium	25%	46.0$^{\alpha}$	33.1	31.1$^{\gamma}$	40.6
Iron	25%	43.7$^{\alpha}$	34.0	33.8$^{\gamma}$	39.9
Average Percentage of Calories from:					
Total Fat	≤ 30%[b]	23.8$^{\alpha}$	26.0	26.6$^{\gamma}$	24.8
Saturated Fat	< 10%	8.6$^{\alpha}$	8.9	9.1$^{\gamma}$	8.7
Average Amount					
Cholesterol	< 75 mg[c,d]	44$^{\alpha}$	54	56$^{\gamma}$	48
Sodium	< 575 mg[c,d]	569$^{\alpha}$	687	703$^{\gamma}$	618
Dietary Fiber (g/ 1,000 calories)	14[c]	6$^{\alpha}$	6	6$^{\gamma}$	6
Number of Schools		**282**	**263**	**257**	**802**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Estimates are based on a weighted nutrient analysis of menu data for one week. A weighted nutrient analysis takes into account the frequency with which each menu item is selected by students. The methodology is fully described in Appendix D of this report.

[a]In retinol equivalents (RE).
[b]The 2010 *Dietary Guidelines for Americans* recommendation for the percentage of calories from total fat is 25–35%.
[c]Based on the 2010 *Dietary Guidelines for Americans.*
[d]Benchmarks are one-quarter of suggested maximum daily intake.

RDA = Recommended Dietary Allowance; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children

$^{\alpha}$Difference between elementary and middle schools is significantly different from zero at the .05 level.
$^{\beta}$Difference between middle and high schools is significantly different from zero at the .05 level.
$^{\gamma}$Difference between elementary and high schools is significantly different from zero at the .05 level.

Table G.7. Proportion of Schools *Serving* School Breakfast Program Breakfasts that Satisfied Each of the SMI Nutrition Standards and Related Benchmarks and Different Combinations of the Standards and Benchmarks

	Standard/ Recommendation	Elementary Schools	Middle Schools	High Schools	All Schools
SMI Nutrition Standards					
Calories	25% of 1989 REA	23.1$^{\alpha}$	15.1	10.3$^{\gamma}$	19.0
Protein	25% of 1989 RDA	>97$^{\alpha}$	93.4$^{\beta}$	81.6$^{\gamma}$	94.4
Vitamin A[a]	25% of 1989 RDA	89.7$^{\alpha}$	47.9	49.6$^{\gamma}$	73.9
Vitamin C	25% of 1989 RDA	94.9	93.9	91.8	94.1
Calcium	25% of 1989 RDA	>97$^{\alpha}$	81.0	75.7$^{\gamma}$	90.7
Iron	25% of 1989 RDA	92.2$^{\alpha}$	75.4	79.6$^{\gamma}$	86.6
Percentage of Calories from Total Fat	≤ 30%	88.6$^{\alpha}$	81.6	78.2$^{\gamma}$	85.2
Percentage of Calories from Saturated Fat	< 10%	78.4	74.6	67.6$^{\gamma}$	75.5
Other Nutrition Benchmarks					
Percentage of Calories from Total Fat	25% – 35%[b]	33.1$^{\alpha}$	54.0	55.6$^{\gamma}$	41.5
Cholesterol	< 75 mg[b,c]	91$^{\alpha}$	81	79$^{\gamma}$	87
Sodium	< 575 mg[b,c]	53$^{\alpha}$	37	36$^{\gamma}$	46
Dietary fiber (g/1,000 calories)	14[b]	<3	<3	<3	<3
Combinations of Standards					
All SMI Standards		14.6$^{\alpha}$	6.8	3.2$^{\gamma}$~	10.9
SMI Standards for all RDA Nutrients[c]		81.6$^{\alpha}$	42.1	37.7$^{\gamma}$	65.5
SMI Standards for all RDA Nutrients[d] and SMI Standard for Saturated Fat		65.7$^{\alpha}$	33.4	26.2$^{\gamma}$	51.8
SMI Standards for all RDA Nutrients[d] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		11.9	12.6	10.3	11.7
Updated Standards for All RDA Nutrients[e] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		6.5	9.3	4.8~	6.7
Number of Schools		**282**	**263**	**257**	**802**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Estimates are based on a weighted nutrient analysis of menu data for one week. A weighted nutrient analysis takes into account the frequency with which each menu item is selected by students. One school did not provide adequate data on the number of servings selected for each menu item and was excluded from the weighted analysis. The methodology is fully described in Appendix D of this report.

Table G.7 *(continued)*

[a]In retinol equivalents (RE).
[b]Based on the 2010 *Dietary Guidelines for Americans*.
[c]Benchmarks are one-quarter of suggested maximum daily intake.
[d]Includes protein, vitamin A, vitamin C, calcium and iron.
[e]Updated to reflect RDA values included in the Dietary Reference Intakes.

RDA = Recommended Dietary Allowance; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between elementary and middle schools is significantly different from zero at the .05 level.
[β]Difference between middle and high schools is significantly different from zero at the .05 level.
[γ]Difference between elementary and high schools is significantly different from zero at the .05 level.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table G.8. Proportion of Schools Meeting SMI Nutrition Standards and Related Nutrition Benchmarks, and Distribution of Schools Not Meeting Standards, School Breakfast Program Breakfasts *Served*

Percent Meeting/Below/Above Standard	Standard/ Recommendation	Percentage of Schools			
		Elementary Schools	Middle Schools	High Schools	All Schools
SMI Nutrition Standards					
Calories	25% of 1989 REA				
Percent Meeting Standard		23.1[α]	15.1	10.3[γ]	19.0
Percent Below Standard					
>0 to ≤5%		7.8	2.4~	5.2	6.3
>5 to ≤10%		14.8	6.3	7.9	11.9
>10 to ≤15%		10.9	14.2	5.6	10.4
>15 to ≤20%		10.6	9.9	12.8	10.9
>20 to ≤25%		12.9	16.4	17.8	14.5
>25%		20.1	35.7	40.5	27.0
Protein	25% of 1989 RDA				
Percent Meeting Standard		99.0[α]~	93.4[β]	81.6[γ]	94.4
Percent Below Standard					
>0 to ≤5%		0.0~	2.0~	6.9	1.8
>5 to ≤10%		0.0~	1.7~	3.1~	0.9~
>10 to ≤15%		0.5~	0.6~	0.4~	0.5~
>15 to ≤20%		0.0~	0.2~	2.7~	0.6~
>20 to ≤25%		0.0~	0.9~	1.4~	0.5~
>25%		0.4~	1.2~	4.0~	1.3~
Vitamin A[a]	25% of 1989 RDA				
Percent Meeting Standard		89.7[α]	47.9	49.6[γ]	73.9
Percent Below Standard					
>0 to ≤5%		2.7~	9.0	7.5	4.8
>5 to ≤10%		2.3~	8.3	7.2	4.4
>10 to ≤15%		0.7~	5.9	2.2~	2.0
>15 to ≤20%		1.7~	6.6	6.4	3.5
>20 to ≤25%		1.2~	3.3~	6.7	2.7
>25%		1.7~	18.9	20.2	8.6
Calcium	25% of 1989 RDA				
Percent Meeting Standard		98.6[α]~	81.0	75.7[γ]	90.7
Percent Below Standard					
>0 to ≤5%		0.7~	1.9~	4.9~	1.8
>5 to ≤10%		0.0~	3.9	4.2~	1.6~
>10 to ≤15%		0.0~	1.3~	2.5~	0.8~
>15 to ≤20%		0.3~	2.5~	2.0~	1.0~
>20 to ≤25%		0.0~	4.4~	2.5~	1.3~
>25%		0.4~	5.0~	8.1	2.8
Iron	25% of 1989 RDA				
Percent Meeting Standard		92.2[α]	75.4	79.6[γ]	86.6
Percent Below Standard					
>0 to ≤5%		4.2~	7.6	6.8	5.3
>5 to ≤10%		0.3~	3.5~	4.8~	1.8
>10 to ≤15%		1.7~	5.7	2.6~	2.6
>15 to ≤20%		0.0~	2.6~	1.5~	0.8~
>20 to ≤25%		0.5~	3.1~	0.9~	1.1~
>25%		1.1~	2.1~	3.9~	1.9~

Table G.8 *(continued)*

Percent Above/Below Standard	Standard/ Recommendation	Percentage of Schools: Elementary Schools	Middle Schools	High Schools	All Schools
SMI Nutrition Standards					
Percentage of Calories from Total Fat	≤ 30%				
Percent Meeting Standard		88.6[α]	81.6	78.2[γ]	85.2
Percent Above Standard					
>0 to ≤5%		5.0	6.5	5.6	5.4
>5 to ≤10%		2.5~	3.2~	6.4	3.4
>10 to ≤15%		1.6~	4.2~	2.9~	2.4
>15%		2.3~	4.5~	6.9	3.6~
Percentage of Calories from Saturated Fat	< 10%				
Percent Meeting Standard		78.4	74.6	67.6[γ]	75.5
Percent Above Standard					
>0 to ≤5%		7.2	7.0	8.5	7.5
>5 to ≤10%		4.8	4.8~	9.7	5.8
>10 to ≤15%		1.6~	3.8~	4.7~	2.6
>15 to ≤20%		2.1~	2.6~	2.3~	2.2
>20%		5.9	7.4	7.3	6.5
Percentage of Calories from Total Fat	25% – 35%[b]				
Percent Meeting Standard		33.1[α]	54.0	55.6[γ]	41.5
Percent Above Standard		2.0~	4.5~	5.9	3.2~
Percent Below Standard					
>0 to ≤5%		10.6	9.6	9.2	10.1
>5 to ≤10%		11.4	8.1	9.3	10.4
>10 to ≤15%		12.9	5.7	7.4	10.5
>15 to ≤20%		9.9	8.0	2.2~	8.0
>20 to ≤25%		6.2	3.0~	3.5~	5.1
>25%		13.9	7.0	7.0	11.3
Other Nutrition Benchmarks					
Cholesterol	< 75 mg[b,c]				
Percent Meeting Standard		90.7[α]	81.5	78.9[γ]	86.6
Percent Above Standard					
>0 to ≤5%		1.9~	1.3~	1.5~	1.7
>5 to ≤10%		0.4~	4.5~	2.1~	1.5~
>10 to ≤15%		0.7~	3.2~	2.7~	0.6~
>15 to ≤20%		1.0~	2.1~	1.2~	1.3~
>20%		5.3	7.3	13.6	7.4
Sodium	< 575 mg[b,c]				
Percent Meeting Standard		52.6[α]	36.6	35.9[γ]	46.3
Percent Above Standard					
>0 to ≤5%		12.2[α]	5.8	2.4[γ]~	9.1
>5 to ≤10%		7.1	3.6~	6.0	6.2
>10 to ≤15%		1.9~	8.3	3.4~	3.3
>15 to ≤20%		5.1	6.4	4.7~	5.2
>20 to ≤25%		2.1~	5.0	5.0~	3.2
>25 to ≤50%		12.2	17.1	21.4	15.0
>50%		6.9	17.2	21.2	11.7

Table G.8 *(continued)*

Percent Above/Below Standard	Standard/ Recommendation	Percentage of Schools			
		Elementary Schools	Middle Schools	High Schools	All Schools
Other Nutrition Benchmarks					
Dietary Fiber (g/1,000 calories)	14[b]				
Percent Meeting Standard		0.0~	0.0~	0.0~	0.0~
Percent Below Standard					
>0 to ≤25%		3.6~	1.9~	2.7~	3.0~
>25 to ≤50%		28.1	19.2	23.4	25.5
>50%		68.2	78.8	73.9	71.3
Number of Schools		**282**	**263**	**257**	**802**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).
[b]Based on the 2010 *Dietary Guidelines for Americans*.
[c]Benchmarks are one-quarter of suggested maximum daily intake.

RDA = Recommended Dietary Allowance; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children

[α]Difference between elementary and middle schools is significantly different from zero at the .05 level.
[β]Difference between middle and high schools is significantly different from zero at the .05 level.
[γ]Difference between elementary and high schools is significantly different from zero at the .05 level.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

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Table G.9. Average and Distribution of Calories and Nutrients in School Breakfast Program Breakfasts *Offered* to Students in Elementary Schools

			Percentiles						
	Average	SE	5th	10th	25th	50th	75th	90th	95th
Calories	458	6.5	342	369	403	445	491	570	600
Macronutrients									
Total fat (g)	11	0.3	6	7	9	11	13	16	18
Saturated fat (g)	4	0.1	2	2	3	4	5	6	7
Monounsaturated fat (g)	4	0.1	2	2	3	4	5	6	8
Polyunsaturated fat (g)	2	0.1	1	1	2	2	3	4	4
Linoleic acid (g)	2	0.1	1	1	1	2	2	3	4
Alpha-linolenic acid (g)	0.2	0.01	0.1	0.1	0.1	0.2	0.2	0.3	0.3
Carbohydrate (g)	75	1.0	55	58	65	73	81	94	100
Protein (g)	16	0.2	12	13	14	15	17	19	20
Vitamins									
Vitamin A (mcg RE)	278	5.2	188	200	230	262	311	367	402
Vitamin A (mcg RAE)	279	5.4	185	197	229	264	316	374	404
Vitamin C (mg)	32	0.8	16	19	25	32	38	47	52
Vitamin E (mg AT)	1.0	0.05	0.4	0.5	0.6	0.8	1.1	1.8	2.3
Vitamin B_6 (mg)	0.6	0.02	0.3	0.3	0.4	0.5	0.7	0.8	0.9
Vitamin B_{12} (mcg)	2.2	0.04	1.4	1.5	1.8	2.1	2.4	2.9	3.2
Folate (mcg)	127	4.0	66	72	91	119	149	181	219
Folate (mcg DFE)	188	6.7	88	96	132	175	223	269	336
Niacin (mg)	5	0.2	3	3	4	5	6	8	9
Riboflavin (mg)	0.9	0.01	0.7	0.7	0.8	0.9	1.0	1.1	1.2
Thiamin (mg)	0.5	0.02	0.3	0.3	0.4	0.5	0.6	0.7	0.8
Minerals									
Calcium (mg)	428	4.7	355	367	389	415	457	500	527
Iron (mg)	5.0	0.14	2.3	2.8	3.7	4.8	5.8	7.5	8.5
Magnesium (mg)	66	1.1	51	53	58	62	70	81	87
Phosphorus (mg)	403	4.8	326	342	370	394	420	467	518
Potassium (mg)	726	6.0	619	634	670	712	767	826	883
Sodium (mg)	549	12.0	339	399	454	524	599	716	844
Zinc (mg)	3.3	0.08	2.0	2.1	2.6	3.2	3.7	4.6	5.1
Other Components									
Cholesterol (mg)	40	1.7	16	20	27	35	46	62	85
Dietary fiber (g)	3	0.1	2	2	2	3	3	4	5

Table G.9 *(continued)*

	Average	SE	Percentiles						
			5th	10th	25th	50th	75th	90th	95th
Percentage of Calories from:									
Total fat	22.2	0.34	14.1	16.0	18.9	22.2	25.2	28.2	30.4
Saturated fat	8.2	0.16	4.8	5.5	6.6	7.9	9.5	10.6	11.7
Monosaturated fat	7.9	0.16	4.2	5.1	6.4	7.6	9.2	10.9	12.0
Polyunsaturated fat	4.4	0.10	2.3	2.5	3.2	4.3	5.1	6.2	7.2
Linoleic acid	3.9	0.09	2.1	2.3	2.9	3.8	4.6	5.7	6.6
Alpha-linolenic acid	0.4	0.01	0.2	0.2	0.2	0.3	0.5	0.6	0.6
Carbohydrate	65.5	0.39	55.5	58.0	62.3	65.8	69.1	72.3	74.8
Protein	14.0	0.12	11.5	12.1	12.8	14.0	15.0	16.1	17.1
Number of Schools	**282**								

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalent; RAE = Retinol activity equivalent; SE=Standard error.

Table G.10. Average and Distribution of Calories and Nutrients in School Breakfast Program Breakfasts *Offered* to Students in Middle Schools

			Percentiles						
	Average	SE	5th	10th	25th	50th	75th	90th	95th
Calories	509	9.2	373	400	436	486	543	634	701
Macronutrients									
Total fat (g)	13	0.4	7	8	10	13	15	19	24
Saturated fat (g)	5	0.1	3	3	4	4	5	7	8
Monounsaturated fat (g)	5	0.2	2	3	4	5	6	8	10
Polyunsaturated fat (g)	3	0.1	1	1	2	2	3	4	5
Linoleic acid (g)	2	0.1	1	1	2	2	3	3	4
Alpha-linolenic acid (g)	0.2	0.01	0.1	0.1	0.1	0.2	0.3	0.3	0.4
Carbohydrate (g)	82	1.4	60	62	72	79	88	102	116
Protein (g)	17	0.3	13	14	15	16	18	21	24
Vitamins									
Vitamin A (mcg RE)	279	4.6	204	215	235	271	305	357	385
Vitamin A (mcg RAE)	283	4.8	203	215	235	271	310	363	408
Vitamin C (mg)	35	1.2	15	20	27	32	42	49	60
Vitamin E (mg AT)	1.2	0.05	0.5	0.6	0.7	1.0	1.3	2.0	2.7
Vitamin B_6 (mg)	0.6	0.02	0.3	0.4	0.4	0.5	0.6	0.8	0.9
Vitamin B_{12} (mcg)	2.1	0.05	1.5	1.5	1.7	2.1	2.4	2.7	2.9
Folate (mcg)	131	4.3	68	81	96	123	152	188	205
Folate (mcg DFE)	191	6.9	91	107	135	176	230	284	309
Niacin (mg)	6	0.2	3	3	4	5	6	7	9
Riboflavin (mg)	0.9	0.01	0.7	0.8	0.8	0.9	1.0	1.1	1.2
Thiamin (mg)	0.6	0.02	0.3	0.4	0.5	0.5	0.6	0.7	0.8
Minerals									
Calcium (mg)	443	6.1	359	373	394	427	469	524	557
Iron (mg)	5.1	0.15	2.9	3.3	3.8	4.8	6.0	7.0	8.1
Magnesium (mg)	68	1.1	53	55	59	66	72	83	89
Phosphorus (mg)	429	6.2	351	361	379	408	449	516	567
Potassium (mg)	765	8.3	642	662	702	740	812	866	966
Sodium (mg)	628	17.8	399	430	505	570	662	872	1,095
Zinc (mg)	3.3	0.09	2.0	2.2	2.6	3.1	3.9	4.4	5.5
Other Components									
Cholesterol (mg)	45	1.9	17	20	27	40	55	72	87
Dietary fiber (g)	3	0.1	1	2	2	3	4	5	5

Table G.10 *(continued)*

	Average	SE	Percentiles						
			5th	10th	25th	50th	75th	90th	95th
Percentage of Calories from:									
Total fat	23.0	0.39	15.2	17.4	19.6	23.1	26.2	28.9	30.2
Saturated fat	8.3	0.16	5.3	6.0	6.8	8.2	9.4	10.4	11.3
Monosaturated fat	8.5	0.17	5.1	5.9	6.8	8.4	9.9	11.3	12.5
Polyunsaturated fat	4.4	0.11	2.3	2.8	3.4	4.3	5.4	6.1	6.5
Linoleic acid	3.9	0.10	2.0	2.5	3.0	3.9	4.9	5.4	5.9
Alpha-linolenic acid	0.4	0.01	0.2	0.2	0.3	0.3	0.4	0.6	0.6
Carbohydrate	64.9	0.43	56.5	57.8	61.1	65.7	68.6	71.1	73.5
Protein	13.7	0.14	10.7	11.5	12.4	13.6	14.8	16.2	16.8
Number of Schools	**264**								

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalent; RAE = Retinol activity equivalent; SE=Standard error.

Table G.11. Average and Distribution of Calories and Nutrients in School Breakfast Program Breakfasts *Offered* to Students in High Schools

			Percentiles						
	Average	SE	5th	10th	25th	50th	75th	90th	95th
Calories	520	11.1	372	402	438	495	563	666	721
Macronutrients									
Total fat (g)	14	0.4	7	8	10	13	16	20	26
Saturated fat (g)	5	0.2	3	3	4	5	6	7	9
Monounsaturated fat (g)	5	0.2	2	3	4	5	6	8	10
Polyunsaturated fat (g)	3	0.1	1	1	2	2	3	4	5
Linoleic acid (g)	2	0.1	1	1	2	2	3	4	5
Alpha-linolenic acid (g)	0.2	0.01	0.1	0.1	0.1	0.2	0.3	0.4	0.4
Carbohydrate (g)	83	1.7	59	63	72	80	92	104	116
Protein (g)	17	0.4	13	14	15	16	19	22	25
Vitamins									
Vitamin A (mcg RE)	282	6.1	180	202	237	267	315	369	434
Vitamin A (mcg RAE)	287	6.1	184	201	240	273	324	385	423
Vitamin C (mg)	36	1.5	16	19	27	33	42	52	68
Vitamin E (mg AT)	1.2	0.06	0.5	0.6	0.7	1.0	1.4	2.0	2.6
Vitamin B_6 (mg)	0.6	0.02	0.3	0.4	0.4	0.5	0.6	0.8	0.9
Vitamin B_{12} (mcg)	2.1	0.05	1.3	1.5	1.7	2.0	2.3	2.8	3.2
Folate (mcg)	134	4.9	68	78	99	124	154	197	250
Folate (mcg DFE)	195	7.7	91	104	139	178	233	300	382
Niacin (mg)	6	0.2	3	3	4	5	6	8	10
Riboflavin (mg)	0.9	0.02	0.7	0.7	0.8	0.9	1.0	1.1	1.3
Thiamin (mg)	0.6	0.02	0.4	0.4	0.5	0.5	0.6	0.8	0.9
Minerals									
Calcium (mg)	439	9.0	343	368	392	419	466	537	589
Iron (mg)	5.2	0.17	2.7	3.0	3.9	4.8	5.9	8.0	9.1
Magnesium (mg)	70	1.4	53	56	60	66	76	89	95
Phosphorus (mg)	430	8.6	326	354	384	412	461	510	548
Potassium (mg)	775	12.7	615	666	703	750	799	919	1,029
Sodium (mg)	644	21.2	398	440	512	582	709	879	1,052
Zinc (mg)	3.3	0.10	2.1	2.2	2.5	3.1	3.8	4.8	5.6
Other Components									
Cholesterol (mg)	46	2.3	16	20	31	40	55	83	99
Dietary fiber (g)	3	0.1	2	2	2	3	4	5	6

Table G.11 *(continued)*

	Average	SE	Percentiles						
			5th	10th	25th	50th	75th	90th	95th
Percentage of Calories from:									
Total fat	23.6	0.40	15.0	17.0	20.1	23.6	26.8	30.1	31.5
Saturated fat	8.4	0.16	5.3	5.5	7.1	8.3	9.8	11.2	11.8
Monosaturated fat	8.8	0.19	4.8	5.9	7.1	8.6	10.1	12.1	13.2
Polyunsaturated fat	4.6	0.11	2.3	2.7	3.7	4.4	5.6	6.3	6.7
Linoleic acid	4.1	0.10	2.0	2.5	3.2	3.9	5.0	5.7	6.1
Alpha-linolenic acid	0.4	0.01	0.2	0.2	0.3	0.4	0.5	0.6	0.6
Carbohydrate	64.5	0.47	54.9	56.5	60.5	64.9	68.6	72.3	73.8
Protein	13.5	0.15	10.5	11.0	12.2	13.5	14.6	16.1	16.5
Number of Schools	**257**								

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalent; RAE = Retinol activity equivalent; SE=Standard error.

Table G.12. Average and Distribution of Calories and Nutrients in School Breakfast Program Breakfasts *Offered* to Students in All Schools

			Percentiles						
	Average	SE	5th	10th	25th	50th	75th	90th	95th
Calories	480	6.2	351	376	412	461	512	595	665
Macronutrients									
Total fat (g)	12	0.3	6	7	9	12	14	18	21
Saturated fat (g)	4	0.1	2	3	3	4	5	6	7
Monounsaturated fat (g)	4	0.1	2	2	3	4	5	7	8
Polyunsaturated fat (g)	2	0.1	1	1	2	2	3	4	4
Linoleic acid (g)	2	0.0	1	1	1	2	3	4	4
Alpha-linolenic acid (g)	0.2	0.00	0.1	0.1	0.1	0.2	0.3	0.3	0.4
Carbohydrate (g)	78	1.0	56	60	67	75	85	97	107
Protein (g)	16	0.2	13	13	15	16	17	20	22
Vitamins									
Vitamin A (mcg RE)	279	4.3	188	203	233	265	311	367	409
Vitamin A (mcg RAE)	282	4.4	187	203	233	268	320	374	414
Vitamin C (mg)	34	0.8	16	19	26	32	39	48	54
Vitamin E (mg AT)	1.1	0.04	0.5	0.5	0.7	0.9	1.2	1.8	2.5
Vitamin B_6 (mg)	0.6	0.01	0.3	0.4	0.4	0.5	0.7	0.8	0.9
Vitamin B_{12} (mcg)	2.1	0.04	1.4	1.5	1.7	2.1	2.4	2.9	3.2
Folate (mcg)	129	3.6	66	75	95	121	150	186	221
Folate (mcg DFE)	190	5.9	88	99	134	176	228	281	341
Niacin (mg)	5	0.2	3	3	4	5	6	8	9
Riboflavin (mg)	0.9	0.01	0.7	0.7	0.8	0.9	1.0	1.1	1.3
Thiamin (mg)	0.6	0.02	0.3	0.4	0.4	0.5	0.6	0.7	0.8
Minerals									
Calcium (mg)	433	4.5	354	368	391	418	459	506	549
Iron (mg)	5.1	0.12	2.6	2.9	3.7	4.8	5.8	7.5	8.5
Magnesium (mg)	67	0.9	52	54	58	64	72	82	90
Phosphorus (mg)	413	4.5	329	347	375	400	432	487	530
Potassium (mg)	743	5.9	620	641	681	726	784	857	922
Sodium (mg)	583	11.6	365	408	467	545	628	804	939
Zinc (mg)	3.3	0.07	2.0	2.2	2.6	3.1	3.8	4.6	5.5
Other Components									
Cholesterol (mg)	42	1.5	16	20	28	36	49	71	89
Dietary fiber (g)	3	0.1	2	2	2	3	4	5	5

Table G.12 *(continued)*

			Percentiles						
	Average	SE	5th	10th	25th	50th	75th	90th	95th
Percentage of Calories from:									
Total fat	22.6	0.27	14.6	16.6	19.3	22.5	25.9	29.0	30.8
Saturated fat	8.2	0.13	5.0	5.5	6.8	8.1	9.5	10.8	11.6
Monosaturated fat	8.2	0.13	4.6	5.2	6.6	7.9	9.6	11.3	12.4
Polyunsaturated fat	4.4	0.08	2.3	2.6	3.4	4.3	5.3	6.2	6.9
Linoleic acid	4.0	0.07	2.1	2.3	3.0	3.9	4.8	5.7	6.3
Alpha-linolenic acid	0.4	0.01	0.2	0.2	0.3	0.3	0.5	0.6	0.6
Carbohydrate	65.2	0.32	55.5	58.0	61.7	65.5	68.9	72.3	74.4
Protein	13.8	0.10	10.7	11.7	12.6	13.8	14.9	16.1	16.8
Number of Schools	**803**								

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalent; RAE = Retinol activity equivalent; SE=Standard error.

Table G.13. Average and Distribution of Calories and Nutrients in School Breakfast Program Breakfasts *Served* to Students in Elementary Schools

			Percentiles						
	Average	SE	5th	10th	25th	50th	75th	90th	95th
Calories	434	5.7	310	337	381	431	481	527	570
Macronutrients									
Total fat (g)	12	0.2	7	7	9	11	13	17	18
Saturated fat (g)	4	0.1	2	3	3	4	5	6	7
Monounsaturated fat (g)	4	0.1	2	2	3	4	5	7	8
Polyunsaturated fat (g)	2	0.1	1	1	2	2	3	3	4
Linoleic acid (g)	2	0.0	1	1	1	2	2	3	3
Alpha-linolenic acid (g)	0.2	0.00	0.1	0.1	0.1	0.2	0.2	0.3	0.3
Carbohydrate (g)	69	1.0	46	52	60	68	77	86	91
Protein (g)	15	0.2	10	11	13	15	17	18	20
Vitamins									
Vitamin A (mcg RE)	245	5.2	148	160	196	232	284	346	387
Vitamin A (mcg RAE)	248	5.4	145	162	196	237	289	349	384
Vitamin C (mg)	28	0.8	11	14	21	28	35	45	51
Vitamin E (mg AT)	0.9	0.03	0.4	0.5	0.6	0.9	1.1	1.4	1.7
Vitamin B_6 (mg)	0.5	0.01	0.3	0.3	0.4	0.5	0.6	0.8	0.9
Vitamin B_{12} (mcg)	1.9	0.04	1.0	1.2	1.5	1.8	2.1	2.6	2.8
Folate (mcg)	111	2.9	62	68	80	103	132	170	189
Folate (mcg DFE)	163	4.7	80	92	112	148	196	257	295
Niacin (mg)	5	0.1	3	3	4	5	6	7	8
Riboflavin (mg)	0.8	0.01	0.6	0.6	0.7	0.8	0.9	1.1	1.1
Thiamin (mg)	0.5	0.01	0.3	0.3	0.4	0.5	0.5	0.7	0.8
Minerals									
Calcium (mg)	382	6.0	242	274	338	387	425	468	499
Iron (mg)	4.5	0.11	2.4	2.7	3.3	4.2	5.4	7.0	7.8
Magnesium (mg)	59	0.9	40	44	51	58	67	74	82
Phosphorus (mg)	378	5.7	241	283	327	376	419	470	492
Potassium (mg)	660	9.4	456	503	575	670	740	791	846
Sodium (mg)	569	11.1	342	372	449	563	664	807	875
Zinc (mg)	3.0	0.07	1.7	1.9	2.2	2.8	3.5	4.3	5.2
Other Components									
Cholesterol (mg)	44	1.6	15	19	27	40	53	73	92
Dietary fiber (g)	3	0.1	1	2	2	3	3	4	5

Table G.13 *(continued)*

	Average	SE	Percentiles						
			5th	10th	25th	50th	75th	90th	95th
Percentage of Calories from:									
Total fat	23.8	0.33	16.3	18.1	20.9	23.5	26.8	30.5	31.9
Saturated fat	8.6	0.15	5.3	6.1	7.1	8.4	9.7	10.9	12.2
Monosaturated fat	8.7	0.16	5.0	5.8	7.2	8.5	9.9	11.8	13.7
Polyunsaturated fat	4.6	0.09	2.6	2.9	3.6	4.4	5.4	6.2	6.8
Linoleic acid	4.1	0.08	2.3	2.6	3.2	3.9	4.9	5.6	6.0
Alpha-linolenic acid	0.4	0.01	0.2	0.2	0.3	0.4	0.5	0.6	0.6
Carbohydrate	63.8	0.41	53.9	56.3	60.6	64.2	67.8	70.7	72.7
Protein	13.9	0.12	11.1	11.9	12.8	13.6	14.9	16.1	16.6
Number of Schools	**282**								

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalent; RAE = Retinol activity equivalent; SE=Standard error.

Table G.14. Average and Distribution of Calories and Nutrients in School Breakfast Program Breakfasts *Served* to Students in Middle Schools

			Percentiles						
	Average	SE	5th	10th	25th	50th	75th	90th	95th
Calories	503	20.0	354	379	423	465	524	602	661
Macronutrients									
Total fat (g)	15	0.7	8	9	12	14	16	21	23
Saturated fat (g)	5	0.2	3	3	4	5	6	7	8
Monounsaturated fat (g)	6	0.2	3	3	4	5	6	8	10
Polyunsaturated fat (g)	3	0.3	1	2	2	2	3	4	4
Linoleic acid (g)	3	0.3	1	1	2	2	3	3	4
Alpha-linolenic acid (g)	0.2	0.02	0.1	0.1	0.1	0.2	0.3	0.3	0.4
Carbohydrate (g)	77	3.0	53	58	64	71	82	96	107
Protein (g)	17	0.6	11	12	14	16	18	21	23
Vitamins									
Vitamin A (mcg RE)	241	10.8	119	137	184	218	272	331	379
Vitamin A (mcg RAE)	244	10.0	121	154	187	225	275	329	388
Vitamin C (mg)	32	1.4	11	15	22	29	39	47	54
Vitamin E (mg AT)	1.2	0.09	0.5	0.6	0.7	1.0	1.3	1.6	1.9
Vitamin B_6 (mg)	0.5	0.02	0.3	0.3	0.3	0.4	0.5	0.7	0.8
Vitamin B_{12} (mcg)	1.7	0.07	0.9	1.0	1.2	1.6	2.0	2.4	2.9
Folate (mcg)	111	4.9	61	64	78	99	126	161	181
Folate (mcg DFE)	158	7.3	80	87	107	139	181	233	277
Niacin (mg)	5	0.2	3	3	4	5	6	7	9
Riboflavin (mg)	0.8	0.03	0.5	0.6	0.7	0.8	0.9	1.1	1.1
Thiamin (mg)	0.5	0.02	0.3	0.4	0.4	0.5	0.6	0.7	0.8
Minerals									
Calcium (mg)	390	15.8	223	242	308	367	426	501	555
Iron (mg)	4.5	0.16	2.7	2.9	3.4	4.2	5.1	6.5	7.2
Magnesium (mg)	63	2.7	41	44	49	58	67	79	85
Phosphorus (mg)	414	14.8	242	275	333	390	463	530	572
Potassium (mg)	706	25.7	446	493	578	677	766	862	927
Sodium (mg)	687	23.5	404	438	508	645	794	956	1,095
Zinc (mg)	2.9	0.11	1.6	1.8	2.1	2.5	3.3	4.3	5.0
Other Components									
Cholesterol (mg)	54	3.4	16	21	30	43	70	86	116
Dietary fiber (g)	3	0.2	2	2	2	3	3	4	5

Table G.14 *(continued)*

	Average	SE	Percentiles						
			5th	10th	25th	50th	75th	90th	95th
Percentage of Calories from:									
Total fat	26.0	0.40	17.2	19.9	22.9	26.2	29.0	31.9	34.3
Saturated fat	8.9	0.17	5.9	6.6	7.3	8.9	10.1	11.5	12.2
Monosaturated fat	10.1	0.21	6.2	6.8	8.2	9.8	11.5	13.7	15.0
Polyunsaturated fat	4.9	0.11	2.9	3.3	3.9	4.6	5.7	6.8	7.3
Linoleic acid	4.4	0.10	2.5	2.9	3.5	4.2	5.1	6.1	6.5
Alpha-linolenic acid	0.4	0.01	0.2	0.2	0.3	0.4	0.5	0.6	0.7
Carbohydrate	61.7	0.45	51.3	54.1	58.0	61.2	66.2	68.7	71.1
Protein	13.5	0.15	10.2	11.1	12.3	13.4	14.8	16.0	16.9
Number of Schools	**263**								

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalent; RAE = Retinol activity equivalent; SE=Standard error.

Table G.15. Average and Distribution of Calories and Nutrients in School Breakfast Program Breakfasts *Served* to Students in High Schools

			Percentiles						
	Average	SE	5th	10th	25th	50th	75th	90th	95th
Calories	504	9.1	353	377	426	492	558	634	722
Macronutrients									
Total fat (g)	15	0.4	8	9	12	14	18	21	24
Saturated fat (g)	5	0.1	3	3	4	5	6	7	8
Monounsaturated fat (g)	6	0.2	3	3	4	5	7	9	10
Polyunsaturated fat (g)	3	0.1	1	2	2	3	3	4	5
Linoleic acid (g)	3	0.1	1	1	2	2	3	4	5
Alpha-linolenic acid (g)	0.2	0.01	0.1	0.1	0.2	0.2	0.3	0.4	0.5
Carbohydrate (g)	77	1.4	52	58	65	75	85	97	105
Protein (g)	17	0.4	10	12	14	16	19	22	25
Vitamins									
Vitamin A (mcg RE)	234	6.0	120	135	178	223	268	353	386
Vitamin A (mcg RAE)	237	6.0	118	143	181	226	274	356	398
Vitamin C (mg)	33	1.3	10	16	22	32	42	53	59
Vitamin E (mg AT)	1.1	0.03	0.5	0.6	0.8	1.1	1.4	1.7	2.0
Vitamin B_6 (mg)	0.5	0.01	0.3	0.3	0.3	0.4	0.5	0.7	0.8
Vitamin B_{12} (mcg)	1.6	0.05	0.8	0.9	1.2	1.5	2.0	2.5	2.8
Folate (mcg)	112	3.6	61	67	83	104	132	168	198
Folate (mcg DFE)	160	5.9	78	90	115	143	188	256	304
Niacin (mg)	5	0.2	3	3	4	5	6	8	9
Riboflavin (mg)	0.8	0.02	0.5	0.5	0.7	0.8	0.9	1.1	1.2
Thiamin (mg)	0.5	0.01	0.3	0.4	0.4	0.5	0.6	0.8	0.8
Minerals									
Calcium (mg)	373	7.9	172	233	302	375	423	502	568
Iron (mg)	4.6	0.13	2.7	3.1	3.5	4.2	5.1	6.5	7.7
Magnesium (mg)	62	1.1	38	43	51	60	71	80	88
Phosphorus (mg)	402	8.5	209	268	329	397	457	527	567
Potassium (mg)	699	12.8	416	478	579	698	787	899	982
Sodium (mg)	703	19.9	408	438	522	679	844	1,004	1,119
Zinc (mg)	2.9	0.09	1.5	1.7	2.1	2.6	3.4	4.4	5.5
Other Components									
Cholesterol (mg)	56	2.9	19	22	31	47	65	97	126
Dietary fiber (g)	3	0.1	2	2	2	3	3	4	6

Table G.15 *(continued)*

	Average	SE	Percentiles						
			5th	10th	25th	50th	75th	90th	95th
Percentage of Calories from:									
Total fat	26.6	0.40	17.3	19.8	23.0	26.6	29.5	33.0	35.8
Saturated fat	9.1	0.16	6.0	6.7	7.8	9.1	10.4	11.3	13.0
Monosaturated fat	10.3	0.21	5.6	6.6	8.4	10.1	12.0	13.9	15.3
Polyunsaturated fat	5.0	0.11	2.8	3.2	4.0	4.8	5.9	6.8	7.4
Linoleic acid	4.4	0.10	2.3	2.9	3.6	4.3	5.3	6.2	6.6
Alpha-linolenic acid	0.4	0.01	0.2	0.2	0.3	0.4	0.5	0.6	0.8
Carbohydrate	61.4	0.50	49.3	52.9	57.6	61.5	65.9	68.6	70.0
Protein	13.3	0.17	9.6	10.3	12.0	13.3	14.8	16.1	16.7
Number of Schools	**257**								

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalent; RAE = Retinol activity equivalent; SE=Standard error.

Table G.16. Average and Distribution of Calories and Nutrients in School Breakfast Program Breakfasts *Served* to Students in All Schools

			Percentiles						
	Average	SE	5th	10th	25th	50th	75th	90th	95th
Calories	461	5.8	316	352	394	447	509	575	617
Macronutrients									
Total fat (g)	13	0.2	7	8	10	12	15	18	21
Saturated fat (g)	5	0.1	2	3	3	4	5	7	8
Monounsaturated fat (g)	5	0.1	2	3	3	5	6	8	9
Polyunsaturated fat (g)	2	0.1	1	1	2	2	3	4	4
Linoleic acid (g)	2	0.1	1	1	2	2	3	3	4
Alpha-linolenic acid (g)	0.2	0.01	0.1	0.1	0.1	0.2	0.2	0.3	0.4
Carbohydrate (g)	72	0.9	49	55	63	70	80	90	98
Protein (g)	16	0.2	10	11	13	15	17	20	22
Vitamins									
Vitamin A (mcg RE)	242	4.2	133	156	189	229	277	346	387
Vitamin A (mcg RAE)	245	4.2	134	157	192	233	285	348	388
Vitamin C (mg)	30	0.7	11	15	21	28	37	47	54
Vitamin E (mg AT)	1.0	0.03	0.5	0.5	0.7	0.9	1.2	1.5	1.8
Vitamin B_6 (mg)	0.5	0.01	0.3	0.3	0.4	0.4	0.6	0.7	0.9
Vitamin B_{12} (mcg)	1.8	0.03	0.9	1.0	1.4	1.7	2.1	2.6	2.9
Folate (mcg)	112	2.3	61	67	80	103	131	170	195
Folate (mcg DFE)	162	3.8	80	91	112	147	190	255	295
Niacin (mg)	5	0.1	3	3	4	5	6	7	9
Riboflavin (mg)	0.8	0.01	0.5	0.6	0.7	0.8	0.9	1.1	1.2
Thiamin (mg)	0.5	0.01	0.3	0.3	0.4	0.5	0.6	0.7	0.8
Minerals									
Calcium (mg)	382	5.3	227	262	327	384	426	483	513
Iron (mg)	4.5	0.09	2.5	2.9	3.4	4.2	5.3	6.7	7.7
Magnesium (mg)	61	0.8	40	44	51	59	67	78	83
Phosphorus (mg)	389	5.2	240	277	329	383	431	494	528
Potassium (mg)	676	8.4	452	501	576	673	750	831	894
Sodium (mg)	618	10.6	353	388	469	584	727	878	1,004
Zinc (mg)	2.9	0.06	1.6	1.8	2.2	2.7	3.4	4.4	5.2
Other Components									
Cholesterol (mg)	48	1.7	16	20	28	42	59	83	97
Dietary fiber (g)	3	0.1	2	2	2	3	3	4	5

Table G.16 *(continued)*

	Average	SE	Percentiles						
			5th	10th	25th	50th	75th	90th	95th
Percentage of Calories from:									
Total fat	24.8	0.27	16.6	18.6	21.3	24.3	28.2	31.4	33.8
Saturated fat	8.7	0.12	5.5	6.3	7.2	8.6	9.9	11.3	12.5
Monosaturated fat	9.3	0.14	5.2	6.1	7.5	9.0	10.8	12.9	14.3
Polyunsaturated fat	4.7	0.07	2.6	3.1	3.7	4.5	5.5	6.6	7.2
Linoleic acid	4.2	0.07	2.3	2.7	3.3	4.1	5.0	5.9	6.4
Alpha-linolenic acid	0.4	0.01	0.2	0.2	0.3	0.4	0.5	0.6	0.7
Carbohydrate	63.0	0.33	52.3	55.3	59.2	63.7	67.2	70.0	72.4
Protein	13.7	0.11	10.5	11.4	12.5	13.5	14.8	16.1	16.7
Number of Schools	**802**								

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalent; RAE = Retinol activity equivalent; SE=Standard error.

Table G.17. Average and Distribution of Nutrients per 1,000 Calories in School Breakfast Program Breakfasts *Offered* to Students in Elementary Schools

			Reference Standard[a]		Percentiles per 1,000 Calories						
	Average per 1,000 Calories	SE	Ages 4 – 8 Males/ Females	Ages 9 – 13 Males/ Females	5th	10th	25th	50th	75th	90th	95th
Macronutrients											
Total fat (g)	25	0.4	n.a.	n.a.	16	18	21	25	28	31	34
Saturated fat (g)	9	0.2	n.a.	n.a.	5	6	7	9	11	12	13
Monounsaturated fat (g)	9	0.2	n.a.	n.a.	5	6	7	8	10	12	13
Polyunsaturated fat (g)	5	0.1	n.a.	n.a.	3	3	4	5	6	7	8
Linoleic acid (g)[b]	4	0.1	6	6	2	3	3	4	5	6	7
Alpha-linolenic acid (g)[b]	0.4	0.01	0.5	0.6	0.2	0.2	0.3	0.4	0.5	0.6	0.7
Carbohydrate (g)[c]	164	1.0	76	68	139	145	156	164	173	181	187
Protein (g)[c]	35	0.3	11	18	29	30	32	35	38	40	43
Vitamins											
Vitamin A (mcg RE)[c]	616	10.3	n.a.	n.a.	381	445	517	599	689	808	863
Vitamin A (mcg RAE)[c]	619	10.3	235	316	374	439	514	610	700	828	861
Vitamin C (mg)[c]	72	1.8	15	24	34	42	54	71	85	110	116
Vitamin E (mg AT)[c]	2.2	0.09	4	6	1.1	1.3	1.5	1.8	2.3	3.4	4.3
Vitamin B_6 (mg)[c]	1.3	0.03	0.4	0.5	0.6	0.8	1.0	1.2	1.5	1.8	2.0
Vitamin B_{12} (mcg)[c]	4.8	0.09	0.7	0.9	2.9	3.3	4.0	4.7	5.6	6.3	6.9
Folate (mcg)[c]	278	6.7	n.a.	n.a.	157	167	213	262	331	392	478
Folate (mcg DFE)[c]	410	11.3	118	158	198	225	307	389	483	609	733
Niacin (mg)[c]	12	0.3	5	6	6	7	9	11	14	16	18
Riboflavin (mg)[c]	2.0	0.02	0.4	0.5	1.5	1.6	1.8	2.0	2.2	2.5	2.6
Thiamin (mg)[c]	1.2	0.02	0.4	0.5	0.8	0.8	0.9	1.1	1.3	1.5	1.7
Minerals											
Calcium (mg)[c]	956	11.2	588	684	723	749	843	945	1,046	1,150	1,229
Iron (mg)[c]	10.9	0.26	6	4	5.4	6.4	8.1	10.5	12.8	16.2	17.6
Magnesium (mg)[c]	146	1.9	76	126	110	116	128	142	161	177	191
Phosphorus (mg)[c]	892	7.5	294	658	718	759	819	887	960	1,024	1,078
Potassium (mg)[b]	1,620	15.3	2235	2368	1,281	1,379	1,455	1,600	1,754	1,890	1,971
Sodium (mg)[d]	1,195	15.5	< 1118	< 1158	873	915	1,048	1,153	1,329	1,483	1,576
Zinc (mg)[c]	7.3	0.15	3	4	4.4	4.9	5.9	7.0	8.4	10.4	11.2
Other Components											
Cholesterol (mg)[e]	87	2.7	< 176	< 158	37	47	62	78	104	131	159
Dietary fiber (g)[e]	7	0.1	14	14	4	4	5	6	8	9	11
Number of Schools	**282**										

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Table G.17 *(continued)*

[a]The "per 1,000 calorie" reference standards are based on Dietary Reference Intakes and assume a 1,700 calorie diet for 4–8 year olds and a 1,900 calorie diet for 9–13 year olds. These calorie levels represent weighted averages for each age group, assuming an active level of physical activity for 4–8 year olds and a moderately active level of physical activity for 9–13 year olds (IOM 2010).
[b]Reference standards is based on the Adequate Intake (AI), Institute of Medicine, IOM. Dietary Reference intakes: The essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006.
[c]Reference standard is based on the Recommended Dietary Allowance (RDA), IOM. Dietary Reference intakes: The essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006.
[d]Reference standard is based on the Upper Limit (UL), *Dietary Guidelines*, 2010 recommendation.
[e]Reference standard is based on the *Dietary Guidelines*, 2010 recommendation.

n.a. = Not applicable; AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalent; RAE = Retinol activity equivalent; SE=Standard error.

Table G.18. Average and Distribution of Nutrients per 1,000 Calories in School Breakfast Program Breakfasts *Offered* to Students in Middle Schools

	Average per 1,000 Calories	SE	Reference Standard[a] Ages 9 – 13 Males/ Females	Percentiles per 1,000 Calories 5th	10th	25th	50th	75th	90th	95th
Macronutrients										
Total fat (g)	26	0.4	n.a.	17	19	22	26	29	32	34
Saturated fat (g)	9	0.2	n.a.	6	7	8	9	10	12	13
Monounsaturated fat (g)	9	0.2	n.a.	6	7	8	9	11	13	14
Polyunsaturated fat (g)	5	0.1	n.a.	3	3	4	5	6	7	7
Linoleic acid (g)[b]	4	0.1	6	2	3	3	4	5	6	7
Alpha-linolenic acid (g)[b]	0.4	0.01	0.6	0.2	0.2	0.3	0.4	0.5	0.6	0.7
Carbohydrate (g)[c]	162	1.1	68	141	145	153	164	171	178	184
Protein (g)[c]	34	0.3	18	27	29	31	34	37	41	42
Vitamins										
Vitamin A (mcg RE)[c]	561	8.8	n.a.	387	409	473	546	649	713	748
Vitamin A (mcg RAE)[c]	569	9.3	316	390	417	471	555	663	722	760
Vitamin C (mg)[c]	70	2.1	24	30	39	53	66	85	107	111
Vitamin E (mg AT)[c]	2.3	0.09	6	1.2	1.3	1.6	1.9	2.5	3.4	4.5
Vitamin B_6 (mg)[c]	1.1	0.03	0.5	0.7	0.7	0.9	1.1	1.3	1.6	1.9
Vitamin B_{12} (mcg)[c]	4.3	0.09	0.9	2.6	3.0	3.4	4.1	5.0	5.7	6.5
Folate (mcg)[c]	258	6.6	n.a.	148	164	200	245	309	368	387
Folate (mcg DFE)[c]	375	10.9	158	195	219	280	353	466	553	594
Niacin (mg)[c]	11	0.2	6	7	8	9	10	12	15	15
Riboflavin (mg)[c]	1.9	0.03	0.5	1.4	1.5	1.7	1.8	2.1	2.2	2.4
Thiamin (mg)[c]	1.1	0.02	0.5	0.8	0.8	0.9	1.1	1.3	1.4	1.5
Minerals										
Calcium (mg)[c]	894	12.6	684	654	699	777	887	998	1,092	1,134
Iron (mg)[c]	10.1	0.23	4	6.0	6.7	7.8	9.6	11.7	13.8	15.1
Magnesium (mg)[c]	136	1.8	126	98	110	121	136	150	166	171
Phosphorus (mg)[c]	857	8.9	658	678	727	768	849	939	986	1,084
Potassium (mg)[b]	1,543	19.4	2368	1,182	1,252	1,370	1,531	1,690	1,864	1,954
Sodium (mg)[d]	1,221	17.4	< 1158	911	971	1,064	1,183	1,328	1,575	1,648
Zinc (mg)[c]	6.6	0.18	4	4.0	4.3	5.2	6.4	7.9	8.9	9.8
Other Components										
Cholesterol (mg)[e]	87	3.3	< 158	39	42	58	77	110	134	161
Dietary fiber (g)[e]	6	0.1	14	3	4	5	6	8	9	11
Number of Schools	**264**									

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Table G.18 *(continued)*

[a]The "per 1,000 calorie" reference standards are based on Dietary Reference Intakes and assume a 1,900 calorie diet for 9–13 year olds. These calorie levels represent weighted averages for each age group, assuming a moderately active level of physical activity for 9–13 year olds (IOM 2010).
[b]Reference standards is based on the Adequate Intake (AI), Institute of Medicine, IOM. Dietary Reference intakes: The essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006.
[c]Reference standard is based on the Recommended Dietary Allowance (RDA), IOM. Dietary Reference intakes: The essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006.
[d]Reference standard is based on the Upper Limit (UL), *Dietary Guidelines*, 2010 recommendation.
[e]Reference standard is based on the *Dietary Guidelines*, 2010 recommendation.

n.a. = Not applicable; AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalent; RAE = Retinol activity equivalent; SE=Standard error.

Table G.19. Average and Distribution of Nutrients per 1,000 Calories in School Breakfast Program Breakfasts *Offered* to Students in High Schools

			Reference Standard[a]		Percentiles per 1,000 Calories						
	Average per 1,000 Calories	SE	Ages 14 – 18 Males	Ages 14 – 18 Females	5th	10th	25th	50th	75th	90th	95th
Macronutrients											
Total fat (g)	26	0.4	n.a.	n.a.	17	19	22	26	30	33	35
Saturated fat (g)	9	0.2	n.a.	n.a.	6	6	8	9	11	12	13
Monounsaturated fat (g)	10	0.2	n.a.	n.a.	5	7	8	10	11	13	15
Polyunsaturated fat (g)	5	0.1	n.a.	n.a.	3	3	4	5	6	7	7
Linoleic acid (g)[b]	5	0.1	6	6	2	3	4	4	6	6	7
Alpha-linolenic acid (g)[b]	0.4	0.01	0.6	0.6	0.2	0.2	0.3	0.4	0.5	0.6	0.7
Carbohydrate (g)[c]	161	1.2	50	65	137	141	151	162	172	181	184
Protein (g)[c]	34	0.4	20	23	26	27	31	34	36	40	41
Vitamins											
Vitamin A (mcg RE)[c]	555	10.3	n.a.	n.a.	344	392	468	545	620	738	792
Vitamin A (mcg RAE)[c]	565	10.6	346	350	368	402	471	547	629	752	830
Vitamin C (mg)[c]	70	2.2	29	33	33	39	52	67	84	100	115
Vitamin E (mg AT)[c]	2.2	0.07	6	8	1.1	1.3	1.6	2.0	2.6	3.5	4.3
Vitamin B_6 (mg)[c]	1.1	0.03	0.5	0.6	0.6	0.7	0.9	1.1	1.3	1.6	1.8
Vitamin B_{12} (mcg)[c]	4.1	0.09	0.9	1.2	2.4	2.8	3.2	4.0	4.7	5.7	6.5
Folate (mcg)[c]	258	6.9	n.a.	n.a.	139	163	199	243	305	365	436
Folate (mcg DFE)[c]	375	11.5	154	200	189	212	274	347	446	562	666
Niacin (mg)[c]	11	0.2	6	7	7	7	9	10	12	15	17
Riboflavin (mg)[c]	1.8	0.03	0.5	0.5	1.4	1.5	1.6	1.8	2.1	2.3	2.5
Thiamin (mg)[c]	1.1	0.02	0.5	0.5	0.8	0.8	0.9	1.0	1.2	1.5	1.6
Minerals											
Calcium (mg)[c]	863	11.9	500	650	641	663	749	852	939	1,057	1,136
Iron (mg)[c]	10.1	0.27	4	8	6.0	6.7	7.7	9.2	11.3	15.3	16.5
Magnesium (mg)[c]	136	1.6	158	180	105	110	119	133	151	166	172
Phosphorus (mg)[c]	840	9.3	481	625	651	687	756	834	917	973	1,038
Potassium (mg)[b]	1,529	17.9	1808	2350	1,181	1,262	1,359	1,523	1,680	1,818	1,918
Sodium (mg)[d]	1,227	21.9	< 885	< 1150	872	920	1,047	1,184	1,404	1,611	1,673
Zinc (mg)[c]	6.6	0.16	4	5	4.0	4.2	5.2	6.2	7.5	9.3	10.8
Other Components											
Cholesterol (mg)[e]	88	3.4	< 115	<150	36	43	58	81	104	140	171
Dietary fiber (g)[e]	6	0.2	14	14	4	4	5	6	8	9	11
Number of Schools	**257**										

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Table G.19 *(continued)*

[a]The "per 1,000 calorie" reference standards are based on Dietary Reference Intakes and assume a 2,600 calorie diet for 14–18 year old males and a 2,000 calorie diet for 14–18 year old females. These calorie levels represent weighted averages for each age group, assuming a moderately active level of physical activity for all 14–18 year olds (IOM 2010).
[b]Reference standards is based on the Adequate Intake (AI), Institute of Medicine, IOM. Dietary Reference intakes: The essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006.
[c]Reference standard is based on the Recommended Dietary Allowance (RDA), IOM. Dietary Reference intakes: The essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006.
[d]Reference standard is based on the Upper Limit (UL), *Dietary Guidelines*, 2010 recommendation.
[e]Reference standard is based on the *Dietary Guidelines*, 2010 recommendation.

n.a. = Not applicable; AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalent; RAE = Retinol activity equivalent; SE=Standard error.

Table G.20. Average and Distribution of Nutrients per 1,000 Calories in School Breakfast Program Breakfasts *Offered* to Students in All Schools

			Reference Standard[a]				Percentiles per 1,000 Calories						
	Average per 1,000 Calories	SE	Ages 4 – 8 Males/ Females	Ages 9 – 13 Males/ Females	Ages 14 – 18 Males	Ages 14 – 18 Females	5th	10th	25th	50th	75th	90th	95th
Macronutrients													
Total fat (g)	25	0.3	n.a.	n.a.	n.a.	n.a.	16	18	21	25	29	32	34
Saturated fat (g)	9	0.1	n.a.	n.a.	n.a.	n.a.	6	6	8	9	11	12	13
Monounsaturated fat (g)	9	0.1	n.a.	n.a.	n.a.	n.a.	5	6	7	9	11	13	14
Polyunsaturated fat (g)	5	0.1	n.a.	n.a.	n.a.	n.a.	3	3	4	5	6	7	8
Linoleic acid (g)[b]	4	0.1	6	6	6	6	2	3	3	4	5	6	7
Alpha-linolenic acid (g)[b]	0.4	0.01	0.5	0.6	0.6	0.6	0.2	0.2	0.3	0.4	0.5	0.6	0.7
Carbohydrate (g)[c]	163	0.8	76	68	50	65	139	145	154	164	172	181	186
Protein (g)[c]	35	0.2	11	18	20	23	27	29	31	35	37	40	42
Vitamins													
Vitamin A (mcg RE)[c]	594	7.7	n.a.	n.a.	n.a.	n.a.	380	428	495	583	668	781	854
Vitamin A (mcg RAE)[c]	599	7.7	235	316	346	350	376	432	494	590	678	784	844
Vitamin C (mg)[c]	71	1.4	15	24	29	33	33	40	54	69	85	109	116
Vitamin E (mg AT)[c]	2.2	0.07	4	6	6	8	1.1	1.3	1.6	1.9	2.4	3.4	4.4
Vitamin B_6 (mg)[c]	1.2	0.02	0.4	0.5	0.5	0.6	0.6	0.7	0.9	1.2	1.4	1.7	1.9
Vitamin B_{12} (mcg)[c]	4.6	0.07	0.7	0.9	0.9	1.2	2.8	3.1	3.7	4.5	5.3	6.2	6.7
Folate (mcg)[c]	271	5.3	n.a.	n.a.	n.a.	n.a.	147	167	208	258	317	382	434
Folate (mcg DFE)[c]	397	8.9	118	158	154	200	196	222	288	371	474	584	657
Niacin (mg)[c]	11	0.2	5	6	6	7	6	7	9	11	13	16	18
Riboflavin (mg)[c]	2.0	0.02	0.4	0.5	0.5	0.5	1.4	1.5	1.7	1.9	2.2	2.4	2.6
Thiamin (mg)[c]	1.1	0.02	0.4	0.5	0.5	0.5	0.8	0.8	0.9	1.1	1.3	1.5	1.6
Minerals													
Calcium (mg)[c]	926	9.1	588	684	500	650	677	724	814	918	1,022	1,125	1,222
Iron (mg)[c]	10.6	0.21	6	4	4	8	5.9	6.6	8.0	10.1	12.4	15.6	17.2
Magnesium (mg)[c]	142	1.4	76	126	158	180	107	112	126	140	156	174	181
Phosphorus (mg)[c]	875	6.2	294	658	481	625	683	729	805	870	945	1,013	1,077
Potassium (mg)[b]	1,587	12.6	2235	2368	1808	2350	1,226	1,298	1,439	1,577	1,732	1,863	1,956
Sodium (mg)[d]	1,206	13.4	< 1118	< 1158	< 885	< 1150	876	939	1,048	1,163	1,344	1,493	1,647
Zinc (mg)[c]	7.0	0.12	3	4	4	5	4.2	4.7	5.6	6.7	8.2	9.9	11.0
Other Components													
Cholesterol (mg)[e]	87	2.4	< 176	< 158	< 115	<150	37	45	60	78	104	136	164
Dietary fiber (g)[e]	6	0.1	14	14	14	14	4	4	5	6	8	9	11
Number of Schools	**803**												

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

n.a. = Not applicable; AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalent; RAE = Retinol activity equivalent; SE=Standard error.

Table G.20 *(continued)*

[a]The "per 1,000 calorie" reference standards are based on Dietary Reference Intakes and assume a 1,700 calorie diet for 4–8 year olds, a 1,900 calorie diet for 9–13 year olds, a 2,600 calorie diet for 14–18 year old males and a 2,000 calorie diet for 14–18 year old females. These calorie levels represent weighted averages for each age group, assuming an active level of physical activity for 4–8 year olds and a moderately active level of physical activity for 9–13 and 14–18 year olds (IOM 2010).
[b]Reference standards is based on the Adequate Intake (AI), Institute of Medicine, IOM. Dietary Reference intakes: The essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006.
[c]Reference standard is based on the Recommended Dietary Allowance (RDA), IOM. Dietary Reference intakes: The essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006.
[d]Reference standard is based on the Upper Limit (UL), *Dietary Guidelines*, 2010 recommendation.
[e]Reference standard is based on the *Dietary Guidelines*, 2010 recommendation.

n.a. = Not applicable; AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalent; RAE = Retinol activity equivalent; SE=Standard error.

Table G.21. Average and Distribution of Nutrients per 1,000 Calories in School Breakfast Program Breakfasts *Served* to Students in Elementary Schools

	Average per 1,000 Calories	SE	Reference Standard[a] Ages 4 – 8 Males/ Females	Reference Standard[a] Ages 9 – 13 Males/ Females	Percentiles per 1,000 Calories 5th	10th	25th	50th	75th	90th	95th
Macronutrients											
Total fat (g)	26	0.4	n.a.	n.a.	18	20	23	26	30	34	35
Saturated fat (g)	10	0.2	n.a.	n.a.	6	7	8	9	11	12	14
Monounsaturated fat (g)	10	0.2	n.a.	n.a.	6	6	8	9	11	13	15
Polyunsaturated fat (g)	5	0.1	n.a.	n.a.	3	3	4	5	6	7	8
Linoleic acid (g)[b]	5	0.1	6	6	3	3	4	4	5	6	7
Alpha-linolenic acid (g)[b]	0.4	0.01	0.5	0.6	0.2	0.2	0.3	0.4	0.5	0.6	0.7
Carbohydrate (g)[c]	160	1.0	76	68	135	141	151	161	169	177	182
Protein (g)[c]	35	0.3	11	18	28	30	32	34	37	40	42
Vitamins											
Vitamin A (mcg RE)[c]	570	10.7	n.a.	n.a.	350	401	473	540	655	760	791
Vitamin A (mcg RAE)[c]	577	11.2	235	316	349	395	468	556	669	767	886
Vitamin C (mg)[c]	66	1.9	15	24	27	37	46	63	86	106	112
Vitamin E (mg AT)[c]	2.2	0.07	4	6	1.2	1.4	1.6	1.9	2.4	3.0	3.8
Vitamin B_6 (mg)[c]	1.2	0.03	0.4	0.5	0.6	0.7	0.9	1.1	1.4	1.8	2.0
Vitamin B_{12} (mcg)[c]	4.3	0.09	0.7	0.9	2.4	2.8	3.5	4.2	4.9	6.0	6.9
Folate (mcg)[c]	261	6.5	n.a.	n.a.	141	158	185	246	301	381	428
Folate (mcg DFE)[c]	382	10.9	118	158	187	221	259	353	452	591	655
Niacin (mg)[c]	11	0.2	5	6	7	7	9	11	13	16	18
Riboflavin (mg)[c]	1.9	0.03	0.4	0.5	1.3	1.4	1.7	1.9	2.1	2.4	2.7
Thiamin (mg)[c]	1.1	0.02	0.4	0.5	0.7	0.8	0.9	1.1	1.3	1.5	1.7
Minerals											
Calcium (mg)[c]	891	11.1	588	684	604	672	788	891	984	1,105	1,160
Iron (mg)[c]	10.6	0.27	6	4	5.8	6.6	7.8	9.7	12.3	16.5	17.7
Magnesium (mg)[c]	138	1.6	76	126	103	109	121	138	152	168	176
Phosphorus (mg)[c]	874	7.4	294	658	669	725	808	878	942	1,006	1,050
Potassium (mg)[b]	1,531	14.1	2235	2368	1,182	1,252	1,388	1,540	1,662	1,775	1,868
Sodium (mg)[d]	1,302	16.4	< 1118	< 1158	919	993	1,131	1,276	1,448	1,610	1,769
Zinc (mg)[c]	6.9	0.15	3	4	4.1	4.5	5.3	6.5	7.9	9.5	11.2
Other Components											
Cholesterol (mg)[e]	101	3.4	< 176	< 158	42	46	64	91	121	163	191
Dietary fiber (g)[e]	6	0.1	14	14	4	4	5	6	7	9	10
Number of Schools	**282**										

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Table G.21 *(continued)*

[a]The "per 1,000 calorie" reference standards are based on Dietary Reference Intakes and assume a 1,700 calorie diet for 4–8 year olds and a 1,900 calorie diet for 9–13 year olds. These calorie levels represent weighted averages for each age group, assuming an active level of physical activity for 4–8 year olds and a moderately active level of physical activity for 9–13 year olds (IOM 2010).
[b]Reference standards is based on the Adequate Intake (AI), Institute of Medicine, IOM. Dietary Reference intakes: The essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006.
[c]Reference standard is based on the Recommended Dietary Allowance (RDA), IOM. Dietary Reference intakes: The essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006.
[d]Reference standard is based on the Upper Limit (UL), *Dietary Guidelines*, 2010 recommendation.
[e]Reference standard is based on the *Dietary Guidelines*, 2010 recommendation.

n.a. = Not applicable; AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalent; RAE = Retinol activity equivalent; SE=Standard error.

Table G.22. Average and Distribution of Nutrients per 1,000 Calories in School Breakfast Program Breakfasts *Served* to Students in Middle Schools

	Average per 1,000 Calories	SE	Reference Standard[a] Ages 9 – 13 Males/ Females	Percentiles per 1,000 Calories						
				5th	10th	25th	50th	75th	90th	95th
Macronutrients										
Total fat (g)	29	0.4	n.a.	19	22	25	29	32	35	38
Saturated fat (g)	10	0.2	n.a.	7	7	8	10	11	13	14
Monounsaturated fat (g)	11	0.2	n.a.	7	8	9	11	13	15	17
Polyunsaturated fat (g)	5	0.1	n.a.	3	4	4	5	6	8	8
Linoleic acid (g)[b]	5	0.1	6	3	3	4	5	6	7	7
Alpha-linolenic acid (g)[b]	0.4	0.01	0.6	0.2	0.3	0.3	0.4	0.5	0.7	0.8
Carbohydrate (g)[c]	154	1.1	68	128	135	145	153	165	172	178
Protein (g)[c]	34	0.4	18	25	28	31	34	37	40	42
Vitamins										
Vitamin A (mcg RE)[c]	480	10.0	n.a.	280	320	385	470	559	664	695
Vitamin A (mcg RAE)[c]	489	10.3	316	283	324	396	480	565	658	706
Vitamin C (mg)[c]	65	2.5	24	22	30	45	63	82	101	119
Vitamin E (mg AT)[c]	2.2	0.08	6	1.2	1.4	1.7	2.0	2.4	3.0	4.1
Vitamin B_6 (mg)[c]	1.0	0.03	0.5	0.6	0.6	0.7	0.9	1.1	1.4	1.7
Vitamin B_{12} (mcg)[c]	3.5	0.10	0.9	2.0	2.1	2.5	3.3	4.2	5.3	5.4
Folate (mcg)[c]	225	7.3	n.a.	125	142	171	210	255	343	416
Folate (mcg DFE)[c]	322	11.8	158	170	186	232	289	365	511	642
Niacin (mg)[c]	10	0.2	6	7	7	8	10	11	13	16
Riboflavin (mg)[c]	1.7	0.03	0.5	1.2	1.3	1.4	1.6	1.9	2.1	2.2
Thiamin (mg)[c]	1.0	0.02	0.5	0.8	0.8	0.9	1.0	1.1	1.3	1.5
Minerals										
Calcium (mg)[c]	784	14.5	684	495	551	639	775	916	1,026	1,092
Iron (mg)[c]	9.3	0.25	4	5.9	6.2	7.3	8.7	10.4	12.7	14.6
Magnesium (mg)[c]	126	2.0	126	87	97	108	124	141	160	164
Phosphorus (mg)[c]	829	11.0	658	595	631	738	841	919	998	1,042
Potassium (mg)[b]	1,419	20.5	2368	1,011	1,092	1,245	1,422	1,580	1,752	1,869
Sodium (mg)[d]	1,375	20.6	< 1158	962	1,041	1,152	1,346	1,543	1,766	1,853
Zinc (mg)[c]	5.8	0.19	4	3.4	3.8	4.5	5.3	6.7	8.5	9.2
Other Components										
Cholesterol (mg)[e]	104	4.0	< 158	39	46	64	91	138	172	197
Dietary fiber (g)[e]	6	0.1	14	3	4	5	6	7	8	10
Number of Schools	**263**									

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Table G.22 *(continued)*

[a]The "per 1,000 calorie" reference standards are based on Dietary Reference Intakes and assume a 1,900 calorie diet for 9–13 year olds. These calorie levels represent weighted averages for each age group, assuming a moderately active level of physical activity for 9–13 year olds (IOM 2010).
[b]Reference standards is based on the Adequate Intake (AI), Institute of Medicine, IOM. Dietary Reference intakes: The essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006.
[c]Reference standard is based on the Recommended Dietary Allowance (RDA), IOM. Dietary Reference intakes: The essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006.
[d]Reference standard is based on the Upper Limit (UL), *Dietary Guidelines*, 2010 recommendation.
[e]Reference standard is based on the *Dietary Guidelines*, 2010 recommendation.

n.a. = Not applicable; AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalent; RAE = Retinol activity equivalent; SE=Standard error.

Table G.23. Average and Distribution of Nutrients per 1,000 Calories in School Breakfast Program Breakfasts *Served* to Students in High Schools

			Reference Standard[a]		Percentiles per 1,000 Calories						
	Average per 1,000 Calories	SE	Ages 14 – 18 Males	Ages 14 – 18 Females	5th	10th	25th	50th	75th	90th	95th
Macronutrients											
Total fat (g)	30	0.4	n.a.	n.a.	19	22	26	30	33	37	40
Saturated fat (g)	10	0.2	n.a.	n.a.	7	7	9	10	12	13	14
Monounsaturated fat (g)	11	0.2	n.a.	n.a.	6	7	9	11	13	15	17
Polyunsaturated fat (g)	6	0.1	n.a.	n.a.	3	4	4	5	7	8	8
Linoleic acid (g)[b]	5	0.1	6	6	3	3	4	5	6	7	7
Alpha-linolenic acid (g)[b]	0.5	0.01	0.6	0.6	0.2	0.3	0.3	0.4	0.5	0.7	0.9
Carbohydrate (g)[c]	153	1.2	50	65	123	132	144	154	165	172	175
Protein (g)[c]	33	0.4	20	23	24	26	30	33	37	40	42
Vitamins											
Vitamin A (mcg RE)[c]	467	10.2	n.a.	n.a.	265	304	367	464	539	624	722
Vitamin A (mcg RAE)[c]	475	10.6	346	350	275	313	373	468	546	653	728
Vitamin C (mg)[c]	67	2.4	29	33	19	32	46	65	83	108	116
Vitamin E (mg AT)[c]	2.2	0.06	6	8	1.2	1.4	1.7	2.1	2.5	3.2	3.7
Vitamin B_6 (mg)[c]	0.9	0.02	0.5	0.6	0.6	0.6	0.7	0.8	1.1	1.4	1.5
Vitamin B_{12} (mcg)[c]	3.2	0.09	0.9	1.2	1.7	2.0	2.4	3.0	3.8	4.8	5.4
Folate (mcg)[c]	224	5.8	n.a.	n.a.	125	135	170	215	264	328	370
Folate (mcg DFE)[c]	319	9.6	154	200	164	188	230	282	378	490	584
Niacin (mg)[c]	10	0.2	6	7	7	7	8	9	11	14	16
Riboflavin (mg)[c]	1.6	0.02	0.5	0.5	1.1	1.2	1.4	1.5	1.8	2.1	2.2
Thiamin (mg)[c]	1.0	0.02	0.5	0.5	0.8	0.8	0.9	1.0	1.2	1.4	1.4
Minerals											
Calcium (mg)[c]	747	13.9	500	650	448	530	622	741	865	964	1,041
Iron (mg)[c]	9.1	0.20	4	8	5.9	6.4	7.3	8.5	10.5	13.0	14.0
Magnesium (mg)[c]	124	1.6	158	180	89	97	107	123	140	151	155
Phosphorus (mg)[c]	798	11.1	481	625	564	616	691	806	879	960	1,028
Potassium (mg)[b]	1,398	19.1	1808	2350	993	1,108	1,220	1,408	1,568	1,691	1,820
Sodium (mg)[d]	1,379	24.4	< 885	< 1150	923	1,008	1,133	1,358	1,582	1,815	1,956
Zinc (mg)[c]	5.8	0.16	4	5	3.4	3.7	4.4	5.3	6.5	8.8	10.1
Other Components											
Cholesterol (mg)[e]	109	4.9	< 115	<150	39	49	64	94	132	190	211
Dietary fiber (g)[e]	6	0.1	14	14	4	4	5	6	7	8	9
Number of Schools	**257**										

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Table G.23 *(continued)*

[a]The "per 1,000 calorie" reference standards are based on Dietary Reference Intakes and assume a 2,600 calorie diet for 14–18 year old males and a 2,000 calorie diet for 14–18 year old females. These calorie levels represent weighted averages for each age group, assuming a moderately active level of physical activity for all 14–18 year olds (IOM 2010).
[b]Reference standards is based on the Adequate Intake (AI), Institute of Medicine, IOM. Dietary Reference intakes: The essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006.
[c]Reference standard is based on the Recommended Dietary Allowance (RDA), IOM. Dietary Reference intakes: The essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006.
[d]Reference standard is based on the Upper Limit (UL), *Dietary Guidelines*, 2010 recommendation.
[e]Reference standard is based on the *Dietary Guidelines*, 2010 recommendation.

n.a. = Not applicable; AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalent; RAE = Retinol activity equivalent; SE=Standard error.

Table G.24. Average and Distribution of Nutrients per 1,000 Calories in School Breakfast Program Breakfasts *Served* to Students in All Schools

	Average per 1,000 Calories	SE	Reference Standard[a] Ages 4 – 8 Males/ Females	Ages 9 – 13 Males/ Females	Ages 14 – 18 Males	Ages 14 – 18 Females	Percentiles per 1,000 Calories 5th	10th	25th	50th	75th	90th	95th
Macronutrients													
Total fat (g)	28	0.3	n.a.	n.a.	n.a.	n.a.	18	21	24	27	31	35	38
Saturated fat (g)	10	0.1	n.a.	n.a.	n.a.	n.a.	6	7	8	10	11	13	14
Monounsaturated fat (g)	10	0.2	n.a.	n.a.	n.a.	n.a.	6	7	8	10	12	14	16
Polyunsaturated fat (g)	5	0.1	n.a.	n.a.	n.a.	n.a.	3	3	4	5	6	7	8
Linoleic acid (g)[b]	5	0.1	6	6	6	6	3	3	4	5	6	7	7
Alpha-linolenic acid (g)[b]	0.4	0.01	0.5	0.6	0.6	0.6	0.2	0.2	0.3	0.4	0.5	0.7	0.7
Carbohydrate (g)[c]	157	0.8	76	68	50	65	131	138	148	159	168	175	181
Protein (g)[c]	34	0.3	11	18	20	23	26	29	31	34	37	40	42
Vitamins													
Vitamin A (mcg RE)[c]	533	8.1	n.a.	n.a.	n.a.	n.a.	315	350	435	515	611	722	780
Vitamin A (mcg RAE)[c]	540	8.5	235	316	346	350	310	349	433	521	625	729	784
Vitamin C (mg)[c]	66	1.5	15	24	29	33	25	36	46	63	85	105	114
Vitamin E (mg AT)[c]	2.2	0.05	4	6	6	8	1.2	1.4	1.6	2.0	2.4	3.0	3.8
Vitamin B_6 (mg)[c]	1.1	0.02	0.4	0.5	0.5	0.6	0.6	0.6	0.8	1.0	1.3	1.6	1.9
Vitamin B_{12} (mcg)[c]	4.0	0.07	0.7	0.9	0.9	1.2	2.0	2.3	2.9	3.8	4.8	5.7	6.3
Folate (mcg)[c]	247	4.9	n.a.	n.a.	n.a.	n.a.	131	149	180	231	292	367	412
Folate (mcg DFE)[c]	358	8.1	118	158	154	200	175	204	251	330	434	565	633
Niacin (mg)[c]	11	0.2	5	6	6	7	7	7	8	10	12	15	18
Riboflavin (mg)[c]	1.8	0.02	0.4	0.5	0.5	0.5	1.2	1.3	1.5	1.8	2.0	2.3	2.5
Thiamin (mg)[c]	1.1	0.01	0.4	0.5	0.5	0.5	0.8	0.8	0.9	1.0	1.2	1.5	1.6
Minerals													
Calcium (mg)[c]	842	9.1	588	684	500	650	547	593	723	854	953	1,075	1,146
Iron (mg)[c]	10.0	0.19	6	4	4	8	5.9	6.5	7.6	9.3	11.7	15.0	17.4
Magnesium (mg)[c]	133	1.3	76	126	158	180	97	103	116	132	148	162	173
Phosphorus (mg)[c]	851	6.6	294	658	481	625	625	673	777	859	933	1,001	1,041
Potassium (mg)[b]	1,484	11.6	2235	2368	1808	2350	1,114	1,181	1,317	1,497	1,636	1,767	1,848
Sodium (mg)[d]	1,331	14.5	< 1118	< 1158	< 885	< 1150	919	1,010	1,133	1,307	1,497	1,724	1,825
Zinc (mg)[c]	6.5	0.12	3	4	4	5	3.8	4.1	5.0	6.0	7.5	9.2	10.9
Other Components													
Cholesterol (mg)[e]	103	3.0	< 176	< 158	< 115	<150	42	47	64	91	125	172	197
Dietary fiber (g)[e]	6	0.1	14	14	14	14	4	4	5	6	7	9	10
Number of Schools	**802**												

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Table G.24 *(continued)*

[a]The "per 1,000 calorie" reference standards are based on Dietary Reference Intakes and assume a 1,700 calorie diet for 4–8 year olds, a 1,900 calorie diet for 9–13 year olds, a 2,600 calorie diet for 14–18 year old males and a 2,000 calorie diet for 14–18 year old females. These calorie levels represent weighted averages for each age group, assuming an active level of physical activity for 4–8 year olds and a moderately active level of physical activity for 9–13 and 14–18 year olds (IOM 2010).
[b]Reference standards is based on the Adequate Intake (AI), Institute of Medicine, IOM. Dietary Reference intakes: The essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006.
[c]Reference standard is based on the Recommended Dietary Allowance (RDA), IOM. Dietary Reference intakes: The essential guide to nutrient requirements. Washington (DC): The National Academies Press; 2006.
[d]Reference standard is based on the Upper Limit (UL), *Dietary Guidelines*, 2010 recommendation.
[e]Reference standard is based on the *Dietary Guidelines*, 2010 recommendation.

n.a. = Not applicable; AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalent; RAE = Retinol activity equivalent; SE=Standard error.

Table G.25. Average Calorie and Nutrient Content of School Breakfast Program Breakfasts *Offered* to Students, by Menu Planning System *All Schools*

	Food-Based			Nutrient-Based (NSMP or ANSMP)
	Traditional	Enhanced	All Food-Based	
Average Amount				
Calories	459	487	467	513
Macronutrients				
Total fat (g)	12	13	12	13
Saturated fat (g)	4	5	4	5
Monounsaturated fat (g)	4	5	4	5
Polyunsaturated fat (g)	2	2	2	3
Linoleic acid (g)	2	2	2	2
Alpha-linolenic acid (g)	0.2	0.2	0.2	0.2
Carbohydrate (g)	75	79	76	83
Protein (g)	16	16	16	18
Vitamins				
Vitamin A (mcg RE)	270	284	274	290
Vitamin A (mcg RAE)	274	287	278	292
Vitamin C (mg)	33	35	34	33
Vitamin E (mg AT)	1.0	1.1	1.0	1.3
Vitamin B_6 (mg)	0.5	0.6	0.6	0.6
Vitamin B_{12} (mcg)	2.1	2.2	2.1	2.2
Folate (mcg)	120	129	123	146
Folate (mcg DFE)	176	190	180	216
Niacin (mg)	5	5	5	6
Riboflavin (mg)	0.9	0.9	0.9	1.0
Thiamin (mg)	0.5	0.5	0.5	0.6
Minerals				
Calcium (mg)	422	438	427	448
Iron (mg)	4.8	5.0	4.8	5.6
Magnesium (mg)	64	67	65	72
Phosphorus (mg)	398	412	402	440
Potassium (mg)	724	748	731	774
Sodium (mg)	555	552	554	655
Zinc (mg)	3.2	3.4	3.2	3.5
Other Dietary Components				
Cholesterol (mg)	40	40	40	48
Dietary fiber (g)	3	3	3	4
Dietary fiber (g/1,000 calories)	6	6	6	7
Average Percentage of Calories from:				
Total fat	22.4	23.0	22.6	22.7
Saturated fat	8.2	8.4	8.3	8.1
Monounsaturated fat	8.1	8.3	8.1	8.3
Polyunsaturated fat	4.4	4.5	4.4	4.5
Linoleic acid	3.9	4.0	3.9	4.0
Alpha-linolenic acid	0.4	0.4	0.4	0.4
Carbohydrate	65.4	65.0	65.3	65.0
Protein	13.8	13.5	13.7	14.1
Number of Schools	**396**	**159**	**555**	**248**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents; NSMP = Nutrient Standard Menu Planning; ANSMP = Assisted Nutrient Standard Menu Planning.

Table G.26. Average Calorie and Nutrient Content of School Breakfast Program Breakfasts *Served* to Students, by Menu Planning System *All Schools*

	Food-Based			Nutrient-Based (NSMP or ANSMP)
	Traditional	Enhanced	All Food-Based	
Average Amount				
Calories	465	475	468	444
Macronutrients				
Total fat (g)	13	13	13	12
Saturated fat (g)	5	5	5	4
Monounsaturated fat (g)	5	5	5	5
Polyunsaturated fat (g)	3	2	2	2
Linoleic acid (g)	2	2	2	2
Alpha-linolenic acid (g)	0.2	0.2	0.2	0.2
Carbohydrate (g)	73	74	73	70
Protein (g)	16	16	16	15
Vitamins				
Vitamin A (mcg RE)	241	258	246	233
Vitamin A (mcg RAE)	244	258	248	237
Vitamin C (mg)	30	31	30	30
Vitamin E (mg AT)	1.0	1.0	1.0	1.0
Vitamin B_6 (mg)	0.5	0.5	0.5	0.5
Vitamin B_{12} (mcg)	1.8	1.9	1.8	1.7
Folate (mcg)	107	118	110	115
Folate (mcg DFE)	154	173	160	167
Niacin (mg)	5	5	5	5
Riboflavin (mg)	0.8	0.9	0.8	0.8
Thiamin (mg)	0.5	0.5	0.5	0.5
Minerals				
Calcium (mg)	387	393	389	364
Iron (mg)	4.4	4.8	4.5	4.6
Magnesium (mg)	61	61	61	59
Phosphorus (mg)	396	399	397	371
Potassium (mg)	686	687	686	652
Sodium (mg)	629	623	627	594
Zinc (mg)	2.9	3.2	3.0	2.9
Other Dietary Components				
Cholesterol (mg)	49	49	49	46
Dietary fiber (g)	3	3	3	3
Dietary fiber (g/1,000 calories)	6	6	6	7
Average Percentage of Calories from:				
Total fat	24.8	25.1	24.9	24.4
Saturated fat	8.8	9.0	8.9	8.5
Monounsaturated fat	9.3	9.5	9.3	9.2
Polyunsaturated fat	4.7	4.6	4.7	4.8
Linoleic acid	4.2	4.1	4.2	4.3
Alpha-linolenic acid	0.4	0.4	0.4	0.4
Carbohydrate	62.9	62.5	62.8	63.4
Protein	13.7	13.6	13.7	13.7
Number of Schools	**396**	**159**	**555**	**247**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents; NSMP = Nutrient Standard Menu Planning; ANSMP = Assisted Nutrient Standard Menu Planning.

Table G.27. Average and Distribution of Calories and Nutrients in School Breakfast Program Breakfasts *Offered* to Students in Schools with a Traditional Food-Based Menu Planning System *All Schools*

			Percentiles						
	Average	SE	5th	10th	25th	50th	75th	90th	95th
Calories	459	4.7	374	392	412	449	494	540	581
Macronutrients									
Total fat (g)	12	0.3	6	7	9	11	14	16	18
Saturated fat (g)	4	0.1	2	3	3	4	5	6	7
Monounsaturated fat (g)	4	0.1	2	2	3	4	5	6	7
Polyunsaturated fat (g)	2	0.1	1	1	2	2	3	3	4
Linoleic acid (g)	2	0.1	1	1	1	2	2	3	3
Alpha-linolenic acid (g)	0.2	0.01	0.1	0.1	0.1	0.2	0.2	0.3	0.3
Carbohydrate (g)	75	0.8	57	61	68	74	81	88	93
Protein (g)	16	0.2	13	13	14	15	17	18	19
Vitamins									
Vitamin A (mcg RE)	270	4.6	185	198	231	264	304	344	387
Vitamin A (mcg RAE)	274	4.8	178	195	235	265	309	354	391
Vitamin C (mg)	33	0.9	18	22	26	33	38	46	48
Vitamin E (mg AT)	1.0	0.04	0.4	0.5	0.6	0.9	1.1	1.6	2.1
Vitamin B_6 (mg)	0.5	0.01	0.3	0.3	0.4	0.5	0.6	0.7	0.8
Vitamin B_{12} (mcg)	2.1	0.04	1.4	1.5	1.8	2.1	2.4	2.6	2.9
Folate (mcg)	120	3.1	66	74	91	116	143	163	191
Folate (mcg DFE)	176	5.1	87	97	130	167	211	250	293
Niacin (mg)	5	0.1	3	3	4	5	6	7	8
Riboflavin (mg)	0.9	0.01	0.7	0.7	0.8	0.9	1.0	1.0	1.1
Thiamin (mg)	0.5	0.01	0.3	0.4	0.4	0.5	0.6	0.7	0.7
Minerals									
Calcium (mg)	422	3.9	349	368	390	414	457	493	506
Iron (mg)	4.8	0.12	2.6	2.9	3.7	4.7	5.6	6.6	7.6
Magnesium (mg)	64	0.7	51	54	58	63	69	76	82
Phosphorus (mg)	398	3.3	340	349	373	397	417	453	484
Potassium (mg)	724	5.9	622	641	681	713	765	818	856
Sodium (mg)	555	11.2	405	430	467	539	605	695	780
Zinc (mg)	3.2	0.07	2.0	2.1	2.5	3.0	3.6	4.4	4.6
Other Components									
Cholesterol (mg)	40	2.1	16	18	26	35	46	61	76
Dietary fiber (g)	3	0.1	1	2	2	3	3	4	5

Table G.27 *(continued)*

			Percentiles						
	Average	SE	5th	10th	25th	50th	75th	90th	95th
Percentage of Calories from:									
Total fat	22.4	0.41	14.6	16.1	18.9	22.4	25.4	29.2	31.3
Saturated fat	8.2	0.20	4.6	5.3	6.8	8.1	9.4	10.9	12.1
Monosaturated fat	8.1	0.18	4.2	4.9	6.4	7.8	9.5	11.3	12.5
Polyunsaturated fat	4.4	0.10	2.3	2.7	3.4	4.3	5.1	6.0	6.6
Linoleic acid	3.9	0.09	2.0	2.4	3.0	3.8	4.6	5.4	5.9
Alpha-linolenic acid	0.4	0.01	0.2	0.2	0.3	0.3	0.5	0.6	0.7
Carbohydrate	65.4	0.48	54.1	57.8	61.9	65.7	69.5	72.7	74.5
Protein	13.8	0.12	11.0	11.9	12.6	13.8	14.8	15.9	16.6
Number of Schools	**396**								

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalent; RAE = Retinol activity equivalent; SE=Standard error.

Table G.28. Average and Distribution of Calories and Nutrients in School Breakfast Program Breakfasts *Offered* to Students in Schools with an Enhanced Food-Based Menu Planning System *All Schools*

			Percentiles						
	Average	SE	5th	10th	25th	50th	75th	90th	95th
Calories	487	8.0	377~	406	442	480	512	585	618~
Macronutrients									
Total fat (g)	13	0.4	8~	8	10	12	14	17	19~
Saturated fat (g)	5	0.1	2~	3	4	5	5	6	7~
Monounsaturated fat (g)	5	0.2	2~	3	3	4	5	7	8~
Polyunsaturated fat (g)	2	0.1	1~	1	2	2	3	4	4~
Linoleic acid (g)	2	0.1	1~	1	2	2	3	4	4~
Alpha-linolenic acid (g)	0.2	0.01	0.1~	0.1	0.1	0.2	0.3	0.3	0.4~
Carbohydrate (g)	79	1.5	61~	63	69	77	87	97	100~
Protein (g)	16	0.2	14~	14	15	16	17	19	20~
Vitamins									
Vitamin A (mcg RE)	284	7.9	197~	211	247	276	315	367	395~
Vitamin A (mcg RAE)	287	7.8	187~	209	246	287	315	363	389~
Vitamin C (mg)	35	1.5	18~	20	27	33	38	52	58~
Vitamin E (mg AT)	1.1	0.10	0.5~	0.5	0.7	0.9	1.2	1.8	2.7~
Vitamin B_6 (mg)	0.6	0.03	0.3~	0.4	0.5	0.5	0.7	0.8	1.0~
Vitamin B_{12} (mcg)	2.2	0.07	1.4~	1.6	1.8	2.1	2.5	2.9	3.2~
Folate (mcg)	129	5.8	68~	75	104	125	152	166	204~
Folate (mcg DFE)	190	9.8	91~	97	143	185	231	249	314~
Niacin (mg)	5	0.2	3~	3	4	5	6	7	9~
Riboflavin (mg)	0.9	0.02	0.7~	0.8	0.9	0.9	1.0	1.1	1.2~
Thiamin (mg)	0.5	0.02	0.3~	0.4	0.5	0.5	0.6	0.7	0.8~
Minerals									
Calcium (mg)	438	7.5	364~	381	398	427	466	502	563~
Iron (mg)	5.0	0.20	2.7~	3.0	4.0	5.0	5.6	6.8	8.3~
Magnesium (mg)	67	1.9	52~	55	60	64	72	83	90~
Phosphorus (mg)	412	6.0	342~	363	383	400	434	473	519~
Potassium (mg)	748	8.9	638~	659	703	740	788	840	873~
Sodium (mg)	552	16.4	348~	401	476	533	609	730	809~
Zinc (mg)	3.4	0.13	1.9~	2.2	2.8	3.3	4.1	4.7	5.0~
Other Components									
Cholesterol (mg)	40	2.1	20~	24	28	35	47	61	78~
Dietary fiber (g)	3	0.1	1~	2	2	3	4	4	5~

Table G.28 *(continued)*

	Average	SE	Percentiles						
			5th	10th	25th	50th	75th	90th	95th
Percentage of Calories from:									
Total fat	23.0	0.46	15.8~	17.5	20.1	22.4	25.8	28.3	29.7~
Saturated fat	8.4	0.23	5.0~	5.5	7.3	8.4	9.6	10.8	11.9~
Monosaturated fat	8.3	0.25	5.5~	5.7	6.9	7.8	9.4	10.4	11.9~
Polyunsaturated fat	4.5	0.18	2.3~	2.5	3.3	4.3	5.6	6.6	7.3~
Linoleic acid	4.0	0.16	2.0~	2.3	3.0	3.8	5.0	6.0	6.6~
Alpha-linolenic acid	0.4	0.02	0.2~	0.2	0.3	0.3	0.5	0.6	0.7~
Carbohydrate	65.0	0.57	56.7~	57.5	62.2	65.8	68.1	70.5	73.4~
Protein	13.5	0.26	10.1~	10.7	12.3	13.7	14.5	15.7	16.1~
Number of Schools	**159**								

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalent; RAE = Retinol activity equivalent; SE=Standard error.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table G.29. Average and Distribution of Calories and Nutrients in School Breakfast Program Breakfasts *Offered* to Students in Schools with a Nutrient-Based Menu Planning System *All Schools*

			Percentiles						
	Average	SE	5th	10th	25th	50th	75th	90th	95th
Calories	513	18.4	313~	342	390	473	577	717	890~
Macronutrients									
Total fat (g)	13	0.6	5~	6	9	12	15	22	27~
Saturated fat (g)	5	0.2	2~	2	3	4	6	7	10~
Monounsaturated fat (g)	5	0.3	2~	2	3	5	6	8	10~
Polyunsaturated fat (g)	3	0.1	1~	1	2	2	3	4	5~
Linoleic acid (g)	2	0.1	1~	1	1	2	3	4	5~
Alpha-linolenic acid (g)	0.2	0.01	0.1~	0.1	0.1	0.2	0.3	0.4	0.4~
Carbohydrate (g)	83	2.9	53~	57	62	76	95	116	136~
Protein (g)	18	0.6	12~	12	14	16	20	24	29~
Vitamins									
Vitamin A (mcg RE)	290	11.6	198~	211	230	256	332	407	447~
Vitamin A (mcg RAE)	292	11.5	193~	207	228	257	339	413	459~
Vitamin C (mg)	33	2.0	11~	17	23	31	41	52	60~
Vitamin E (mg AT)	1.3	0.09	0.5~	0.5	0.7	1.0	1.4	2.3	3.2~
Vitamin B_6 (mg)	0.6	0.04	0.3~	0.3	0.4	0.5	0.7	0.9	1.0~
Vitamin B_{12} (mcg)	2.2	0.10	1.4~	1.5	1.7	2.0	2.5	3.3	3.7~
Folate (mcg)	146	10.3	66~	77	95	125	169	223	268~
Folate (mcg DFE)	216	16.9	88~	100	134	183	252	340	422~
Niacin (mg)	6	0.5	3~	3	4	5	7	9	10~
Riboflavin (mg)	1.0	0.04	0.7~	0.7	0.8	0.9	1.1	1.3	1.4~
Thiamin (mg)	0.6	0.07	0.3~	0.3	0.4	0.5	0.7	0.9	1.0~
Minerals									
Calcium (mg)	448	12.7	351~	367	383	416	468	559	649~
Iron (mg)	5.6	0.35	2.5~	2.8	3.5	4.9	6.8	9.6	10.9~
Magnesium (mg)	72	2.7	51~	53	58	67	77	93	111~
Phosphorus (mg)	440	13.3	307~	329	366	405	473	594	751~
Potassium (mg)	774	15.7	607~	630	668	735	825	993	1,046~
Sodium (mg)	655	31.9	311~	380	460	568	801	1,056	1,360~
Zinc (mg)	3.5	0.17	2.0~	2.3	2.6	3.3	3.8	5.5	6.1~
Other Components									
Cholesterol (mg)	48	3.1	16~	21	28	39	61	90	107~
Dietary fiber (g)	4	0.2	2~	2	3	3	4	6	7~

Table G.29 *(continued)*

	Average	SE	Percentiles						
			5th	10th	25th	50th	75th	90th	95th
Percentage of Calories from:									
Total fat	22.7	0.49	14.0~	16.2	19.7	22.6	26.3	28.5	30.6~
Saturated fat	8.1	0.20	5.5~	5.7	6.6	8.0	9.7	10.4	10.8~
Monosaturated fat	8.3	0.23	4.7~	5.3	6.6	8.2	9.7	11.7	12.4~
Polyunsaturated fat	4.5	0.14	2.3~	2.6	3.3	4.4	5.5	6.3	6.8~
Linoleic acid	4.0	0.13	2.1~	2.4	3.0	3.9	5.0	5.7	6.1~
Alpha-linolenic acid	0.4	0.01	0.2~	0.2	0.3	0.4	0.4	0.5	0.6~
Carbohydrate	65.0	0.55	55.6~	58.1	60.8	65.2	69.1	71.9	74.1~
Protein	14.1	0.18	11.6~	12.0	12.8	14.1	15.1	16.4	17.4~
Number of Schools	**248**								

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009-2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalent; RAE = Retinol activity equivalent; SE=Standard error.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table G.30. Average and Distribution of Calories and Nutrients in School Breakfast Program Breakfasts *Served* to Students in Schools with a Traditional Food-Based Menu Planning System *All Schools*

			Percentiles						
	Average	SE	5th	10th	25th	50th	75th	90th	95th
Calories	465	9.9	327	356	395	445	501	570	616
Macronutrients									
Total fat (g)	13	0.4	7	8	10	12	15	19	22
Saturated fat (g)	5	0.2	2	3	3	4	5	7	8
Monounsaturated fat (g)	5	0.2	2	2	3	4	6	8	9
Polyunsaturated fat (g)	3	0.1	1	1	2	2	3	4	4
Linoleic acid (g)	2	0.1	1	1	2	2	3	3	4
Alpha-linolenic acid (g)	0.2	0.01	0.1	0.1	0.1	0.2	0.2	0.3	0.3
Carbohydrate (g)	73	1.5	50	56	63	69	78	87	97
Protein (g)	16	0.4	10	11	13	15	18	20	23
Vitamins									
Vitamin A (mcg RE)	241	6.5	123	148	183	228	278	331	363
Vitamin A (mcg RAE)	244	6.5	120	153	189	235	285	332	382
Vitamin C (mg)	30	0.9	11	14	22	28	36	46	51
Vitamin E (mg AT)	1.0	0.04	0.4	0.5	0.7	0.9	1.2	1.5	1.8
Vitamin B_6 (mg)	0.5	0.01	0.3	0.3	0.3	0.4	0.6	0.7	0.8
Vitamin B_{12} (mcg)	1.8	0.05	0.8	1.0	1.4	1.7	2.0	2.5	2.7
Folate (mcg)	107	3.2	60	66	80	97	120	154	179
Folate (mcg DFE)	154	5.0	76	89	112	140	173	237	275
Niacin (mg)	5	0.1	3	3	4	4	5	7	9
Riboflavin (mg)	0.8	0.02	0.5	0.6	0.7	0.8	0.9	1.1	1.1
Thiamin (mg)	0.5	0.01	0.3	0.3	0.4	0.5	0.5	0.7	0.8
Minerals									
Calcium (mg)	387	8.6	217	254	336	389	426	477	504
Iron (mg)	4.4	0.11	2.5	2.9	3.3	4.0	5.1	6.5	7.6
Magnesium (mg)	61	1.3	39	44	51	59	67	77	83
Phosphorus (mg)	396	8.7	239	277	334	378	437	502	536
Potassium (mg)	686	14.2	447	501	582	677	750	808	903
Sodium (mg)	629	17.3	344	394	476	580	728	886	1,035
Zinc (mg)	2.9	0.08	1.6	1.8	2.2	2.7	3.3	4.1	4.7
Other Components									
Cholesterol (mg)	49	2.6	16	20	27	42	60	82	97
Dietary fiber (g)	3	0.1	1	2	2	3	3	4	5

Table G.30 *(continued)*

			Percentiles						
	Average	SE	5th	10th	25th	50th	75th	90th	95th
Percentage of Calories from:									
Total fat	24.8	0.42	16.3	18.1	21.0	24.2	28.3	31.9	34.3
Saturated fat	8.8	0.19	5.2	6.0	7.1	8.6	10.1	11.4	12.5
Monosaturated fat	9.3	0.20	4.9	5.6	7.4	8.9	10.9	13.1	14.4
Polyunsaturated fat	4.7	0.11	2.6	3.1	3.7	4.6	5.6	6.6	7.2
Linoleic acid	4.2	0.10	2.3	2.7	3.3	4.1	5.0	5.9	6.3
Alpha-linolenic acid	0.4	0.01	0.2	0.2	0.3	0.4	0.5	0.6	0.7
Carbohydrate	62.9	0.50	50.6	54.0	58.9	63.7	67.5	70.6	72.7
Protein	13.7	0.14	10.4	11.4	12.5	13.6	14.9	16.1	16.6
Number of Schools	**396**								

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalent; RAE = Retinol activity equivalent; SE=Standard error.

Table G.31. Average and Distribution of Calories and Nutrients in School Breakfast Program Breakfasts *Served* to Students in Schools with an Enhanced Food-Based Menu Planning System *All Schools*

			Percentiles						
	Average	SE	5th	10th	25th	50th	75th	90th	95th
Calories	475	9.6	371~	385	414	466	506	585	630~
Macronutrients									
Total fat (g)	13	0.5	7~	9	11	12	16	19	21~
Saturated fat (g)	5	0.2	3~	3	4	5	5	7	7~
Monounsaturated fat (g)	5	0.2	3~	3	4	5	6	8	9~
Polyunsaturated fat (g)	2	0.1	1~	1	2	2	3	4	4~
Linoleic acid (g)	2	0.1	1~	1	2	2	3	3	4~
Alpha-linolenic acid (g)	0.2	0.01	0.1~	0.1	0.1	0.2	0.2	0.3	0.4~
Carbohydrate (g)	74	1.7	53~	59	63	70	84	93	97~
Protein (g)	16	0.4	12~	12	14	16	18	20	23~
Vitamins									
Vitamin A (mcg RE)	258	10.8	156~	160	201	233	305	382	443~
Vitamin A (mcg RAE)	258	10.7	155~	161	199	238	301	376	438~
Vitamin C (mg)	31	1.8	15~	17	20	29	38	51	56~
Vitamin E (mg AT)	1.0	0.04	0.5~	0.5	0.7	1.0	1.2	1.4	1.7~
Vitamin B_6 (mg)	0.5	0.03	0.3~	0.3	0.4	0.5	0.6	0.8	0.9~
Vitamin B_{12} (mcg)	1.9	0.09	1.0~	1.1	1.3	1.8	2.2	2.8	3.3~
Folate (mcg)	118	6.4	63~	67	79	109	143	187	206~
Folate (mcg DFE)	173	10.6	85~	91	105	158	213	283	326~
Niacin (mg)	5	0.3	3~	3	4	5	6	8	9~
Riboflavin (mg)	0.9	0.03	0.6~	0.6	0.7	0.8	0.9	1.2	1.2~
Thiamin (mg)	0.5	0.02	0.3~	0.4	0.4	0.5	0.6	0.7	0.9~
Minerals									
Calcium (mg)	393	9.9	272~	286	328	387	456	497	531~
Iron (mg)	4.8	0.22	2.6~	3.0	3.4	4.5	5.7	7.2	7.8~
Magnesium (mg)	61	1.6	42~	46	50	58	69	82	87~
Phosphorus (mg)	399	9.2	290~	303	329	395	452	502	519~
Potassium (mg)	687	14.0	498~	527	584	666	764	860	880~
Sodium (mg)	623	25.5	368~	384	462	582	727	907	1,006~
Zinc (mg)	3.2	0.17	1.7~	1.9	2.2	2.8	3.8	5.3	5.9~
Other Components									
Cholesterol (mg)	49	4.1	18~	22	28	37	58	95	111~
Dietary fiber (g)	3	0.1	1~	2	2	3	3	3	4~

Table G.31 *(continued)*

	Average	SE	Percentiles						
			5th	10th	25th	50th	75th	90th	95th
Percentage of Calories from:									
Total fat	25.1	0.59	17.1~	19.6	22.2	24.3	27.7	31.2	34.4~
Saturated fat	9.0	0.26	6.0~	6.7	7.4	8.9	10.1	12.0	13.1~
Monosaturated fat	9.5	0.34	5.6~	6.7	7.5	9.1	10.6	13.5	14.5~
Polyunsaturated fat	4.6	0.14	2.4~	2.8	3.7	4.4	5.3	6.6	7.1~
Linoleic acid	4.1	0.13	2.1~	2.6	3.3	3.9	4.7	6.0	6.4~
Alpha-linolenic acid	0.4	0.01	0.2~	0.2	0.3	0.3	0.4	0.6	0.6~
Carbohydrate	62.5	0.77	52.7~	55.3	59.3	63.3	66.5	68.6	70.7~
Protein	13.6	0.29	10.2~	10.7	12.4	13.3	14.6	16.5	17.5~
Number of Schools	**159**								

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalent; RAE = Retinol activity equivalent; SE=Standard error.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table G.32. Average and Distribution of Calories and Nutrients in School Breakfast Program Breakfasts *Served* to Students in Schools with a Nutrient-Based Menu Planning System *All Schools*

			Percentiles						
	Average	SE	5th	10th	25th	50th	75th	90th	95th
Calories	444	8.8	279~	316	378	439	512	575	608~
Macronutrients									
Total fat (g)	12	0.3	7~	7	9	12	14	17	20~
Saturated fat (g)	4	0.1	2~	3	3	4	5	6	7~
Monounsaturated fat (g)	5	0.2	2~	3	3	5	6	7	8~
Polyunsaturated fat (g)	2	0.1	1~	1	2	2	3	4	4~
Linoleic acid (g)	2	0.1	1~	1	2	2	2	3	4~
Alpha-linolenic acid (g)	0.2	0.01	0.1~	0.1	0.1	0.2	0.2	0.3	0.4~
Carbohydrate (g)	70	1.5	42~	49	59	70	82	90	98~
Protein (g)	15	0.3	9~	10	13	16	17	19	21~
Vitamins									
Vitamin A (mcg RE)	233	7.0	139~	152	189	223	260	328	381~
Vitamin A (mcg RAE)	237	7.3	141~	153	193	227	272	342	380~
Vitamin C (mg)	30	1.5	8~	12	19	28	39	47	57~
Vitamin E (mg AT)	1.0	0.05	0.5~	0.6	0.7	0.9	1.2	1.6	2.1~
Vitamin B_6 (mg)	0.5	0.02	0.3~	0.3	0.4	0.4	0.6	0.7	0.9~
Vitamin B_{12} (mcg)	1.7	0.06	1.0~	1.0	1.4	1.6	2.0	2.6	3.0~
Folate (mcg)	115	4.3	63~	70	86	106	136	183	188~
Folate (mcg DFE)	167	7.1	85~	97	120	149	203	273	292~
Niacin (mg)	5	0.2	3~	3	4	5	6	7	8~
Riboflavin (mg)	0.8	0.02	0.5~	0.6	0.7	0.8	0.9	1.1	1.1~
Thiamin (mg)	0.5	0.01	0.3~	0.3	0.4	0.5	0.5	0.7	0.7~
Minerals									
Calcium (mg)	364	8.4	232~	246	306	367	418	455	518~
Iron (mg)	4.6	0.17	2.5~	2.9	3.4	4.3	5.3	7.0	7.9~
Magnesium (mg)	59	1.2	40~	43	49	58	68	77	79~
Phosphorus (mg)	371	7.8	233~	251	316	380	419	467	501~
Potassium (mg)	652	12.9	395~	473	538	673	746	820	897~
Sodium (mg)	594	15.7	340~	371	464	586	725	817	922~
Zinc (mg)	2.9	0.10	1.6~	1.8	2.2	2.7	3.4	4.3	5.2~
Other Components									
Cholesterol (mg)	46	2.1	13~	19	30	42	56	80	92~
Dietary fiber (g)	3	0.1	2~	2	2	3	3	5	5~

Table G.32 *(continued)*

			Percentiles						
	Average	SE	5th	10th	25th	50th	75th	90th	95th
Percentage of Calories from:									
Total fat	24.4	0.43	17.5~	18.7	21.3	24.4	27.7	29.9	31.4~
Saturated fat	8.5	0.18	5.7~	6.5	7.2	8.4	9.5	10.7	11.4~
Monosaturated fat	9.2	0.24	5.8~	6.3	7.4	8.8	10.7	12.3	13.7~
Polyunsaturated fat	4.8	0.12	2.8~	3.1	3.9	4.6	5.7	6.6	7.2~
Linoleic acid	4.3	0.11	2.5~	2.7	3.4	4.2	5.1	6.0	6.3~
Alpha-linolenic acid	0.4	0.02	0.2~	0.2	0.3	0.4	0.5	0.6	0.7~
Carbohydrate	63.4	0.51	54.2~	57.0	59.7	64.1	67.4	69.3	71.2~
Protein	13.7	0.18	11.1~	11.7	12.6	13.6	14.9	16.1	16.5~
Number of Schools	**247**								

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

AT = Alpha-tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalent; RAE = Retinol activity equivalent; SE=Standard error.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table G.33. Average Calorie and Nutrient Content of School Breakfast Program Breakfasts *Offered,* Relative to SMI Nutrition Standards and Related Benchmarks, by School Size

		School Size			
	Standard/ Recommendation	Small (Less than 500 Students)	Medium (500–999 Students)	Large (1,000 or more Students)	All Schools
Average Percentage of 1989 REA/RDA					
Calories	25%	22.3	22.8	22.1	22.5
Protein	25%	50.1	50.4$^{\beta}$	38.2$^{\gamma}$	48.9
Vitamin A[a]	25%	40.2$^{\alpha}$	37.9$^{\beta}$	31.7$^{\gamma}$	38.4
Vitamin C	25%	67.8	72.2	66.1	69.2
Calcium	25%	46.7	47.2$^{\beta}$	37.8$^{\gamma}$	45.9
Iron	25%	45.3	44.9$^{\beta}$	40.3$^{\gamma}$	44.6
Average Percentage of Calories from:					
Total Fat	≤ 30%[b]	22.8	22.1	23.2	22.6
Saturated Fat	< 10%	8.5$^{\alpha}$	7.9	8.1	8.2
Average Amount					
Cholesterol	< 75 mg[c,d]	41	42$^{\beta}$	51$^{\gamma}$	42
Sodium	< 575 mg[c,d]	560	582$^{\beta}$	693$^{\gamma}$	583
Dietary Fiber (g/1,000 calories)	14[c]	6$^{\alpha}$	7	7$^{\gamma}$	6
Number of Schools		**322**	**288**	**193**	**803**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).
[b]The 2010 *Dietary Guidelines for Americans* recommendation for the percentage of calories from total fat is 25–35%.
[c]Based on the 2010 *Dietary Guidelines for Americans*.
[d]Benchmarks are one-quarter of suggested maximum daily intake.

RDA = Recommended Dietary Allowance; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between small and medium size schools is significantly different from zero at the .05 level.
[β]Difference between middle and large size schools is significantly different from zero at the .05 level.
[γ]Difference between small and large size schools is significantly different from zero at the .05 level.

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Table G.34. Proportion of Schools *Offering* School Breakfast Program Breakfasts that Satisfied Each of the SMI Nutrition Standards and Related Benchmarks and Different Combinations of the Standards and Benchmarks, by School Size

		School Size			
	Standard/ Recommendation	Small (Less than 500 Students)	Medium (500–999 Students)	Large (1,000 or more Students)	All Schools
SMI Nutrition Standards					
Calories	25% of 1989 REA	19.1	22.3	18.6	20.2
Protein	25% of 1989 RDA	>97	>97	>97	>97
Vitamin A	25% of 1989 RDA[a]	93.5	92.5	86.4	92.3
Vitamin C	25% of 1989 RDA	96.1~	>97	>97	97.0
Calcium	25% of 1989 RDA	>97	>97	>97	>97
Iron	25% of 1989 RDA	89.9	93.1	93.6~	91.5
Percentage of Calories from Total Fat	≤ 30%	91.5	95.7~	93.2	93.2
Percentage of Calories from Saturated Fat	< 10%	78.0	85.1	84.6	81.3
Other Nutrition Benchmarks					
Percentage of Calories from Total Fat	25% – 35%[b]	29.3	27.2	37.4	29.4
Cholesterol	< 75 mg[b,c]	93	92[β]	81[γ]	91
Sodium	< 575 mg[b,c]	67	60[β]	44[γ]	62
Dietary Fiber (g/1,000 calories)	14[b]	<3	<3	<3	<3
Combinations of Standards					
All SMI Standards		13.1	17.9	12.2	14.7
SMI Standards for all RDA Nutrients[c]		83.6	86.7	82.8	84.6
SMI Standards for all RDA Nutrients[d] and SMI Standard for Saturated Fat		68.1	74.3	70.0	70.6
SMI Standards for all RDA Nutrients[d] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		10.7	16.4	20.7[γ]	13.9
Updated Standards for all RDA Nutrients[e] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		6.9	10.7	10.9	8.7
Number of Schools		**322**	**288**	**193**	**803**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Table G.34 *(continued)*

[a]In retinol equivalents (RE).
[b]Based on the 2010 *Dietary Guidelines for Americans*.
[c]Benchmarks are one-quarter of suggested maximum daily intake.
[d]Includes protein, vitamin A, vitamin C, calcium and iron.
[e]Updated to reflect RDA values included in the Dietary Reference Intakes.

RDA = Recommended Dietary Allowance; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between small and medium size schools is significantly different from zero at the .05 level.
[β]Difference between middle and large size schools is significantly different from zero at the .05 level.
[γ]Difference between small and large size schools is significantly different from zero at the .05 level.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table G.35. Average Calorie and Nutrient Content of School Breakfast Program Breakfasts *Served* to Students, Relative to SMI Nutrition Standards and Related Benchmarks, by School Size

		School Size			
	Standard/ Recommendation	Small (Less than 500 Students)	Medium (500–999 Students)	Large (1,000 or more Students)	All Schools
Average Percentage of 1989 REA/RDA					
Calories	25%	22.4$^{\alpha}$	21.1$^{\beta}$	19.5$^{\gamma}$	21.6
Protein	25%	49.9$^{\alpha}$	46.3$^{\beta}$	33.6$^{\gamma}$	46.8
Vitamin A[a]	25%	36.6$^{\alpha}$	32.2$^{\beta}$	23.6$^{\gamma}$	33.5
Vitamin C	25%	62.2	62.5	57.7	61.8
Calcium	25%	43.4$^{\alpha}$	40.1$^{\beta}$	29.1$^{\gamma}$	40.6
Iron	25%	41.6	40.0$^{\beta}$	31.9$^{\gamma}$	39.9
Average Percentage of Calories from:					
Total Fat	≤ 30%[b]	24.8	24.4$^{\beta}$	26.1$^{\gamma}$	24.8
Saturated Fat	< 10%	8.9$^{\alpha}$	8.4	8.8	8.7
Average Amount					
Cholesterol	< 75 mg[c,d]	49	45$^{\beta}$	55	48
Sodium	< 575 mg[c,d]	621	595$^{\beta}$	678$^{\gamma}$	618
Dietary Fiber (g/1,000 calories)	14[c]	6	6	6	6
Number of Schools		**322**	**287**	**193**	**802**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Estimates are based on a weighted nutrient analysis of menu data for one week. A weighted nutrient analysis takes into account the frequency with which each menu item is selected by students. The methodology is fully described in Appendix D of this report.

[a]In retinol equivalents (RE).
[b]The 2010 *Dietary Guidelines for Americans* recommendation for the percentage of calories from total fat is 25–35%.
[c]Based on the 2010 *Dietary Guidelines for Americans.*
[d]Benchmarks are one-quarter of suggested maximum daily intake.

RDA = Recommended Dietary Allowance; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between small and medium size schools is significantly different from zero at the .05 level.
[β]Difference between middle and large size schools is significantly different from zero at the .05 level.
[γ]Difference between small and large size schools is significantly different from zero at the .05 level.

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Table G.36. Proportion of Schools *Serving* School Breakfast Program Breakfasts that Satisfied Each of the SMI Nutrition Standards and Related Benchmarks and Different Combinations of the Standards and Benchmarks, by School Size

		School Size			
	Standard/ Recommendation	Small (Less than 500 Students)	Medium (500–999 Students)	Large (1,000 or more Students)	All Schools
SMI Nutrition Standards					
Calories	25% of 1989 REA	24.9$^{\alpha}$	14.6$^{\beta}$	5.4$^{\gamma}$~	19.0
Protein	25% of 1989 RDA	95.6	95.8$^{\beta}$~	84.5$^{\gamma}$	94.4
Vitamin A	25% of 1989 RDA[a]	82.3$^{\alpha}$	72.0$^{\beta}$	40.9$^{\gamma}$	73.9
Vitamin C	25% of 1989 RDA	93.7	95.2	91.9	94.1
Calcium	25% of 1989 RDA	95.8$^{\alpha}$	90.9$^{\beta}$	66.4$^{\gamma}$	90.7
Iron	25% of 1989 RDA	87.7	88.8$^{\beta}$	74.2$^{\gamma}$	86.6
Percentage of Calories from Total Fat	≤ 30%	86.1	87.3$^{\beta}$	74.3$^{\gamma}$	85.2
Percentage of Calories from Saturated Fat	< 10%	72.7	79.3	76.3	75.5
Other Nutrition Benchmarks					
Percentage of Calories from Total Fat	25% – 35%[b]	39.1	42.3	50.0	41.5
Cholesterol	< 75 mg[b,c]	84$^{\alpha}$	93$^{\beta}$	79	87
Sodium	< 575 mg[b,c]	45	49	42	46
Dietary Fiber (g/1,000 calories)	14[b]	<3	<3	<3	<3
Combinations of Standards					
All SMI Standards		14.3	8.5	<3$^{\gamma}$	10.9
SMI Standards for all RDA Nutrients[c]		72.5	66.1$^{\beta}$	31.0$^{\gamma}$	65.5
SMI Standards for all RDA Nutrients[d] and SMI Standard for Saturated Fat		56.5	53.5$^{\beta}$	24.5$^{\gamma}$	51.8
SMI Standards for all RDA Nutrients[d] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		12.0	11.8	9.5	11.7
Updated Standards for all RDA Nutrients[e] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		7.7	5.8	5.0~	6.7
Number of Schools		**322**	**287**	**193**	**802**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Table G.36 *(continued)*

Note: Estimates are based on a weighted nutrient analysis of menu data for one week. A weighted nutrient analysis takes into account the frequency with which each menu item is selected by students. One school did not provide adequate data on the number of servings selected for each menu item and was excluded from the weighted analysis. The methodology is fully described in Appendix D of this report.

[a]In retinol equivalents (RE).
[b]Based on the 2010 *Dietary Guidelines for Americans*.
[c]Benchmarks are one-quarter of suggested maximum daily intake.
[d]Includes protein, vitamin A, vitamin C, calcium and iron.
[e]Updated to reflect RDA values included in the Dietary Reference Intakes.

RDA = Recommended Dietary Allowance; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between small and medium size schools is significantly different from zero at the .05 level.
[β]Difference between middle and large size schools is significantly different from zero at the .05 level.
[γ]Difference between small and large size schools is significantly different from zero at the .05 level.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table G.37. Average Calorie and Nutrient Content of School Breakfast Program Breakfasts *Offered,* Relative to SMI Nutrition Standards and Related Benchmarks, by District Child Poverty Level

		District Child Poverty Level		
	Standard/ Recommendation	Low Poverty (Less than 30% of children in poverty	Higher Poverty (30% or more of children in poverty)	All Schools
Average Percentage of 1989 REA/RDA				
Calories	25%	23.1[α]	21.4	22.5
Protein	25%	50[α]	46.9	48.9
Vitamin A[a]	25%	39.4[α]	36.7	38.4
Vitamin C	25%	70.1	67.7	69.2
Calcium	25%	46.8[α]	44.2	45.9
Iron	25%	46.0	42.1	44.6
Average Percentage of Calories from:				
Total Fat	≤ 30%[b]	22.8	22.4	22.6
Saturated Fat	< 10%	8.4[α]	7.9	8.2
Average Amount				
Cholesterol	< 75 mg[c,d]	44[α]	39	42
Sodium	< 575 mg[c,d]	590	571	583
Dietary Fiber (g/1,000 calories)	14[c]	6	7	6
Number of Schools		**526**	**277**	**803**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).
[b]The 2010 *Dietary Guidelines for Americans* recommendation for the percentage of calories from total fat is 25–35%.
[c]Based on the 2010 *Dietary Guidelines for Americans*.
[d]Benchmarks are one-quarter of suggested maximum daily intake.

RDA = Recommended Dietary Allowance; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between low and higher district child poverty level is significantly different from zero at the .05 level.

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Table G.38. Proportion of Schools *Offering* School Breakfast Program Breakfasts that Satisfied Each of the SMI Nutrition Standards and Related Benchmarks and Different Combinations of the Standards and Benchmarks, by District Child Poverty Level

		District Child Poverty Level		
	Standard/ Recommendation	Low Poverty (Less than 30% of children in poverty	Higher Poverty (30% or more of children in poverty)	All Schools
SMI Nutrition Standards				
Calories	25% of 1989 REA	23.2[α]	15.0	20.2
Protein	25% of 1989 RDA	>97	>97	>97
Vitamin A	25% of 1989 RDA[a]	93.9	89.5	92.3
Vitamin C	25% of 1989 RDA	96.9	>97	97.0
Calcium	25% of 1989 RDA	>97	>97	>97
Iron	25% of 1989 RDA	92.2	90.2	91.5
Percentage of Calories from Total Fat	≤ 30%	92.5	94.5	93.2
Percentage of Calories from Saturated Fat	< 10%	80.3	83.1	81.3
Other Nutrition Benchmarks				
Percentage of Calories from Total Fat	25% – 35%[b]	30.1	28.3	29.4
Cholesterol	< 75 mg[b,c]	88[α]	96~	91
Sodium	< 575 mg[b,c]	64	58	62
Dietary Fiber (g/1,000 calories)	14[b]	<3	0	<3
Combinations of Standards				
All SMI Standards		15.8	12.8	14.7
SMI Standards for all RDA Nutrients[c]		85.0	83.9	84.6
SMI Standards for all RDA Nutrients[d] and SMI Standard for Saturated Fat		69.5	72.5	70.6
SMI Standards for all RDA Nutrients[d] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		15.1	11.6	13.9
Updated Standards for all RDA Nutrients[e] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		11.3[α]	4.2	8.7
Number of Schools		**526**	**277**	**803**

Table G.38 *(continued)*

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).
[b]Based on the 2010 *Dietary Guidelines for Americans*.
[c]Benchmarks are one-quarter of suggested maximum daily intake.
[d]Includes protein, vitamin A, vitamin C, calcium and iron.
[e]Updated to reflect RDA values included in the Dietary Reference Intakes.

RDA = Recommended Dietary Allowance; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between low and higher district child poverty level is significantly different from zero at the .05 level.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table G.39. Average Calorie and Nutrient Content of School Breakfast Program Breakfasts *Served* to Students, Relative to SMI Nutrition Standards and Related Benchmarks, by District Child Poverty Level

		District Child Poverty Level		
	Standard/ Recommendation	Low Poverty (Less than 30% of children in poverty	Higher Poverty (30% or more of children in poverty)	All Schools
Average Percentage of 1989 REA/RDA				
Calories	25%	21.5	21.8	21.6
Protein	25%	46.5	47.2	46.8
Vitamin A[a]	25%	33.6	33.5	33.5
Vitamin C	25%	60.4	64.2	61.8
Calcium	25%	40.6	40.6	40.6
Iron	25%	39.6	40.6	39.9
Average Percentage of Calories from:				
Total Fat	≤ 30%[b]	24.7	24.9	24.8
Saturated Fat	< 10%	8.8	8.6	8.7
Average Amount				
Cholesterol	< 75 mg[c,d]	48	48	48
Sodium	< 575 mg[c,d]	601[α]	649	618
Dietary Fiber (g/1,000 calories)	14[c]	6	6	6
Number of Schools		**525**	**277**	**802**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Estimates are based on a weighted nutrient analysis of menu data for one week. A weighted nutrient analysis takes into account the frequency with which each menu item is selected by students. The methodology is fully described in Appendix D of this report.

[a]In retinol equivalents (RE).
[b]The 2010 *Dietary Guidelines for Americans* recommendation for the percentage of calories from total fat is 25–35%.
[c]Based on the 2010 *Dietary Guidelines for Americans.*
[d]Benchmarks are one-quarter of suggested maximum daily intake.

RDA = Recommended Dietary Allowance; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between low and higher district child poverty level is significantly different from zero at the .05 level.

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Table G.40. Proportion of Schools *Serving* School Breakfast Program Breakfasts that Satisfied Each of the SMI Nutrition Standards and Related Benchmarks and Different Combinations of the Standards and Benchmarks, by District Child Poverty Level

		District Child Poverty Level		
	Standard/ Recommendation	Low Poverty (Less than 30% of children in poverty	Higher Poverty (30% or more of children in poverty)	All Schools
SMI Nutrition Standards				
Calories	25% of 1989 REA	19.0	19.0	19.0
Protein	25% of 1989 RDA	94.5	94.3	94.4
Vitamin A	25% of 1989 RDA[a]	75.3	71.5	73.9
Vitamin C	25% of 1989 RDA	93.5	95.1	94.1
Calcium	25% of 1989 RDA	91.3	89.7	90.7
Iron	25% of 1989 RDA	86.1	87.4	86.6
Percentage of Calories from Total Fat	≤ 30%	85.2	85.1	85.2
Percentage of Calories from Saturated Fat	< 10%	73.8	78.5	75.5
Other Nutrition Benchmarks				
Percentage of Calories from Total Fat	25% – 35%[b]	42.5	39.8	41.5
Cholesterol	< 75 mg[b,c]	86	88	87
Sodium	< 575 mg[b,c]	51[α]	37	46
Dietary Fiber (g/1,000 calories)	14[b]	<3	0	<3
Combinations of Standards				
All SMI Standards		9.5	13.3	10.9
SMI Standards for all RDA Nutrients[c]		65.9	65.4	65.5
SMI Standards for all RDA Nutrients[d] and SMI Standard for Saturated Fat		50.4	54.3	51.8
SMI Standards for all RDA Nutrients[d] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		12.5	10.3	11.7
Updated Standards for all RDA Nutrients[e] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		7.1	6.0	6.7
Number of Schools		**525**	**277**	**802**

Table G.40 *(continued)*

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Estimates are based on a weighted nutrient analysis of menu data for one week. A weighted nutrient analysis takes into account the frequency with which each menu item is selected by students. One school did not provide adequate data on the number of servings selected for each menu item and was excluded from the weighted analysis. The methodology is fully described in Appendix D of this report.

[a]In retinol equivalents (RE).
[b]Based on the 2010 *Dietary Guidelines for Americans*.
[c]Benchmarks are one-quarter of suggested maximum daily intake.
[d]Includes protein, vitamin A, vitamin C, calcium and iron.
[e]Updated to reflect RDA values included in the Dietary Reference Intakes.

RDA = Recommended Dietary Allowance; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between low and higher district child poverty level is significantly different from zero at the .05 level.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table G.41. Average Calorie and Nutrient Content of School Breakfast Program Breakfasts *Offered,* Relative to SMI Nutrition Standards and Related Benchmarks, by Community Type

		Community Type			
	Standard/ Recommendation	Urban	Suburban	Rural	All Schools
Average Percentage of 1989 REA/RDA					
Calories	25%	23.1	22.4	21.9	22.5
Protein	25%	50.9	48.0	48.3	48.9
Vitamin A[a]	25%	38.5	38.9	37.7	38.4
Vitamin C	25%	69.6	69.3	68.7	69.2
Calcium	25%	47.1	45.8	44.8[γ]	45.9
Iron	25%	46.3	45.5	41.5	44.6
Average Percentage of Calories from:					
Total Fat	≤ 30%[b]	21.9	22.4[β]	23.8[γ]	22.6
Saturated Fat	< 10%	7.8	8.3	8.6[γ]	8.2
Average Amount					
Cholesterol	< 75 mg[c,d]	44	41	43	42
Sodium	< 575 mg[c,d]	606	566	586	583
Dietary Fiber (g/1,000 calories)	14[c]	7[α]	6	6[γ]	6
Number of Schools		**264**	**351**	**188**	**803**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).
[b]The 2010 *Dietary Guidelines for Americans* recommendation for the percentage of calories from total fat is 25–35%.
[c]Based on the 2010 *Dietary Guidelines for Americans*.
[d]Benchmarks are one-quarter of suggested maximum daily intake.

RDA = Recommended Dietary Allowance; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between urban and suburban community types is significantly different from zero at the .05 level.
[β]Difference between suburban and rural community types is significantly different from zero at the .05 level.
[γ]Difference between urban and rural community types is significantly different from zero at the .05 level.

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Table G.42. Proportion of Schools *Offering* School Breakfast Program Breakfasts that Satisfied Each of the SMI Nutrition Standards and Related Benchmarks and Different Combinations of the Standards and Benchmarks, by Community Type

		Community Type			
	Standard/ Recommendation	Urban	Suburban	Rural	All Schools
SMI Nutrition Standards					
Calories	25% of 1989 REA	25.8	19.4	15.7	20.2
Protein	25% of 1989 RDA	>97	>97	>97	>97
Vitamin A	25% of 1989 RDA[a]	94.6	92.6	89.6	92.3
Vitamin C	25% of 1989 RDA	96.7~	>97	96.5~	97.0
Calcium	25% of 1989 RDA	>97	>97	>97	>97
Iron	25% of 1989 RDA	95.7~	91.8	86.6[γ]	91.5
Percentage of Calories from Total Fat	≤ 30%	95.5~	92.7	91.7	93.2
Percentage of Calories from Saturated Fat	< 10%	83.1	82.2	78.0	81.3
Other Nutrition Benchmarks					
Percentage of Calories from Total Fat	25% – 35%[b]	29.7	24.7[β]	36.5	29.4
Cholesterol	< 75 mg[b,c]	89	93	91	91
Sodium	< 575 mg[b,c]	53[α]	69	60	62
Dietary Fiber (g/1,000 calories)	14[b]	<3	<3	<3	<3
Combinations of Standards					
All SMI Standards		20.7[α]	12.0	12.7	14.7
SMI Standards for all RDA Nutrients[c]		88.6	84.6	80.5	84.6
SMI Standards for all RDA Nutrients[d] and SMI Standard for Saturated Fat		73.9	71.0	66.5	70.6
SMI Standards for all RDA Nutrients[d] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		15.9	11.9	14.8	13.9
Updated Standards for all RDA Nutrients[e] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		11.5	6.9	8.6	8.7
Number of Schools		**264**	**351**	**188**	**803**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).
[b]Based on the 2010 *Dietary Guidelines for Americans*.
[c]Benchmarks are one-quarter of suggested maximum daily intake.

Table G.42 *(continued)*

[d]Includes protein, vitamin A, vitamin C, calcium and iron.
[e]Updated to reflect RDA values included in the Dietary Reference Intakes.

RDA = Recommended Dietary Allowance; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between urban and suburban community types is significantly different from zero at the .05 level.
[β]Difference between suburban and rural community types is significantly different from zero at the .05 level.
[γ]Difference between urban and rural community types is significantly different from zero at the .05 level.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table G.43. Average Calorie and Nutrient Content of School Breakfast Program Breakfasts *Served* to Students, Relative to SMI Nutrition Standards and Related Benchmarks, by Community Type

		Community Type			
	Standard/ Recommendation	Urban	Suburban	Rural	All Schools
Average Percentage of 1989 REA/RDA					
Calories	25%	20.6	21.2$^{\beta}$	23.2$^{\gamma}$	21.6
Protein	25%	45.1	45.4$^{\beta}$	50.7$^{\gamma}$	46.8
Vitamin A[a]	25%	32.1	33.2	35.5$^{\gamma}$	33.5
Vitamin C	25%	63.8	59.9	62.6	61.8
Calcium	25%	39.3	39.8$^{\beta}$	43.2$^{\gamma}$	40.6
Iron	25%	40.1	39.8	40.0	39.9
Average Percentage of Calories from:					
Total Fat	≤ 30%[b]	23.6	24.6$^{\beta}$	26.2$^{\gamma}$	24.8
Saturated Fat	< 10%	8.3	8.7	9.2$^{\gamma}$	8.7
Average Amount					
Cholesterol	< 75 mg[c,d]	45	45$^{\beta}$	56$^{\gamma}$	48
Sodium	< 575 mg[c,d]	576	602$^{\beta}$	687$^{\gamma}$	618
Dietary Fiber (g/1,000 calories)	14[c]	7$^{\alpha}$	6	6$^{\gamma}$	6
Number of Schools		**264**	**351**	**187**	**802**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Estimates are based on a weighted nutrient analysis of menu data for one week. A weighted nutrient analysis takes into account the frequency with which each menu item is selected by students. The methodology is fully described in Appendix D of this report.

[a]In retinol equivalents (RE).
[b]The 2010 *Dietary Guidelines for Americans* recommendation for the percentage of calories from total fat is 25–35%.
[c]Based on the 2010 *Dietary Guidelines for Americans.*
[d]Benchmarks are one-quarter of suggested maximum daily intake.

RDA = Recommended Dietary Allowance; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between urban and suburban community types is significantly different from zero at the .05 level.
[β]Difference between suburban and rural community types is significantly different from zero at the .05 level.
[γ]Difference between urban and rural community types is significantly different from zero at the .05 level.

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Table G.44. Proportion of Schools *Serving* School Breakfast Program Breakfasts that Satisfied Each of the SMI Nutrition Standards and Related Benchmarks and Different Combinations of the Standards and Benchmarks, by Community Type

		Community Type			
	Standard/ Recommendation	Urban	Suburban	Rural	All Schools
SMI Nutrition Standards					
Calories	25% of 1989 REA	14.1	17.3	26.8[γ]	19.0
Protein	25% of 1989 RDA	95.2~	93.2	95.6~	94.4
Vitamin A	25% of 1989 RDA[a]	72.1	73.3	76.8	73.9
Vitamin C	25% of 1989 RDA	95.1~	94.6	92.2	94.1
Calcium	25% of 1989 RDA	89.7	89.7	93.3~	90.7
Iron	25% of 1989 RDA	83.8	88.3	86.8	86.6
Percentage of Calories from Total Fat	≤ 30%	88.0	85.3	82.1	85.2
Percentage of Calories from Saturated Fat	< 10%	79.9	73.2	74.4	75.5
Other Nutrition Benchmarks					
Percentage of Calories from Total Fat	25% – 35%[b]	37.7	40.5	47.0	41.5
Cholesterol	< 75 mg[b,c]	91	89	79[γ]	87
Sodium	< 575 mg[b,c]	54	54[β]	27[γ]	46
Dietary Fiber (g/1,000 calories)	14[b]	<3	<3	<3	<3
Combinations of Standards					
All SMI Standards		7.9	9.3	16.3	10.9
SMI Standards for all RDA Nutrients[c]		63.2	66.7	66.1	65.5
SMI Standards for all RDA Nutrients[d] and SMI Standard for Saturated Fat		51.7	51.2	52.9	51.8
SMI Standards for all RDA Nutrients[d] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		10.7	11.0	13.8	11.7
Updated Standards for all RDA Nutrients[e] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		<3[α]	6.8	10.9[γ]	6.7
Number of Schools		**264**	**351**	**187**	**802**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Table G.44 *(continued)*

Note: Estimates are based on a weighted nutrient analysis of menu data for one week. A weighted nutrient analysis takes into account the frequency with which each menu item is selected by students. One school did not provide adequate data on the number of servings selected for each menu item and was excluded from the weighted analysis. The methodology is fully described in Appendix D of this report.

[a]In retinol equivalents (RE).
[b]Based on the 2010 *Dietary Guidelines for Americans*.
[c]Benchmarks are one-quarter of suggested maximum daily intake.
[d]Includes protein, vitamin A, vitamin C, calcium and iron.
[e]Updated to reflect RDA values included in the Dietary Reference Intakes.

RDA = Recommended Dietary Allowance; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between urban and suburban community types is significantly different from zero at the .05 level.
[β]Difference between suburban and rural community types is significantly different from zero at the .05 level.
[γ]Difference between urban and rural community types is significantly different from zero at the .05 level.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table G.45. Average Calorie and Nutrient Content of School Breakfast Program Breakfasts *Offered,* Relative to SMI Nutrition Standards and Related Benchmarks

	Standard/ Recommendation	Elementary School Students	Middle School Students	High School Students	All Students
Average Percentage of 1989 REA/RDA					
Calories	25%	23.4$^{\alpha}$	22.3$^{\beta}$	21.0$^{\gamma}$	22.4
Protein	25%	57.0$^{\alpha}$	39.3$^{\beta}$	35.7$^{\gamma}$	46.3
Vitamin A[a]	25%	42.5$^{\alpha}$	31.2	31.1$^{\gamma}$	36.4
Vitamin C	25%	71.8	70.7	65.6	69.5
Calcium	25%	51.7$^{\alpha}$	37.8	36.7$^{\gamma}$	43.9
Iron	25%	48.2$^{\alpha}$	39.0	39.3$^{\gamma}$	43.3
Average Percentage of Calories from:					
Total Fat	≤ 30%[b]	21.9$^{\alpha}$	23.0	23.3$^{\gamma}$	22.6
Saturated Fat	< 10%	8.0	8.2	8.3	8.1
Average Amount					
Cholesterol	< 75 mg[c,d]	41$^{\alpha}$	47	49$^{\gamma}$	45
Sodium	< 575 mg[c,d]	552$^{\alpha}$	653	667$^{\gamma}$	611
Dietary Fiber (g/1,000 calories)	14[c]	7	7	7	7
Number of Schools		**282**	**264**	**257**	**803**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).
[b]The 2010 *Dietary Guidelines for Americans* recommendation for the percentage of calories from total fat is 25–35%.
[c]Based on the 2010 *Dietary Guidelines for Americans*.
[d]Benchmarks are one-quarter of suggested maximum daily intake.

RDA = Recommended Dietary Allowance; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between elementary and middle school students is significantly different from zero at the .05 level.
[β]Difference between middle and high school students is significantly different from zero at the .05 level.
[γ]Difference between elementary and high school students is significantly different from zero at the .05 level.

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Table G.46. Proportion of Schools *Offering* School Breakfast Program Breakfasts that Satisfied Each of the SMI Nutrition Standards and Related Benchmarks and Different Combinations of the Standards and Benchmarks

	Standard/ Recommendation	Elementary School Students	Middle School Students	High School Students	All Students
SMI Nutrition Standards					
Calories	25% of 1989 REA	25.6	19.1	13.4[γ]	20.2
Protein	25% of 1989 RDA	>97	>97[β]	>97[γ]	>97
Vitamin A	25% of 1989 RDA[a]	>97[α]	84.6	82.3[γ]	90.5
Vitamin C	25% of 1989 RDA	>97	>97	>97	97.5
Calcium	25% of 1989 RDA	>97	>97	96.1~	>97
Iron	25% of 1989 RDA	93.8	91.0	90.3	92.1
Percentage of Calories from Total Fat	≤ 30%	95.6~	93.8	91.9	94.0
Percentage of Calories from Saturated Fat	< 10%	81.9	87.0	80.8	82.5
Other Nutrition Benchmarks					
Percentage of Calories from Total Fat	25% – 35%[b]	23.4[α]	35.9	36.2[γ]	30.2
Cholesterol	< 75 mg[b,c]	93	87	84[γ]	89
Sodium	< 575 mg[b,c]	68[α]	47	48[γ]	57
Dietary Fiber (g/1,000 calories)	14[b]	<3	<3	<3	<3
Combinations of Standards					
All SMI Standards		21.0	13.0	7.1[γ]	14.7
SMI Standards for all RDA Nutrients[c]		91.0[α]	78.4	78.1[γ]	84.1
SMI Standards for all RDA Nutrients[d] and SMI Standard for Saturated Fat		76.1	68.9	63.9[γ]	70.5
SMI Standards for all RDA Nutrients[d] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		12.5[α]	20.5	16.3	15.4
Updated Standards for all RDA Nutrients[e] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		8.8[α]	15.5[β]	5.6	9.0
Number of Schools		**282**	**264**	**257**	**803**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).
[b]Based on the 2010 *Dietary Guidelines for Americans*.
[c]Benchmarks are one-quarter of suggested maximum daily intake.

Table G.46 *(continued)*

[d]Includes protein, vitamin A, vitamin C, calcium and iron.
[e]Updated to reflect RDA values included in the Dietary Reference Intakes.

RDA = Recommended Dietary Allowance; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between elementary and middle school students is significantly different from zero at the .05 level.
[β]Difference between middle and high school students is significantly different from zero at the .05 level.
[γ]Difference between elementary and high school students is significantly different from zero at the .05 level.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table G.47. Average Calorie and Nutrient Content of School Breakfast Program Breakfasts *Served,* Relative to SMI Nutrition Standards and Related Benchmarks

	Standard/ Recommendation	Elementary School Students	Middle School Students	High School Students	All Students
Average Percentage of 1989 REA/RDA					
Calories	25%	22.0$^{\alpha}$	20.6$^{\beta}$	19.1$^{\gamma}$	20.7
Protein	25%	53.5$^{\alpha}$	36.5$^{\beta}$	32.2$^{\gamma}$	42.9
Vitamin A[a]	25%	37.2$^{\alpha}$	25.2$^{\beta}$	23.4$^{\gamma}$	30.1
Vitamin C	25%	62.6	62.4$^{\beta}$	55.7$^{\gamma}$	60.2
Calcium	25%	45.7$^{\alpha}$	31.5$^{\beta}$	28.8$^{\gamma}$	37.1
Iron	25%	43.3$^{\alpha}$	32.3	32.3$^{\gamma}$	37.4
Average Percentage of Calories from:					
Total Fat	≤ 30%[b]	23.6$^{\alpha}$	25.9	26.3$^{\gamma}$	25.0
Saturated Fat	< 10%	8.4$^{\alpha}$	8.8	9.0$^{\gamma}$	8.7
Average Amount					
Cholesterol	< 75 mg[c,d]	43$^{\alpha}$	52	54$^{\gamma}$	49
Sodium	< 575 mg[c,d]	563$^{\alpha}$	668	679$^{\gamma}$	623
Dietary Fiber (g/1,000 calories)	14[c]	6$^{\alpha}$	6	6	6
Number of Schools		**282**	**263**	**257**	**802**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).
[b]The 2010 *Dietary Guidelines for Americans* recommendation for the percentage of calories from total fat is 25–35%.
[c]Based on the 2010 *Dietary Guidelines for Americans*.
[d]Benchmarks are one-quarter of suggested maximum daily intake.

RDA = Recommended Dietary Allowance; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between elementary and middle school students is significantly different from zero at the .05 level.
[β]Difference between middle and high school students is significantly different from zero at the .05 level.
[γ]Difference between elementary and high school students is significantly different from zero at the .05 level.

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Table G.48. Proportion of Schools *Serving* School Breakfast Program Breakfasts that Satisfied Each of the SMI Nutrition Standards and Related Benchmarks and Different Combinations of the Standards and Benchmarks

	Standard/ Recommendation	Elementary School Students	Middle School Students	High School Students	All Students
SMI Nutrition Standards					
Calories	25% of 1989 REA	21.7$^{\alpha}$	12.2$^{\beta}$	5.1$^{\gamma}$	14.2
Protein	25% of 1989 RDA	>97$^{\alpha}$	93.3$^{\beta}$	79.2$^{\gamma}$	91.2
Vitamin A	25% of 1989 RDA[a]	89.2$^{\alpha}$	42.4	38.0$^{\gamma}$	62.5
Vitamin C	25% of 1989 RDA	95.3	92.3	93.5	94.1
Calcium	25% of 1989 RDA	>97$^{\alpha}$	78.2	67.2$^{\gamma}$	83.8
Iron	25% of 1989 RDA	92.9$^{\alpha}$	73.4	75.9$^{\gamma}$	83.2
Percentage of Calories from Total Fat	≤ 30%	89.2$^{\alpha}$	79.8	76.5$^{\gamma}$	83.0
Percentage of Calories from Saturated Fat	< 10%	79.9	76.6	72.8	76.8
Other Nutrition Benchmarks					
Percentage of Calories from Total Fat	25% – 35%[b]	32.8$^{\alpha}$	53.3	53.4$^{\gamma}$	43.9
Cholesterol	< 75 mg[b,c]	93$^{\alpha}$	82	81$^{\gamma}$	87
Sodium	< 575 mg[b,c]	54$^{\alpha}$	37	44	47
Dietary Fiber (g/1,000 calories)	14[b]	<3	<3	<3	<3
Combinations of Standards					
All SMI Standards		14.1$^{\alpha}$	5.7$^{\beta}$	<3$^{\gamma}$	8.1
SMI Standards for all RDA Nutrients[c]		82.1$^{\alpha}$	35.9	28.0$^{\gamma}$	54.5
SMI Standards for all RDA Nutrients[d] and SMI Standard for Saturated Fat		66.8$^{\alpha}$	29.1$^{\beta}$	19.6$^{\gamma}$	43.3
SMI Standards for all RDA Nutrients[d] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		12.4	11.1	7.6	10.5
Updated Standards for all RDA Nutrients[e] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		6.1	9.6$^{\beta}$	<3	5.7
Number of Schools		**282**	**263**	**257**	**802**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).
[b]Based on the 2010 *Dietary Guidelines for Americans*.
[c]Benchmarks are one-quarter of suggested maximum daily intake.

Table G.48 *(continued)*

[d]Includes protein, vitamin A, vitamin C, calcium and iron.
[e]Updated to reflect RDA values included in the Dietary Reference Intakes.

RDA = Recommended Dietary Allowance; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

[α]Difference between elementary and middle school students is significantly different from zero at the .05 level.
[β]Difference between middle and high school students is significantly different from zero at the .05 level.
[γ]Difference between elementary and high school students is significantly different from zero at the .05 level.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

APPENDIX H

SUPPLEMENTAL TABLES FOR CHAPTER 8

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TABLES

Appendix H presents the average amounts of USDA Food Pattern food groups in NSLP lunches and SBP breakfasts *offered* and *served* in SY 2009–2010 and compares these average amounts to USDA Food Pattern recommendations for school-age children. It is important to note that these comparisons are unlike most of the comparisons shown in the main chapters of this report, where meal–specific averages are compared, in most cases, to meal–specific standards. In this appendix (and the associated Chapter 8), meal–specific findings are compared to Food Pattern recommendations for average daily (24-hour) intakes.

As described in Chapter 8, USDA Food Pattern recommendations for individuals depend on calorie requirements, which are determined by age, gender, and activity level. To assess the potential contribution of school meals to Food Pattern recommendations, we used Food Patterns for 1,800 calories, 2,000 calories, and 2,400 calories as reference standards for elementary schools, middle schools, and high schools, respectively. These are the calorie levels used by the IOM in developing recommendations for revised nutrition standards for school meals (IOM 2010). Food Pattern recommendations for these three calorie levels are summarized in Chapter 8, Table 8.1.

Appendix Tables H.1–H.12 provide comparisons to other calorie levels that may be applicable to specific subgroups of students in each type of school. Additional comparisons include 1,200, 1,400, and 1,600 calorie Food Patterns for elementary schools; 1,600 and 1,800 calorie Food Patterns for middle schools; and 1,800, 2,000, and 2,200 calorie Food Patterns for high schools. In addition, Appendix Tables H.13–H.16 present data on concentrations of Food Pattern food groups per 1,000 calories.

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Table H.1. Average Amounts of Food Groups in National School Lunch Program Lunches *Offered* to Students in Elementary Schools, Relative to Reference USDA Food Patterns

		Calorie Levels[a]							
		1,200		1,400		1,600		1,800	
	Average Amount	Recommended Amount[b]	Percent of Recommendation[c]	Recommended Amount	Percent of Recommendation	Recommended Amount	Percent of Recommendation	Recommended Amount	Percent of Recommendation
Fruits (cup equiv)	0.75	1	75	1.5	50	1.5	50	1.5	50
Vegetables (cup equiv)	0.72	1.5	48	1.5	48	2	36	2.5	29
Dark green (cup/wk)[d]	0.19	1	19	1	19	1.5	13	1.5	13
Red and orange (cup/wk)[d]	1.06	3	35	3	35	4	27	5.5	19
Legumes (cup/wk)[d,e]	0.15	0.5	30	0.5	30	1	15	1.5	10
Starchy (cup/wk)[d]	0.92	3.5	26	3.5	26	4	23	5	18
Other (cup/wk)[d]	1.21	2.5	48	2.5	48	3.5	35	4	30
Grains (oz equiv)	2.36	4	59	5	47	5	47	6	39
Whole grains (oz equiv)	0.28	2	14	2.5	11	3	9	3	9
Protein Foods (oz equiv)[f]	1.49	3	50	4	37	5	30	5	30
Dairy (cup equiv)	1.38	2.5	55	2.5	55	3	46	3	46
Oils (tsp)	2.01	4	50	4	50	5	40	5	40
Calories from Solid Fats and Added Sugars	184	120	154	120	154	120	154	160	115
Calories from solid fats	113	n.a		n.a				n.a	
Calories from added sugars	71	n.a		n.a				n.a	
Number of Schools					**318**				

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

n.a. = Not applicable.

[a] USDA Food Pattern recommendations assign individuals to a calorie level based on their sex, age, and activity level. Most of the children that typically attend elementary schools would require between 1,200 and 1,800 calories.

[b]Recommended daily amount of food from each group within a calorie level with the exception of the vegetable subgroups. Vegetable subgroups are recommended amounts per week.

[c]Percent of recommended daily amount from each group within calorie level.

[d]Includes only schools that provided menu information for 5 days

[e]Includes legumes offered as a vegetable or included in combination entrees.

[f]Includes legumes offered as a meat alternate.

Table H.2. Average Amounts of Food Groups in National School Lunch Program Lunches *Offered* to Students in Middle Schools, Relative to Reference USDA Food Patterns

		Calorie Levels[a]					
		1,600		1,800		2,000	
	Average Amount	Recommended Amount[b]	Percent of Recommendation[c]	Recommended Amount	Percent of Recommendation	Recommended Amount	Percent of Recommendation
Fruits (cup equiv)	0.85	1.5	57	1.5	57	2	42
Vegetables (cup equiv)	0.82	2	41	2.5	33	2.5	33
Dark green (cup/wk)[d]	0.21	1.5	14	1.5	14	1.5	14
Red and Orange (cup/wk)[d]	1.12	4	28	5.5	20	5.5	20
Legumes (cup/wk)[d,e]	0.15	1	15	1.5	10	1.5	10
Starchy (cup/wk)[d]	1.13	4	28	5	23	5	23
Other (cup/wk)[d]	1.41	3.5	40	4	35	4	35
Grains (oz equiv)	2.68	5	54	6	45	6	45
Whole grains (oz equiv)	0.29	3	10	3	10	3	10
Protein Foods (oz equiv)[f]	1.57	5	31	5	31	5.5	29
Dairy (cups)	1.42	3	47	3	47	3	47
Oils (tsp)	2.25	5	45	5	45	6	37
Calories from Solid Fats and Added Sugars	194	120	161	160	121	260	74
Calories from solid fats	123	n.a		n.a		n.a	
Calories from added sugars	71	n.a		n.a		n.a	
Number of Schools				**287**			

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

n.a. = Not applicable.

[a] USDA Food Pattern recommendations assign individuals to a calorie level based on their sex, age, and activity level. Most of the children that typically attend middle schools would require between 1,600 and 2,000 calories.

[b]Recommended daily amount of food from each group within a calorie level with the exception of the vegetable subgroups. Vegetable subgroups are recommended amounts per week.

[c]Percent of recommended daily amount from each group within calorie level.

[d]Includes only schools that provided menu information for 5 days.

[e]Includes legumes offered as a vegetable or included in combination entrees.

[f]Includes legumes offered as a meat alternate.

Table H.3. Average Amounts of Food Groups in National School Lunch Program Lunches *Offered* to Students in High Schools, Relative to Reference USDA Food Patterns

		Calorie Levels[a]							
		1,800		2,000		2,200		2,400	
	Average Amount	Recommended Amount[b]	Percent of Recommendation[c]	Recommended Amount	Percent of Recommendation	Recommended Amount	Percent of Recommendation	Recommended Amount	Percent of Recommendation
Fruits (cup equiv)	0.92	1.5	61	2	46	2	46	2	46
Vegetables (cup equiv)	0.89	2.5	35	2.5	35	3	30	3	30
Dark green (cup/wk)[d]	0.25	1.5	17	1.5	17	2	13	2	13
Red and orange (cup/wk)[d]	1.20	5.5	22	5.5	22	6	20	6	20
Legumes (cup/wk)[d,e]	0.15	1.5	10	1.5	10	2	8	2	8
Starchy (cup/wk)[d]	1.28	5	26	5	26	6	21	6	21
Other (cup/wk)[d]	1.58	4	40	4	40	5	32	5	32
Grains (oz equiv)	2.89	6	48	6	48	7	41	8	36
Whole grains (oz equiv)	0.29	3	10	3	10	3.5	8	4	7
Protein Foods (oz equiv)[f]	1.66	5	33	5.5	30	6	28	6.5	26
Dairy (cup equiv)	1.44	3	48	3	48	3	48	3	48
Oils (tsp)	2.58	5	52	6	43	6	43	7	37
Calories from Solid Fats and Added Sugars	206	160	129	260	79	270	76	330	63
Calories from solid fats	130	n.a		n.a		n.a		n.a	
Calories from added sugars	76	n.a		n.a		n.a		n.a	
Number of Schools				**279**					

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

n.a. = Not applicable.

[a] USDA Food Pattern recommendations assign individuals to a calorie level based on their sex, age, and activity level. Most of the children that typically attend high schools would require between 1,800 and 2,400 calories.

[b] Recommended daily amount of food from each group within a calorie level with the exception of the vegetable subgroups. Vegetable subgroups are recommended amounts per week.

[c] Percent of recommended daily amount from each group within calorie level.

[d] Includes only schools that provided menu information for 5 days.

[e] Includes legumes offered as a vegetable or included in combination entrees.

[f] Includes legumes offered as a meat alternate.

Table H.4. Average Amounts of Food Groups in National School Lunch Program Lunches *Served* to Students in Elementary Schools, Relative to Reference USDA Food Patterns

		Calorie Levels[a]							
		1,200		1,400		1,600		1,800	
	Average Amount	Recommended Amount[b]	Percent of Recommendation[c]	Recommended Amount	Percent of Recommendation	Recommended Amount	Percent of Recommendation	Recommended Amount	Percent of Recommendation
Fruits (cup equiv)	0.48	1	48	1.5	32	1.5	32	1.5	32
Vegetables (cup equiv)	0.58	1.5	39	1.5	39	2	29	2.5	23
Dark green (cup/wk)[d]	0.11	1	11	1	11	1.5	7	1.5	7
Red and orange (cup/wk)[d]	0.88	3	29	3	29	4	22	5.5	16
Legumes (cup/wk)[d,e]	0.12	0.5	24	0.5	24	1	12	1.5	8
Starchy (cup/wk)[d]	0.99	3.5	28	3.5	28	4	25	5	20
Other (cup/wk)[d]	0.76	2.5	30	2.5	30	3.5	22	4	19
Grains (oz equiv)	2.24	4	56	5	45	5	45	6	37
Whole grains (oz equiv)	0.25	2	12	2.5	10	3	8	3	8
Protein Foods (oz equiv)[f]	1.34	3	45	4	34	5	27	5	27
Dairy (cup equiv)	1.30	2.5	52	2.5	52	3	43	3	43
Oils (tsp)	1.60	4	40	4	40	5	32	5	32
Calories from Solid Fats and Added Sugars	184	120	153	120	153	120	153	160	115
Calories from solid fats	111	n.a		n.a		n.a		n.a	
Calories from added sugars	73	n.a		n.a		n.a		n.a	
Number of Schools				**317**					

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Estimates are based on a weighted nutrient analysis of menu data for one week. A weighted nutrient analysis takes into account the frequency with which each menu item is selected by students. One school did not provide adequate data on the number of servings selected for each menu item and was excluded from the weighted analysis. The methodology is fully described in Appendix D of this report.

n.a. = Not applicable.

[a] USDA Food Pattern recommendations assign individuals to a calorie level based on their sex, age, and activity level. Most of the children that typically attend elementary schools would require between 1,200 and 1,800 calories.

[b] Recommended daily amount of food from each group within a calorie level with the exception of the vegetable subgroups. Vegetable subgroups are recommended amounts per week.

[c] Percent of recommended daily amount from each group within calorie level.

[d] Includes only schools that provided menu information for 5 days.

[e] Includes legumes offered as a vegetable or included in combination entrees.

[f] Includes legumes offered as a meat alternate.

Table H.5. Average Amounts of Food Groups in National School Lunch Program Lunches *Served* to Students in Middle Schools, Relative to Reference USDA Food Patterns

		Calorie Levels[a]					
		1,600		1,800		2,000	
	Average Amount	Recommended Amount[b]	Percent of Recommendation[c]	Recommended Amount	Percent of Recommendation	Recommended Amount	Percent of Recommendation
Fruits (cup equiv)	0.45	1.5	30	1.5	30	2	22
Vegetables (cup equiv)	0.61	2	30	2.5	24	2.5	24
Dark green (cup/wk)[d]	0.12	1.5	8	1.5	8	1.5	8
Red and Orange (cup/wk)[d]	0.88	4	22	5.5	16	5.5	16
Legumes (cup/wk)[d,e]	0.10	1	10	1.5	7	1.5	7
Starchy (cup/wk)[d]	1.11	4	28	5	22	5	22
Other (cup/wk)[d]	0.80	3.5	23	4	20	4	20
Grains (oz equiv)	2.48	5	50	6	41	6	41
Whole grains (oz equiv)	0.25	3	8	3	8	3	8
Protein Foods (oz equiv)[f]	1.38	5	28	5	28	5.5	25
Dairy (cups)	1.25	3	42	3	42	3	42
Oils (tsp)	1.79	5	36	5	36	6	30
Calories from Solid Fats and Added Sugars	186	120	155	160	116	260	71
Calories from solid fats	117	n.a		n.a		n.a	
Calories from added sugars	69	n.a		n.a		n.a	
Number of Schools				**285**			

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Estimates are based on a weighted nutrient analysis of menu data for one week. A weighted nutrient analysis takes into account the frequency with which each menu item is selected by students. Two schools did not provide adequate data on the number of servings selected for each menu item and were excluded from the weighted analysis. The methodology is fully described in Appendix D of this report.

n.a. = Not applicable.

[a] USDA Food Pattern recommendations assign individuals to a calorie level based on their sex, age, and activity level. Most of the children that typically attend middle schools would require between 1,600 and 2,000 calories.

[b]Recommended daily amount of food from each group within a calorie level with the exception of the vegetable subgroups. Vegetable subgroups are recommended amounts per week.

[c]Percent of recommended daily amount from each group within calorie level.

[d]Includes only schools that provided menu information for 5 days.

[e]Includes legumes offered as a vegetable or included in combination entrees.

[f]Includes legumes offered as a meat alternate.

Table H.6. Average Amounts of Food Groups in National School Lunch Program Lunches *Served* to Students in High Schools, Relative to Reference USDA Food Patterns

		Calorie Levels[a]							
		1,800		2,000		2,200		2,400	
	Average Amount	Recommended Amount[b]	Percent of Recommendation[c]	Recommended Amount	Percent of Recommendation	Recommended Amount	Percent of Recommendation	Recommended Amount	Percent of Recommendation
Fruits (cup equiv)	0.49	1.5	33	2	25	2	25	2	25
Vegetables (cup equiv)	0.71	2.5	28	2.5	28	3	24	3	24
Dark green (cup/wk)[d]	0.15	1.5	10	1.5	10	2	8	2	8
Red and orange (cup/wk)[d]	1.02	5.5	19	5.5	19	6	17	6	17
Legumes (cup/wk)[d,e]	0.12	1.5	8	1.5	8	2	6	2	6
Starchy (cup/wk)[d]	1.30	5	26	5	26	6	22	6	22
Other (cup/wk)[d]	0.99	4	25	4	25	5	20	5	20
Grains (oz equiv)	2.60	6	43	6	43	7	37	8	32
Whole grains (oz equiv)	0.23	3	8	3	8	3.5	7	4	6
Protein Foods (oz equiv)[f]	1.48	5	30	5.5	27	6	25	6.5	23
Dairy (cup equiv)	1.29	3	43	3	43	3	43	3	43
Oils (tsp)	2.16	5	43	6	36	6	36	7	31
Calories from Solid Fats and Added Sugars	195	160	122	260	75	270	72	330	59
Calories from solid fats	123	n.a		n.a		n.a		n.a	
Calories from added sugars	72	n.a		n.a		n.a		n.a	
Number of Schools					**278**				

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Estimates are based on a weighted nutrient analysis of menu data for one week. A weighted nutrient analysis takes into account the frequency with which each menu item is selected by students. One school did not provide adequate data on the number of servings selected for each menu item and was excluded from the weighted analysis. The methodology is fully described in Appendix D of this report.

n.a. = Not applicable.

[a] USDA Food Pattern recommendations assign individuals to a calorie level based on their sex, age, and activity level. Most of the children that typically attend high schools would require between 1,800 and 2,400 calories.

[b] Recommended daily amount of food from each group within a calorie level with the exception of the vegetable subgroups. Vegetable subgroups are recommended amounts per week.

[c] Percent of recommended daily amount from each group within calorie level.

[d] Includes only schools that provided menu information for 5 days.

[e] Includes legumes offered as a vegetable or included in combination entrees.

[f] Includes legumes offered as a meat alternate.

Table H.7. Average Amounts of Food Groups in School Breakfast Program Breakfasts *Offered* to Students in Elementary Schools, Relative to Reference USDA Food Patterns

		Calorie Levels[a]							
		1,800		2,000		2,200		2,400	
	Average Amount	Recommended Amount[b]	Percent of Recommendation[c]	Recommended Amount	Percent of Recommendation	Recommended Amount	Percent of Recommendation	Recommended Amount	Percent of Recommendation
Fruits (cup equiv)	0.59	1	59	1.5	39	1.5	39	1.5	39
Vegetables (cup equiv)	0.01	1.5	1	1.5	1	2	1	2.5	0
Dark green (cup/wk)[d]	0.00~	1	0	1	0	1.5	0	1.5	0
Red and orange (cup/wk)[d]	0.02	3	1	3	1	4	1	5.5	0
Legumes (cup/wk)[d,e]	0.00~	0.5	0	0.5	0	1	0	1.5	0
Starchy (cup/wk)[d]	0.02	3.5	1	3.5	1	4	1	5	0
Other (cup/wk)[d]	0.01	2.5	0	2.5	0	3.5	0	4	0
Grains (oz equiv)	1.59	4	40	5	32	5	32	6	26
Whole grains (oz equiv)	0.33	2	16	2.5	13	3	11	3	11
Protein Foods (oz equiv)[f]	0.32	3	11	4	8	5	6	5	6
Dairy (cup equiv)	1.11	2.5	45	2.5	45	3	37	3	37
Oils (tsp)	0.26	4	6	4	6	5	5	5	5
Calories from Solid Fats and Added Sugars	146	120	122	120	122	120	122	160	91
Calories from solid fats	73	n.a		n.a		n.a		n.a	
Calories from added sugars	74	n.a		n.a		n.a		n.a	
Number of Schools				**282**					

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

n.a. = Not applicable.

[a] USDA Food Pattern recommendations assign individuals to a calorie level based on their sex, age, and activity level. Most of the children that typically attend elementary schools would require between 1,200 and 1,800 calories.

[b]Recommended daily amount of food from each group within a calorie level with the exception of the vegetable subgroups. Vegetable subgroups are recommended amounts per week.

[c]Percent of recommended daily amount from each group within calorie level.

[d]Includes only schools that provided menu information for 5 days.

[e]Includes legumes offered as a vegetable or included in combination entrees.

[f]Includes legumes offered as a meat alternate.

Table H.7 *(continued)*

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table H.8. Average Amounts of Food Groups in School Breakfast Program Breakfasts *Offered* to Students in Middle Schools, Relative to Reference USDA Food Patterns

		Calorie Levels[a]					
		1,600		1,800		2,000	
	Average Amount	Recommended Amount[b]	Percent of Recommendation[c]	Recommended Amount	Percent of Recommendation	Recommended Amount	Percent of Recommendation
Fruits (cup equiv)	0.64	1.5	43	1.5	43	2	32
Vegetables (cup equiv)	0.02	2	1	2.5	1	2.5	1
Dark green (cup/wk)[d]	0.00~	1.5	0	1.5	0	1.5	0
Red and Orange (cup/wk)[d]	0.05	4	1	5.5	1	5.5	1
Legumes (cup/wk)[d,e]	0.01~	1	1	1.5	1	1.5	1
Starchy (cup/wk)[d]	0.06	4	2	5	1	5	1
Other (cup/wk)[d]	0.01	3.5	0	4	0	4	0
Grains (oz equiv)	1.85	5	37	6	31	6	31
Whole grains (oz equiv)	0.26	3	9	3	9	3	9
Protein Foods (oz equiv)[f]	0.39	5	8	5	8	5.5	7
Dairy (cups)	1.14	3	38	3	38	3	38
Oils (tsp)	0.24	5	5	5	5	6	4
Calories from Solid Fats and Added Sugars	171	120	142	160	107	260	66
Calories from solid fats	87	n.a		n.a		n.a	
Calories from added sugars	84	n.a		n.a		n.a	
Number of Schools				**264**			

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

n.a. = Not applicable.

[a] USDA Food Pattern recommendations assign individuals to a calorie level based on their sex, age, and activity level. Most of the children that typically attend middle schools would require between 1,600 and 2,000 calories.

[b]Recommended daily amount of food from each group within a calorie level with the exception of the vegetable subgroups. Vegetable subgroups are recommended amounts per week.

[c]Percent of recommended daily amount from each group within calorie level.

[d]Includes only schools that provided menu information for 5 days.

[e]Includes legumes offered as a vegetable or included in combination entrees.

[f]Includes legumes offered as a meat alternate.

Table H.8 *(continued)*

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97. .

Table H.9. Average Amounts of Food Groups in School Breakfast Program Breakfasts *Offered* to Students in High Schools, Relative to Reference USDA Food Patterns

		Calorie Levels[a]							
		1,800		2,000		2,200		2,400	
	Average Amount	Recommended Amount[b]	Percent of Recommendation[c]	Recommended Amount	Percent of Recommendation	Recommended Amount	Percent of Recommendation	Recommended Amount	Percent of Recommendation
Fruits (cup equiv)	0.66	1.5	44	2	33	2	33	2	33
Vegetables (cup equiv)	0.02	2.5	1	2.5	1	3	1	3	1
Dark green (cup/wk)[d]	0.00	1.5	0	1.5	0	2	0	2	0
Red and orange (cup/wk)[d]	0.06	5.5	1	5.5	1	6	1	6	1
Legumes (cup/wk)[d,e]	0.01~	1.5	1	1.5	1	2	1	2	1
Starchy (cup/wk)[d]	0.05	5	1	5	1	6	1	6	1
Other (cup/wk)[d]	0.01	4	0	4	0	5	0	5	0
Grains (oz equiv)	1.95	6	33	6	33	7	28	8	24
Whole grains (oz equiv)	0.27	3	9	3	9	3.5	8	4	7
Protein Foods (oz equiv)[f]	0.40	5	8	5.5	7	6	7	6.5	6
Dairy (cup equiv)	1.12	3	37	3	37	3	37	3	37
Oils (tsp)	0.27	5	5	6	4	6	4	7	4
Calories from Solid Fats and Added Sugars	174	160	108	260	67	270	64	330	53
Calories from solid fats	91	n.a		n.a		n.a		n.a	
Calories from added sugars	82	n.a		n.a		n.a		n.a	
Number of Schools					**257**				

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

n.a. = Not applicable.

[a] USDA Food Pattern recommendations assign individuals to a calorie level based on their sex, age, and activity level. Sedentary activity levels are used to identify calorie levels. Most of the children that typically attend high schools would require between 1,800 and 2,400 calories.

[b]Recommended daily amount of food from each group within a calorie level with the exception of the vegetable subgroups. Vegetable subgroups are recommended amounts per week.

[c]Percent of recommended daily amount from each group within calorie level.

[d]Includes only schools that provided menu information for 5 days.

[e]Includes legumes offered as a vegetable or included in combination entrees.

Table H.9 *(continued)*

[f]Includes legumes offered as a meat alternate.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table H.10. Average Amounts of Food Groups in School Breakfast Program Breakfasts *Served* to Students in Elementary Schools, Relative to Reference USDA Food Patterns

		Calorie Levels[a]							
		1,200		1,400		1,600		1,800	
	Average Amount	Recommended Amount[b]	Percent of Recommendation[c]	Recommended Amount	Percent of Recommendation	Recommended Amount	Percent of Recommendation	Recommended Amount	Percent of Recommendation
Fruits (cup equiv)	0.50	1	50	1.5	33	1.5	33	1.5	33
Vegetables (cup equiv)	0.01	1.5	1	1.5	1	2	1	2.5	1
Dark green (cup/wk)[d]	0.00~	1	0	1	0	1.5	0	1.5	0
Red and orange (cup/wk)[d]	0.02	3	1	3	1	4	1	5.5	0
Legumes (cup/wk)[d,e]	0.00~	0.5	0	0.5	0	1	0	1.5	0
Starchy (cup/wk)[d]	0.04	3.5	1	3.5	1	4	1	5	1
Other (cup/wk)[d]	0.01	2.5	0	2.5	0	3.5	0	4	0
Grains (oz equiv)	1.60	4	40	5	32	5	32	6	27
Whole grains (oz equiv)	0.28	2	14	2.5	11	3	9	3	9
Protein Foods (oz equiv)[f]	0.35	3	12	4	9	5	7	5	7
Dairy (cup equiv)[f]	0.99	2.5	40	2.5	40	3	33	3	33
Oils (tsp)	0.23	4	6	4	6	5	5	5	5
Calories from Solid Fats and Added Sugars	144	120	120	120	120	120	120	160	90
Calories from solid fats	76	n.a		n.a		n.a		n.a	
Calories from added sugars	69	n.a		n.a		n.a		n.a	
Number of Schools				**282**					

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Estimates are based on a weighted nutrient analysis of menu data for one week. A weighted nutrient analysis takes into account the frequency with which each menu item is selected by students. The methodology is fully described in Appendix D of this report.

n.a. = Not applicable.

[a] USDA Food Pattern recommendations assign individuals to a calorie level based on their sex, age, and activity level. Most of the children that typically attend elementary schools would require between 1,200 and 1,800 calories.

[b]Recommended daily amount of food from each group within a calorie level with the exception of the vegetable subgroups. Vegetable subgroups are recommended amounts per week.

[c]Percent of recommended daily amount from each group within calorie level.

[d]Includes only schools that provided menu information for 5 days.

[e]Includes legumes offered as a vegetable or included in combination entrees.

Table H.10 *(continued)*

[f]Includes legumes offered as a meat alternate.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table H.11. Average Amounts of Food Groups in School Breakfast Program Breakfasts *Served* to Students in Middle Schools, Relative to Reference USDA Food Patterns

		Calorie Levels[a]					
		1,600		1,800		2,000	
	Average Amount	Recommended Amount[b]	Percent of Recommendation[c]	Recommended Amount	Percent of Recommendation	Recommended Amount	Percent of Recommendation
Fruits (cup equiv)	0.54	1.5	36	1.5	36	2	27
Vegetables (cup equiv)	0.03	2	1	2.5	1	2.5	1
Dark green (cup/wk)[d]	0.00~	1.5	0	1.5	0	1.5	0
Red and Orange (cup/wk)[d]	0.03	4	1	5.5	1	5.5	1
Legumes (cup/wk)[d,e]	0.01~	1	1	1.5	1	1.5	1
Starchy (cup/wk)[d]	0.09	4	2	5	2	5	2
Other (cup/wk)[d]	0.01	3.5	0	4	0	4	0
Grains (oz equiv)	1.97	5	39	6	33	6	33
Whole grains (oz equiv)	0.22	3	7	3	7	3	7
Protein Foods (oz equiv)[f]	0.50	5	10	5	10	5.5	9
Dairy (cups)	0.99	3	33	3	33	3	33
Oils (tsp)	0.24	5	5	5	5	6	4
Calories from Solid Fats and Added Sugars	177	120	147	160	110	260	68
Calories from solid fats	98	n.a		n.a		n.a	
Calories from added sugars	79	n.a		n.a		n.a	
Number of Schools				**263**			

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Estimates are based on a weighted nutrient analysis of menu data for one week. A weighted nutrient analysis takes into account the frequency with which each menu item is selected by students. One school did not provide adequate data on the number of servings selected for each menu item and was excluded from the weighted analysis. The methodology is fully described in Appendix D of this report.

n.a. = Not applicable.

[a] USDA Food Pattern recommendations assign individuals to a calorie level based on their sex, age, and activity level. Most of the children that typically attend middle schools would need between 1,600 and 2,000 calories.

[b]Recommended daily amount of food from each group within a calorie level with the exception of the vegetable subgroups. Vegetable subgroups are recommended amounts per week.

[c]Percent of recommended daily amount from each group within calorie level.

[d]Includes only schools that provided menu information for 5 days.

[e]Includes legumes offered as a vegetable or included in combination entrees.

[f]Includes legumes offered as a meat alternate.

Table H.11 *(continued)*

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table H.12. Average Amounts of Food Groups in School Breakfast Program Breakfasts *Served* to Students in High Schools, Relative to Reference USDA Food Patterns

		Calorie Levels[a]							
		1,800		2,000		2,200		2,400	
	Average Amount	Recommended Amount[b]	Percent of Recommendation[c]	Recommended Amount	Percent of Recommendation	Recommended Amount	Percent of Recommendation	Recommended Amount	Percent of Recommendation
Fruits (cup equiv)	0.58	1.5	39	2	29	2	29	2	29
Vegetables (cup equiv)	0.03	2.5	1	2.5	1	3	1	3	1
Dark green (cup/wk)[d]	0.00	1.5	0	1.5	0	2	0	2	0
Red and orange (cup/wk)[d]	0.05	5.5	1	5.5	1	6	1	6	1
Legumes (cup/wk)[d,e]	0.02~	1.5	1	1.5	1	2	1	2	1
Starchy (cup/wk)[d]	0.09	5	2	5	2	6	2	6	2
Other (cup/wk)[d]	0.02	4	1	4	1	5	0	5	0
Grains (oz equiv)	2.11	6	35	6	35	7	30	8	26
Whole grains (oz equiv)	0.22	3	7	3	7	3.5	6	4	5
Protein Foods (oz equiv)[f]	0.51	5	10	5.5	9	6	9	6.5	8
Dairy (cup equiv)	0.93	3	31	3	31	3	31	3	31
Oils (tsp)	0.24	5	5	6	4	6	4	7	3
Calories from Solid Fats and Added Sugars	171	160	107	260	66	270	63	330	52
Calories from solid fats	100	n.a		n.a		n.a		n.a	
Calories from added sugars	71	n.a		n.a		n.a		n.a	
Number of Schools					**257**				

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Estimates are based on a weighted nutrient analysis of menu data for one week. A weighted nutrient analysis takes into account the frequency with which each menu item is selected by students. The methodology is fully described in Appendix D of this report.

n.a. = Not applicable.

[a] USDA Food Pattern recommendations assign individuals to a calorie level based on their sex, age, and activity level. Most of the children that typically attend high schools would need between 1,800 and 2,400 calories.

[b] Recommended daily amount of food from each group within a calorie level with the exception of the vegetable subgroups. Vegetable subgroups are recommended amounts per week.

[c] Percent of recommended daily amount from each group within calorie level.

[d] Includes only schools that provided menu information for 5 days.

[e] Includes legumes offered as a vegetable or included in combination entrees.

Table H.12 *(continued)*

[f]Includes legumes offered as a meat alternate.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table H.13. Average Amounts of Food Groups per 1,000 Calories in National School Lunch Program Lunches *Offered* to Students, by School Type

		Elementary Schools		Middle Schools		High Schools		All Schools	
	Recommended Amount per 1,000 Calories[a]	Average Amount	Percent of Recommendation	Average Amount	Percent of Recommendation	Average Amount	Percent of Recommendation	Average Amount	Percent of Recommendation
Total Fruit	≥ 0.8 cup equiv	1.03	129	1.08	135	1.09	137	1.05	131
Whole Fruit (not Juice)	≥ 0.4 cup equiv	0.86	216	0.90	224	0.95	238[γ]	0.89	222
Total Vegetables	≥ 1.1 cup equiv	0.98	90	1.04	95	1.05	96[γ]	1.01	92
Dark Green and Orange Vegetables and Legumes[b]	≥ 0.4 cup equiv	0.21	52	0.20	49	0.18	46[γ]	0.20	50
Total Grains	≥ 3.0 oz equiv	3.25	108[α]	3.39	113	3.42	114[γ]	3.31	110
Whole Grains	≥ 1.5 oz equiv	0.40	26	0.37	25	0.34	23	0.38	25
Protein Foods[c]	≥ 2.5 oz equiv	2.07	83	2.04	82	2.01	80	2.06	82
Dairy	≥ 1.3 cup equiv	1.93	149[α]	1.84	141[β]	1.74	134[γ]	1.88	144
Oils	≥ 12 gm	12.29	102	12.54	104[β]	13.55	113[γ]	12.59	105
Number of Schools		**318**		**287**		**279**		**884**	

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]Recommended amounts per 1,000 calories are based on the standards used in the Healthy Eating Index–2005 (Guenther et al., 2008).

[b]Includes legumes offered as a vegetable or included in combination entrees.

[c]Includes legumes offered as a meat alternate.

[α]Difference between elementary and middle schools is significantly different from zero at the .05 level.

[β]Difference between middle and high schools is significantly different from zero at the .05 level.

[γ]Difference between elementary and high schools is significantly different from zero at the .05 level.

Table H.14. Average Amount of Food Groups per 1,000 Calories in National School Lunch Program Lunches *Served* to Students, By School Type

		Elementary Schools		Middle Schools		High Schools		All Schools	
	Recommended Amount per 1,000 Calories[a]	Average Amount	Percent of Recommendation	Average Amount	Percent of Recommendation	Average Amount	Percent of Recommendation	Average Amount	Percent of Recommendation
Total Fruit	≥ 0.8 cup equiv	0.74	92[α]	0.66	83	0.68	85	0.71	89
Whole Fruit (not Juice)	≥ 0.4 cup equiv	0.65	162[α]	0.52	129	0.56	139[γ]	0.60	151
Total Vegetables	≥ 1.1 cup equiv	0.87	79	0.88	80[β]	0.95	87[γ]	0.89	81
Dark Green and Orange Vegetables and Legumes[b]	≥ 0.4 cup equiv	0.15	37[α]	0.13	31	0.13	33	0.14	35
Total Grains	≥ 3.0 oz equiv	3.40	113[α]	3.65	122	3.59	120[γ]	3.48	116
Whole Grains	≥ 1.5 oz equiv	0.38	26	0.37	25	0.33	22[γ]	0.37	25
Protein Foods[c]	≥ 2.5 oz equiv	2.06	82	2.05	82	2.06	82	2.06	82
Dairy	≥ 1.3 cup equiv	1.98	153[α]	1.85	143	1.79	137[γ]	1.92	148
Oils	≥ 12 gm	10.72	89	11.50	96[β]	13.09	109[γ]	11.34	95
Number of Schools		**317**		**285**		**278**		**880**	

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Estimates are based on a weighted nutrient analysis of menu data for one week. A weighted nutrient analysis takes into account the frequency with which each menu item is selected by students. Four schools did not provide adequate data on the number of servings selected for each menu item and were excluded from the weighted analysis. The methodology is fully described in Appendix D of this report.

[a]Recommended amounts per 1,000 calories are based on the standards used in the Healthy Eating Index–2005 (Guenther et al., 2008).

[b]Includes legumes offered as a vegetable or included in combination entrees.

[c]Includes legumes offered as a meat alternate.

[α]Difference between elementary and middle schools is significantly different from zero at the .05 level.

[β]Difference between middle and high schools is significantly different from zero at the .05 level.

[γ]Difference between elementary and high schools is significantly different from zero at the .05 level.

Table H.15. Average Amounts of Food Groups per 1,000 Calories in School Breakfast Program Breakfasts *Offered* to Students, By School Type

		Elementary Schools		Middle Schools		High Schools		All Schools	
	Recommended Amount per 1,000 Calories[a]	Average Amount	Percent of Recommendation	Average Amount	Percent of Recommendation	Average Amount	Percent of Recommendation	Average Amount	Percent of Recommendation
Total Fruit	≥ 0.8 cup equiv	1.31	164	1.28	160	1.31	163	1.30	163
Whole Fruit (not Juice)	≥ 0.4 cup equiv	0.49	121	0.51	126	0.50	126	0.49	123
Total Vegetables	≥ 1.1 cup equiv	0.02	2$^{\alpha}$	0.04	3	0.04	4$^{\gamma}$	0.03	3
Dark Green and Orange Vegetables and Legumes[b]	≥ 0.4 cup equiv	0.00~	0	0.00~	1	0.00~	1	0.00~	0
Total Grains	≥ 3.0 oz equiv	3.44	115	3.55	118	3.68	123$^{\gamma}$	3.51	117
Whole Grains	≥ 1.5 oz equiv	0.73	49$^{\alpha}$	0.51	34	0.54	36$^{\gamma}$	0.65	44
Protein Foods[c]	≥ 2.5 oz equiv	0.67	27	0.74	30	0.73	29	0.69	28
Dairy	≥ 1.3 cup equiv	2.50	193$^{\alpha}$	2.32	179$^{\beta}$	2.22	171$^{\gamma}$	2.41	186
Oils	≥ 12 gm	2.45	20	2.06	17	2.28	19	2.35	20
Number of Schools		**282**		**264**		**257**		**803**	

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

[a]Recommended amounts per 1,000 calories are based on the standards used in the Healthy Eating Index–2005 (Guenther et al., 2008).

[b]Includes legumes offered as a vegetable or included in combination entrees.

[c]Includes legumes offered as a meat alternate.

[α]Difference between elementary and middle schools is significantly different from zero at the .05 level.

[β]Difference between middle and high schools is significantly different from zero at the .05 level.

[γ]Difference between elementary and high schools is significantly different from zero at the .05 level.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

Table H.16. Average Amounts of Food Groups per 1,000 Calories in School Breakfast Program Breakfasts *Served* to Students, By School Type

		Elementary Schools		Middle Schools		High Schools		All Schools	
	Recommended Amount per 1,000 Calories[a]	Average Amount	Percent of Recommendation	Average Amount	Percent of Recommendation	Average Amount	Percent of Recommendation	Average Amount	Percent of Recommendation
Total Fruit	≥ 0.8 cup equiv	1.15	144	1.10	138	1.18	148	1.15	144
Whole Fruit (not Juice)	≥ 0.4 cup equiv	0.36	89[α]	0.28	70	0.32	79	0.33	84
Total Vegetables	≥ 1.1 cup equiv	0.03	3[α]	0.05	5	0.06	5[γ]	0.04	4
Dark Green and Orange Vegetables and Legumes[b]	≥ 0.4 cup equiv	0.00~	0	0.00~	1	0.01~	1	0.00~	1
Total Grains	≥ 3.0 oz equiv	3.71	124[α]	3.97	132[β]	4.17	139[γ]	3.85	128
Whole Grains	≥ 1.5 oz equiv	0.68	45[α]	0.44	30	0.45	30[γ]	0.59	39
Protein Foods[c]	≥ 2.5 oz equiv	0.78	31[α]	1.02	41	1.00	40[γ]	0.87	35
Dairy	≥ 1.3 cup equiv	2.31	178[α]	1.99	153[β]	1.85	143[γ]	2.16	166
Oils	≥ 12 gm	2.35	20	2.20	18	2.22	19	2.30	19
Number of Schools		**282**		**263**		**257**		**802**	

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Estimates are based on a weighted nutrient analysis of menu data for one week. A weighted nutrient analysis takes into account the frequency with which each menu item is selected by students. One school did not provide adequate data on the number of servings selected for each menu item and was excluded from the weighted analysis. The methodology is fully described in Appendix D of this report.

[a]Recommended amounts per 1,000 calories are based on the standards used in the Healthy Eating Index–2005 (Guenther et al., 2008).

[b]Includes legumes offered as a vegetable or included in combination entrees.

[c]Includes legumes offered as a meat alternate.

[α]Difference between elementary and middle schools is significantly different from zero at the .05 level.

[β]Difference between middle and high schools is significantly different from zero at the .05 level.

[γ]Difference between elementary and high schools is significantly different from zero at the .05 level.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1. When these rules are applied, percentages close to 0 or 100 are often flagged. In this table, flagged percentages between 0 and 3 percent are displayed as <3 and flagged percentages between 97 and 100 percent are displayed as >97.

APPENDIX I

SUPPLEMENTAL TABLES FOR CHAPTER 9

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TABLES

Table I.1. Food Sources of Calories in National School Lunch Program Lunches as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Calories			
1	1% milk, flavored	6.4	5.9	6.2
2	Pizza and pizza products	5.3	6.8[β]	5.9
3	Peanut butter sandwiches	5.7	2.6[β]	4.4
4	Sandwiches with plain meat or poultry	4.4	4.5	4.4
5	Hamburgers/cheeseburgers	3.7	4.7[β]	4.1
6	Condiments, toppings and spreads	3.7	4.2	3.9
7	Bread, rolls, bagels	3.4	4.2[α]	3.7
8	Mexican–style entrees	3.9	3.4	3.7
9	Salad dressings	3.4	3.8	3.5
10	1% milk, unflavored	3.8	3.2[β]	3.5
11	Entree food bars, bag/pre–plated lunches	3.3	3.1	3.2
12	Entree salads, entree salad bars	2.9	3.6	3.2
13	Skim or nonfat milk, flavored	3.3	2.9	3.2
14	Cookies, cakes, brownies	3.2	2.9	3.1
15	Lettuce salads	2.6	2.7	2.7
16	French fries/potato products	2.2	3.1[β]	2.6
17	Breaded/fried meat or poultry sandwich	1.6	3.2[β]	2.3
18	Breaded/fried chicken products	2.0	1.8	1.9
19	Hot dog, corn dog, sausage sandwiches	2.0	1.5[α]	1.8
20	Rice/pasta	1.6	2.0	1.8
21	2% milk, unflavored	1.7	1.8	1.8
22	Fruit juice, 100%	1.6	1.7	1.6
23	Skim or nonfat milk, unflavored	1.6	1.4[α]	1.5
24	Mixtures with pasta or noodle base	1.8	1.1[β]	1.5
25	Apple	1.4	1.7[α]	1.5
26	Crackers and pretzels	1.6	1.2	1.4
27	Cheese sandwiches	1.5	0.8[β]	1.2
28	Citrus fruit	1.0	1.2	1.1
29	Pears	0.9	1.1	1.0
30	Unbreaded poultry/meat/fish	1.1	0.8[α]	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

Sandwiches may have included cheese.

Lettuce salads includes side salad bars, which include an average serving of salad dressing.

Entree salad bars include an average serving of salad dressing.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.2. Food Sources of Total Fat in National School Lunch Program Lunches as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Total Fat			
1	Salad dressings	8.9	9.9	9.3
2	Condiments, toppings and spreads	6.7	8.2[α]	7.3
3	Peanut butter sandwiches	9.1	4.1[β]	7.0
4	Pizza and pizza products	5.7	7.3[β]	6.4
5	Hamburgers/cheeseburgers	4.4	5.7[β]	4.9
6	Mexican–style entrees	5.1	4.4	4.9
7	Sandwiches with plain meat or poultry	4.8	4.9	4.8
8	Entree salads, entree salad bars	4.4	5.1	4.7
9	Lettuce salads	4.5	4.5	4.5
10	Entree food bars, bag/pre–plated lunches	3.6	3.5	3.6
11	French fries/potato products	2.9	4.2[β]	3.4
12	Cookies, cakes, brownies	3.6	3.2	3.4
13	Breaded/fried chicken products	3.0	2.6	2.9
14	Breaded/fried meat or poultry sandwich	1.9	3.7[β]	2.6
15	Hot dog, corn dog, sausage sandwiches	2.8	2.2	2.5
16	1% milk, flavored	2.6	2.4	2.5
17	1% milk, unflavored	2.4	2.0[β]	2.3
18	2% milk, unflavored	1.9	1.9	1.9
19	Bread, rolls, bagels	1.6	1.9	1.7
20	Cheese sandwiches	2.1	1.1[β]	1.7
21	Mixtures with pasta or noodle base	1.9	1.1[β]	1.6
22	Unbreaded poultry/meat/fish	1.6	1.2[α]	1.5
23	Crackers and pretzels	1.4	1.0	1.2
24	Rice/pasta	1.0	1.3	1.1
25	Snack chips popcorn, potato chips	0.7	1.3[α]	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

Sandwiches may have included cheese.

Lettuce salads includes side salad bars, which include an average serving of salad dressing.

Entree salad bars include an average serving of salad dressing.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.3. Food Sources of Saturated Fat in National School Lunch Program Lunches as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Saturated Fat			
1	Pizza and pizza products	7.4	9.6[β]	8.3
2	Sandwiches with plain meat or poultry	6.6	6.7	6.6
3	Entree salads, entree salad bars	6.3	6.8	6.5
4	Hamburgers/cheeseburgers	5.3	7.0[β]	6.0
5	Condiments, toppings and spreads	5.3	6.2	5.7
6	Mexican–style entrees	6.0	5.2	5.7
7	1% milk, flavored	5.2	4.9	5.1
8	1% milk, unflavored	5.1	4.3[β]	4.8
9	Salad dressings	4.4	5.0	4.6
10	Peanut butter sandwiches	5.9	2.7[β]	4.6
11	2% milk, unflavored	3.9	4.0	4.0
12	Entree food bars, bag/pre–plated lunches	3.8	3.7	3.8
13	Cheese sandwiches	3.5	1.8[β]	2.8
14	Cookies, cakes, brownies	2.9	2.6	2.8
15	Lettuce salads	2.4	2.6	2.5
16	Hot dog, corn dog, sausage sandwiches	2.7	2.3	2.5
17	Breaded/fried meat or poultry sandwich	1.4	2.8[β]	2.0
18	Mixtures with pasta or noodle base	2.3	1.4[β]	1.9
19	Breaded/fried chicken products	2.0	1.7	1.9
20	French fries/potato products	1.4	2.1[β]	1.7
21	Unbreaded poultry/meat/fish	1.8	1.3	1.6
22	Bread, rolls, bagels	1.2	1.5[α]	1.3
23	Rice/pasta	1.0	1.2	1.1

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

Sandwiches may have included cheese.

Lettuce salads includes side salad bars, which include an average serving of salad dressing.

Entree salad bars include an average serving of salad dressing.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.4. Food Sources of Monounsaturated Fat in National School Lunch Program Lunches as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Monounsaturated Fat			
1	Peanut butter sandwiches	12.3	5.5[β]	9.5
2	Salad dressings	7.4	8.4	7.8
3	Condiments, toppings and spreads	5.7	7.1[α]	6.3
4	Pizza and pizza products	5.0	6.6[β]	5.6
5	Hamburgers/cheeseburgers	4.9	6.4[β]	5.5
6	Mexican–style entrees	5.4	4.8	5.2
7	Sandwiches with plain meat or poultry	4.4	4.7	4.5
8	French fries/potato products	3.5	5.4[β]	4.3
9	Cookies, cakes, brownies	4.5	4.0	4.3
10	Entree salads, entree salad bars	3.9	4.6	4.2
11	Lettuce salads	3.6	3.8	3.7
12	Entree food bars, bag/pre–plated lunches	3.6	3.5	3.6
13	Breaded/fried chicken products	3.2	2.8	3.1
14	Breaded/fried meat or poultry sandwich	2.1	4.1[β]	2.9
15	Hot dog, corn dog, sausage sandwiches	3.0	2.6	2.8
16	1% milk, flavored	2.2	2.0	2.1
17	1% milk, unflavored	2.0	1.7[β]	1.8
18	Bread, rolls, bagels	1.6	2.1[α]	1.8
19	Crackers and pretzels	2.0	1.5	1.8
20	Mixtures with pasta or noodle base	2.0	1.2[β]	1.7
21	Unbreaded poultry/meat/fish	1.8	1.4	1.6
22	2% milk, unflavored	1.5	1.6	1.6
23	Cheese sandwiches	1.8	1.0[β]	1.5
24	Rice/pasta	0.9	1.2	1.0
25	Snack chips popcorn, potato chips	0.8	1.3[α]	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

Sandwiches may have included cheese.

Lettuce salads includes side salad bars, which include an average serving of salad dressing.

Entree salad bars include an average serving of salad dressing.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.5. Food Sources of Polyunsaturated Fat in National School Lunch Program Lunches as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Polyunsaturated Fat			
1	Salad dressings	17.2	18.3	17.7
2	Condiments, toppings and spreads	10.0	12.5[α]	11.1
3	Lettuce salads	8.1	7.5	7.8
4	Peanut butter sandwiches	10.0	4.3[β]	7.6
5	Pizza and pizza products	4.5	5.4[α]	4.9
6	French fries/potato products	4.2	5.7[β]	4.8
7	Breaded/fried chicken products	4.0	3.3	3.7
8	Entree food bars, bag/pre–plated lunches	3.4	3.2	3.3
9	Cookies, cakes, brownies	3.3	3.0	3.1
10	Breaded/fried meat or poultry sandwich	2.2	4.3[β]	3.1
11	Sandwiches with plain meat or poultry	3.0	3.1	3.0
12	Entree salads, entree salad bars	2.6	3.5	3.0
13	Mexican–style entrees	2.9	2.4	2.7
14	Hot dog, corn dog, sausage sandwiches	2.7	1.8[β]	2.3
15	Hamburgers/cheeseburgers	2.0	2.3	2.1
16	Bread, rolls, bagels	2.0	2.2	2.1
17	Snack chips popcorn, potato chips	1.0	1.9[α]	1.4
18	Rice/pasta	1.0	1.6	1.2
19	Mixed vegetables	1.0	1.0	1.0
20	Sandwich with mayonnaise–based poultry, tuna or eggs	0.8	1.3	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

Sandwiches may have included cheese.

Lettuce salads includes side salad bars, which include an average serving of salad dressing.

Entree salad bars include an average serving of salad dressing.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.6. Food Sources of Linoleic Acid in National School Lunch Program Lunches as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Linoleic Acid			
1	Salad dressings	17.0	18.2	17.5
2	Condiments, toppings and spreads	9.9	12.4[α]	11.0
3	Peanut butter sandwiches	11.1	4.8[β]	8.4
4	Lettuce salads	8.0	7.5	7.8
5	Pizza and pizza products	4.5	5.4[α]	4.9
6	French fries/potato products	3.9	5.4[β]	4.6
7	Breaded/fried chicken products	4.1	3.4	3.8
8	Entree food bars, bag/pre–plated lunches	3.5	3.2	3.4
9	Cookies, cakes, brownies	3.4	3.1	3.3
10	Breaded/fried meat or poultry sandwich	2.2	4.3[β]	3.1
11	Sandwiches with plain meat or poultry	2.8	2.9	2.9
12	Entree salads, entree salad bars	2.4	3.4	2.8
13	Mexican–style entrees	2.9	2.4	2.7
14	Hot dog, corn dog, sausage sandwiches	2.8	1.9[β]	2.4
15	Bread, rolls, bagels	2.0	2.2	2.1
16	Hamburgers/cheeseburgers	1.9	2.3	2.1
17	Snack chips popcorn, potato chips	1.1	2.1[α]	1.5
18	Rice/pasta	1.0	1.6	1.2
19	Mixed vegetables	1.0	1.0	1.0
20	Sandwich with mayonnaise–based poultry, tuna or eggs	0.8	1.3	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

Sandwiches may have included cheese.

Lettuce salads includes side salad bars, which include an average serving of salad dressing.

Entree salad bars include an average serving of salad dressing.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.7. Food Sources of Alpha-Linolenic Acid in National School Lunch Program Lunches as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Alpha-Linolenic Acid			
1	Salad dressings	21.1	20.6	20.9
2	Condiments, toppings and spreads	11.8	13.7	12.6
3	Lettuce salads	9.7	8.5	9.1
4	French fries/potato products	6.5	8.7[α]	7.5
5	Pizza and pizza products	4.7	5.1	4.9
6	Entree salads, entree salad bars	3.3	4.1	3.6
7	Sandwiches with plain meat or poultry	3.0	2.9	2.9
8	Entree food bars, bag/pre-plated lunches	2.9	2.9	2.9
9	Breaded/fried chicken products	3.2	2.5[α]	2.9
10	Breaded/fried meat or poultry sandwich	1.9	3.4[β]	2.6
11	Mexican-style entrees	2.7	2.0[α]	2.4
12	Cookies, cakes, brownies	2.4	2.2	2.3
13	Hamburgers/cheeseburgers	2.0	2.2	2.1
14	Bread, rolls, bagels	1.8	1.7	1.7
15	Hot dog, corn dog, sausage sandwiches	1.7	1.3[α]	1.5
16	Rice/pasta	0.9	1.5	1.2
17	Mixed vegetables	1.2	1.1	1.1
18	Peanut butter sandwiches	1.5	0.6[β]	1.1
19	Sandwich with mayonnaise-based poultry, tuna or eggs	0.9	1.3	1.1
20	Cheese sandwiches	1.4	0.7[β]	1.1

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

Sandwiches may have included cheese.

Lettuce salads includes side salad bars, which include an average serving of salad dressing.

Entree salad bars include an average serving of salad dressing.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.8. Food Sources of Carbohydrate in National School Lunch Program Lunches as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Carbohydrate			
1	1% milk, flavored	8.2	7.6	7.9
2	Pizza and pizza products	4.7	5.9[β]	5.2
3	Bread, rolls, bagels	4.5	5.6[α]	4.9
4	Skim or nonfat milk, flavored	4.8	4.3	4.6
5	Cookies, cakes, brownies	3.7	3.4	3.6
6	Peanut butter sandwiches	4.2	2.0[β]	3.3
7	1% milk, unflavored	3.3	2.9[β]	3.1
8	Sandwiches with plain meat or poultry	3.0	3.1	3.0
9	Entree food bars, bag/pre–plated lunches	3.1	2.8	3.0
10	Fruit juice, 100%	3.0	3.0	3.0
11	Apple	2.7	3.3[α]	2.9
12	Hamburgers/cheeseburgers	2.6	3.2[β]	2.9
13	Condiments, toppings and spreads	2.8	2.6	2.7
14	French fries/potato products	2.3	3.1[β]	2.6
15	Mexican–style entrees	2.6	2.3	2.5
16	Rice/pasta	2.1	2.5	2.3
17	Lettuce salads	2.1	2.1	2.1
18	Citrus fruit	2.0	2.3	2.1
19	Pears	1.9	2.2	2.0
20	Breaded/fried meat or poultry sandwich	1.3	2.5[β]	1.8
21	Peaches	1.7	1.9	1.8
22	Banana	1.7	1.7	1.7
23	Crackers and pretzels	1.9	1.4	1.7
24	Skim or nonfat milk, unflavored	1.8	1.5[α]	1.7
25	Entree salads, entree salad bars	1.2	1.8	1.5
26	Fruit cocktail	1.4	1.4	1.4
27	Corn	1.3	1.3	1.3
28	Applesauce	1.4	1.2	1.3
29	Mixtures with pasta or noodle base	1.6	0.9[β]	1.3
30	2% milk, unflavored	1.2	1.3	1.2
31	Hot dog, corn dog, sausage sandwiches	1.4	1.0[β]	1.2
32	Fruit–based desserts	1.2	1.2	1.2
33	White potatoes	1.2	1.2	1.2
34	Legumes	1.2	1.1	1.1
35	Salad dressings	1.0	1.1	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

Sandwiches may have included cheese.

Lettuce salads includes side salad bars, which include an average serving of salad dressing.

Entree salad bars include an average serving of salad dressing.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.9. Food Sources of Protein in National School Lunch Program Lunches as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Protein			
1	Sandwiches with plain meat or poultry	7.2	7.6	7.3
2	1% milk, flavored	7.5	7.1	7.3
3	1% milk, unflavored	7.3	6.3[β]	6.9
4	Pizza and pizza products	6.2	7.9[β]	6.9
5	Hamburgers/cheeseburgers	5.1	6.7[β]	5.8
6	Entree salads, entree salad bars	5.2	6.3	5.7
7	Mexican–style entrees	4.9	4.5	4.7
8	Skim or nonfat milk, flavored	4.8	4.3	4.6
9	Peanut butter sandwiches	4.8	2.2[β]	3.8
10	Skim or nonfat milk, unflavored	3.9	3.4	3.7
11	Breaded/fried chicken products	3.5	3.0	3.3
12	Entree food bars, bag/pre–plated lunches	3.1	3.2	3.2
13	Bread, rolls, bagels	2.8	3.4	3.0
14	Breaded/fried meat or poultry sandwich	2.1	4.1[β]	2.9
15	2% milk, unflavored	2.8	2.9	2.8
16	Unbreaded poultry/meat/fish	2.8	2.1[α]	2.5
17	Mixtures with pasta or noodle base	2.3	1.4[β]	2.0
18	Hot dog, corn dog, sausage sandwiches	2.0	1.5[α]	1.8
19	Condiments, toppings and spreads	1.6	1.7	1.7
20	Cheese sandwiches	1.8	0.9[β]	1.4
21	Rice/pasta	1.2	1.4	1.3
22	Lettuce salads	1.1	1.3	1.1
23	Legumes	1.1	1.0	1.1
24	Mixtures with meat/grain/vegetables	0.9	1.3[α]	1.1

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

Sandwiches may have included cheese.

Lettuce salads includes side salad bars, which include an average serving of salad dressing.

Entree salad bars include an average serving of salad dressing.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.10. Food Sources of Vitamin A (RE) in National School Lunch Program Lunches as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Vitamin A (RE)			
1	Carrots	23.9	19.2[α]	22.1
2	1% milk, flavored	8.8	9.1	8.9
3	1% milk, unflavored	8.3	7.9	8.2
4	Entree salads, entree salad bars	6.7	8.6[α]	7.4
5	Lettuce salads	5.3	6.2	5.6
6	Mixed vegetables	5.2	5.8	5.4
7	Skim or nonfat milk, flavored	5.3	5.2	5.2
8	Skim or nonfat milk, unflavored	4.7	4.5	4.6
9	2% milk, unflavored	3.1	3.5	3.3
10	Entree food bars, bag/pre–plated lunches	3.3	2.1	2.9
11	Condiments, toppings and spreads	2.6	3.0	2.8
12	Pizza and pizza products	2.2	2.9[β]	2.5
13	Yams, sweet potatoes	2.8	1.5	2.3
14	Leafy greens	0.9	1.9[α]	1.3
15	Citrus fruit	1.1	1.4	1.2
16	Sandwiches with plain meat or poultry	1.2	1.3	1.2
17	Mexican–style entrees	1.0	1.0	1.0
18	Peaches	0.9	1.1[α]	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

Sandwiches may have included cheese.

Lettuce salads includes side salad bars, which include an average serving of salad dressing.

Entree salad bars include an average serving of salad dressing.

RE = Retinol equivalents.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.11. Food Sources of Vitamin A (RAE) in National School Lunch Program Lunches as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Vitamin A (RAE)			
1	Carrots	16.3	12.8[α]	14.9
2	1% milk, flavored	11.8	12.2	12.0
3	1% milk, unflavored	11.3	10.5	11.0
4	Skim or nonfat milk, flavored	7.2	7.0	7.1
5	Skim or nonfat milk, unflavored	6.4	6.0	6.3
6	Entree salads, entree salad bars	5.5	6.9[α]	6.0
7	2% milk, unflavored	4.2	4.7	4.4
8	Pizza and pizza products	3.6	4.6[β]	4.0
9	Lettuce salads	3.7	4.3	3.9
10	Mixed vegetables	3.6	4.0	3.7
11	Condiments, toppings and spreads	2.6	3.0	2.8
12	Entree food bars, bag/pre–plated lunches	2.9	2.0	2.6
13	Mexican–style entrees	1.7	1.6	1.6
14	Yams, sweet potatoes	1.9	1.0	1.6
15	Sandwiches with plain meat or poultry	1.5	1.7	1.6
16	Cheese sandwiches	1.5	0.8[β]	1.2
17	Cookies, cakes, brownies	1.1	1.2	1.1

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

Sandwiches may have included cheese.

Lettuce salads includes side salad bars, which include an average serving of salad dressing.

Entree salad bars include an average serving of salad dressing.

RAE = Retinol activity equivalents.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.12. Food Sources of Vitamin C in National School Lunch Program Lunches as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Vitamin C			
1	Citrus fruit	23.6	26.2	24.7
2	Fruit juice, 100%	19.4	18.1	18.8
3	Lettuce salads	5.7	5.4	5.6
4	Broccoli	5.2	4.4	4.8
5	Entree salads, entree salad bars	3.5	4.1	3.8
6	French fries/potato products	3.1	3.6	3.3
7	Condiments, toppings and spreads	3.0	3.1	3.0
8	Apple	2.7	3.0	2.8
9	Entree food bars, bag/pre–plated lunches	2.5	2.5	2.5
10	Mixed vegetables	2.2	2.1	2.1
11	Banana	2.0	1.8	1.9
12	Peaches	1.5	2.4	1.9
13	Fruit–based desserts	2.0	1.6	1.8
14	Berries	2.1	1.4	1.8
15	Pineapple	1.8	1.5	1.7
16	Kiwis	1.7	1.4	1.6
17	Juice drinks not 100% juice	1.2	2.0	1.5
18	White potatoes	1.3	1.4	1.4
19	1% milk, flavored	1.3	1.1	1.2
20	Mixtures with pasta or noodle base	1.2	0.6[β]	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.13. Food Sources of Vitamin E in National School Lunch Program Lunches as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Vitamin E			
1	Peanut butter sandwiches	13.9	6.4[β]	10.8
2	Salad dressings	10.4	11.4	10.8
3	Condiments, toppings and spreads	8.7	10.4[α]	9.4
4	Lettuce salads	6.5	6.9	6.7
5	Pizza and pizza products	3.8	5.0[β]	4.3
6	French fries/potato products	3.3	5.1[β]	4.0
7	Entree salads, entree salad bars	3.4	4.6	3.9
8	Entree food bars, bag/pre–plated lunches	3.8	3.3	3.6
9	Mexican–style entrees	3.1	2.7	3.0
10	Mixtures with pasta or noodle base	2.9	1.7[β]	2.4
11	Cookies, cakes, brownies	2.2	2.2	2.2
12	Peaches	2.0	2.4	2.2
13	Breaded/fried chicken products	2.1	1.9	2.0
14	Breaded/fried meat or poultry sandwich	1.3	2.6[β]	1.8
15	Hot dog, corn dog, sausage sandwiches	2.0	1.2[β]	1.7
16	Carrots	1.9	1.4[β]	1.7
17	Hamburgers/cheeseburgers	1.6	1.9	1.7
18	Sandwiches with plain meat or poultry	1.5	1.8	1.6
19	Fruit cocktail	1.6	1.6	1.6
20	Snack chips popcorn, potato chips	1.2	2.2	1.6
21	Broccoli	1.6	1.5	1.6
22	Mixed vegetables	1.4	1.4	1.4
23	Apple	1.2	1.5[α]	1.3
24	Rice/pasta	1.0	1.6[α]	1.2
25	Corn/tortilla chips	1.1	1.0	1.1
26	Citrus fruit	1.0	1.2	1.0
27	Bread, rolls, bagels	0.9	1.1	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

Sandwiches may have included cheese.

Lettuce salads includes side salad bars, which include an average serving of salad dressing.

Entree salad bars include an average serving of salad dressing.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.14. Food Sources of Vitamin B_6 in National School Lunch Program Lunches as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Vitamin B_6			
1	French fries/potato products	4.6	6.0$^{\beta}$	5.2
2	Sandwiches with plain meat or poultry	4.9	5.0	4.9
3	Entree salads, entree salad bars	4.4	5.5	4.9
4	Banana	4.7	4.7	4.7
5	1% milk, flavored	4.8	4.5	4.7
6	1% milk, unflavored	4.3	3.6$^{\beta}$	4.0
7	Peanut butter sandwiches	4.8	2.2$^{\beta}$	3.7
8	Condiments, toppings and spreads	3.6	3.9	3.7
9	Mexican–style entrees	3.3	3.0	3.2
10	Hamburgers/cheeseburgers	2.9	3.6$^{\alpha}$	3.2
11	Entree food bars, bag/pre–plated lunches	3.2	3.1	3.2
12	Pizza and pizza products	2.8	3.6$^{\beta}$	3.1
13	Fruit juice, 100%	2.8	2.8	2.8
14	Breaded/fried chicken products	2.9	2.5	2.7
15	White potatoes	2.6	2.7	2.6
16	Skim or nonfat milk, flavored	2.7	2.4	2.6
17	Lettuce salads	2.5	2.6	2.5
18	Skim or nonfat milk, unflavored	2.3	2.0$^{\alpha}$	2.2
19	Breaded/fried meat or poultry sandwich	1.5	2.9$^{\beta}$	2.1
20	Unbreaded poultry/meat/fish	2.2	1.7	2.0
21	Rice/pasta	1.7	2.0	1.8
22	Citrus fruit	1.6	1.9	1.8
23	2% milk, unflavored	1.7	1.8	1.8
24	Mixtures with pasta or noodle base	2.0	1.1$^{\beta}$	1.6
25	Bread, rolls, bagels	1.4	1.6	1.5
26	Carrots	1.7	1.2$^{\beta}$	1.5
27	Apple	1.4	1.7$^{\alpha}$	1.5
28	Mixed vegetables	1.3	1.3	1.3
29	Hot dog, corn dog, sausage sandwiches	1.4	1.1$^{\alpha}$	1.3
30	Corn	1.1	1.2	1.1
31	Legumes	1.1	1.0	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

Sandwiches may have included cheese.

Lettuce salads includes side salad bars, which include an average serving of salad dressing.

Entree salad bars include an average serving of salad dressing.

$^{\alpha}$ Difference between elementary and secondary schools is significantly different from zero at the .05 level.

$^{\beta}$ Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.15. Food Sources of Vitamin B_{12} in National School Lunch Program Lunches as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Vitamin B_{12}			
1	1% milk, unflavored	16.6	14.4$^{\beta}$	15.7
2	1% milk, flavored	14.9	14.1	14.5
3	Skim or nonfat milk, flavored	12.1	10.9	11.6
4	Skim or nonfat milk, unflavored	10.8	9.4	10.2
5	2% milk, unflavored	6.8	7.0	6.9
6	Hamburgers/cheeseburgers	4.8	6.5$^{\beta}$	5.5
7	Mexican–style entrees	3.7	3.7	3.7
8	Pizza and pizza products	2.9	4.0$^{\beta}$	3.4
9	Entree salads, entree salad bars	2.9	3.6	3.2
10	Sandwiches with plain meat or poultry	2.6	3.0	2.8
11	Entree food bars, bag/pre–plated lunches	2.5	2.1	2.3
12	Unbreaded poultry/meat/fish	1.9	1.7	1.8
13	Mixtures with pasta or noodle base	1.9	1.1$^{\beta}$	1.6
14	Hot dog, corn dog, sausage sandwiches	1.1	1.1	1.1
15	Soups	0.2	2.5	1.1
16	Condiments, toppings and spreads	0.9	1.2	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

Sandwiches may have included cheese.

Lettuce salads includes side salad bars, which include an average serving of salad dressing.

Entree salad bars include an average serving of salad dressing.

$^{\alpha}$ Difference between elementary and secondary schools is significantly different from zero at the .05 level.

$^{\beta}$ Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.16. Food Sources of Folate (DFE) in National School Lunch Program Lunches as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Folate (DFE)			
1	Pizza and pizza products	8.1	10.1[β]	8.9
2	Bread, rolls, bagels	8.2	9.6	8.8
3	Sandwiches with plain meat or poultry	5.4	5.5	5.5
4	Hamburgers/cheeseburgers	4.6	5.7[β]	5.0
5	Peanut butter sandwiches	5.9	2.6[β]	4.5
6	Rice/pasta	3.7	4.6	4.1
7	Entree salads, entree salad bars	3.5	4.3	3.9
8	Mexican–style entrees	3.9	3.3	3.7
9	Entree food bars, bag/pre–plated lunches	3.4	3.4	3.4
10	Lettuce salads	3.3	3.6	3.4
11	Breaded/fried meat or poultry sandwich	2.4	4.6[β]	3.3
12	Citrus fruit	2.7	3.2	2.9
13	Crackers and pretzels	3.1	2.2[α]	2.7
14	Cookies, cakes, brownies	2.7	2.5	2.6
15	1% milk, flavored	2.3	2.0	2.2
16	1% milk, unflavored	2.1	1.8[β]	2.0
17	Hot dog, corn dog, sausage sandwiches	2.1	1.6[α]	1.9
18	Legumes	2.1	1.7	1.9
19	Mixtures with pasta or noodle base	2.2	1.3[β]	1.8
20	Corn	1.7	1.6	1.7
21	Breaded/fried chicken products	1.7	1.4	1.6
22	Fruit juice, 100%	1.5	1.5	1.5
23	Skim or nonfat milk, flavored	1.4	1.2[α]	1.3
24	Broccoli	1.4	1.2	1.3
25	Skim or nonfat milk, unflavored	1.2	1.0[β]	1.1
26	Cheese sandwiches	1.3	0.6[β]	1.0
27	Condiments, toppings and spreads	1.0	1.0	1.0
28	Parfaits	0.9	1.1	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

Sandwiches may have included cheese.

Lettuce salads includes side salad bars, which include an average serving of salad dressing.

Entree salad bars include an average serving of salad dressing.

DFE = Dietary folate equivalents.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.17. Food Sources of Niacin in National School Lunch Program Lunches as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Niacin			
1	Peanut butter sandwiches	11.5	5.1[β]	8.9
2	Sandwiches with plain meat or poultry	7.3	7.6	7.4
3	Pizza and pizza products	6.1	7.9[β]	6.8
4	Hamburgers/cheeseburgers	6.1	7.6[β]	6.7
5	Bread, rolls, bagels	5.8	7.1	6.4
6	Breaded/fried chicken products	5.0	4.3	4.7
7	Entree salads, entree salad bars	3.9	5.3[α]	4.5
8	Breaded/fried meat or poultry sandwich	3.1	6.0[β]	4.3
9	Mexican–style entrees	4.4	4.0	4.2
10	Entree food bars, bag/pre–plated lunches	3.4	3.7	3.5
11	Unbreaded poultry/meat/fish	3.2	2.4[α]	2.9
12	Hot dog, corn dog, sausage sandwiches	2.6	2.1[α]	2.4
13	Condiments, toppings and spreads	2.4	2.4	2.4
14	French fries/potato products	2.0	2.5[β]	2.2
15	Mixtures with pasta or noodle base	2.6	1.5[β]	2.2
16	Rice/pasta	2.0	2.3	2.1
17	Crackers and pretzels	1.9	1.4	1.7
18	Cookies, cakes, brownies	1.7	1.7	1.7
19	Lettuce salads	1.4	1.6	1.5
20	Sandwich with mayonnaise–based poultry, tuna or eggs	1.3	1.7	1.5
21	Mixtures with meat/grain/vegetables	1.2	1.6[α]	1.4
22	1% milk, flavored	1.2	1.1	1.2
23	Peaches	1.0	1.2	1.1
24	White potatoes	1.0	1.1	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

Sandwiches may have included cheese.

Lettuce salads includes side salad bars, which include an average serving of salad dressing.

Entree salad bars include an average serving of salad dressing.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.18. Food Sources of Riboflavin in National School Lunch Program Lunches as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Riboflavin			
1	1% milk, flavored	13.5	13.1	13.4
2	1% milk, unflavored	13.5	12.0[β]	12.9
3	Skim or nonfat milk, flavored	8.5	7.8	8.2
4	Skim or nonfat milk, unflavored	7.2	6.4	6.9
5	2% milk, unflavored	5.3	5.6	5.4
6	Pizza and pizza products	4.9	6.3[β]	5.4
7	Sandwiches with plain meat or poultry	4.1	4.4	4.2
8	Bread, rolls, bagels	3.1	3.9[α]	3.4
9	Hamburgers/cheeseburgers	2.6	3.5[β]	3.0
10	Entree salads, entree salad bars	2.6	3.2	2.8
11	Entree food bars, bag/pre–plated lunches	2.8	2.4	2.6
12	Mexican–style entrees	2.4	2.2	2.3
13	Peanut butter sandwiches	2.1	1.0[β]	1.6
14	Breaded/fried meat or poultry sandwich	1.1	2.2[β]	1.5
15	Condiments, toppings and spreads	1.5	1.6	1.5
16	Cookies, cakes, brownies	1.3	1.3	1.3
17	Mixtures with pasta or noodle base	1.4	0.9[β]	1.2
18	Lettuce salads	1.1	1.3	1.2
19	Hot dog, corn dog, sausage sandwiches	1.2	1.0	1.1
20	Breaded/fried chicken products	1.1	1.0	1.0
21	Crackers and pretzels	1.1	0.9	1.0
22	Cheese sandwiches	1.3	0.6[β]	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

Sandwiches may have included cheese.

Lettuce salads includes side salad bars, which include an average serving of salad dressing.

Entree salad bars include an average serving of salad dressing.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.19. Food Sources of Thiamin in National School Lunch Program Lunches as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Thiamin			
1	Sandwiches with plain meat or poultry	7.9	8.0	7.9
2	Pizza and pizza products	6.9	8.7[β]	7.7
3	Bread, rolls, bagels	7.0	8.4	7.6
4	Hamburgers/cheeseburgers	4.7	5.6[α]	5.1
5	1% milk, flavored	4.1	3.8	4.0
6	Mexican–style entrees	3.8	3.4	3.6
7	Entree salads, entree salad bars	3.3	3.9	3.6
8	Entree food bars, bag/pre–plated lunches	3.4	3.5	3.4
9	Skim or nonfat milk, flavored	3.5	3.0[α]	3.3
10	Breaded/fried meat or poultry sandwich	2.2	4.2[β]	3.0
11	Peanut butter sandwiches	3.8	1.7[β]	2.9
12	Skim or nonfat milk, unflavored	3.0	2.5[β]	2.8
13	Rice/pasta	2.5	3.0	2.7
14	Citrus fruit	2.4	2.8	2.6
15	1% milk, unflavored	2.5	2.0[β]	2.3
16	Lettuce salads	2.0	2.4	2.2
17	French fries/potato products	2.0	2.4[α]	2.1
18	Cookies, cakes, brownies	2.2	2.1	2.1
19	Hot dog, corn dog, sausage sandwiches	2.3	1.8[α]	2.1
20	Fruit juice, 100%	1.9	1.8	1.9
21	2% milk, unflavored	1.9	1.8	1.9
22	Mixtures with pasta or noodle base	2.1	1.2[β]	1.7
23	Breaded/fried chicken products	1.8	1.5	1.7
24	Condiments, toppings and spreads	1.6	1.6	1.6
25	Unbreaded poultry/meat/fish	1.6	1.3	1.4
26	Crackers and pretzels	1.3	0.9	1.1
27	Pineapple	1.1	1.0	1.1
28	Legumes	1.1	0.9	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

Sandwiches may have included cheese.

Lettuce salads includes side salad bars, which include an average serving of salad dressing.

Entree salad bars include an average serving of salad dressing.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.20. Food Sources of Calcium in National School Lunch Program Lunches as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Calcium			
1	1% milk, flavored	15.0	14.9	14.9
2	1% milk, unflavored	14.6	13.3[α]	14.1
3	Skim or nonfat milk, flavored	9.4	8.8	9.2
4	Skim or nonfat milk, unflavored	8.3	7.5	8.0
5	Pizza and pizza products	6.3	7.8[β]	6.9
6	2% milk, unflavored	5.6	6.1	5.8
7	Sandwiches with plain meat or poultry	4.1	4.2	4.1
8	Entree salads, entree salad bars	3.7	4.1	3.8
9	Mexican–style entrees	3.0	2.8	2.9
10	Entree food bars, bag/pre–plated lunches	3.1	2.4	2.8
11	Hamburgers/cheeseburgers	1.9	2.7[β]	2.3
12	Bread, rolls, bagels	2.0	2.4	2.1
13	Cheese sandwiches	2.4	1.3[β]	2.0
14	Condiments, toppings and spreads	1.6	1.8	1.6
15	Citrus fruit	1.0	1.3[α]	1.2
16	Peanut butter sandwiches	1.4	0.7[β]	1.1
17	Lettuce salads	1.0	1.2	1.1
18	Breaded/fried meat or poultry sandwich	0.7	1.5[β]	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

Sandwiches may have included cheese.

Lettuce salads includes side salad bars, which include an average serving of salad dressing.

Entree salad bars include an average serving of salad dressing.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.21. Food Sources of Iron in National School Lunch Program Lunches as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Iron			
1	Pizza and pizza products	7.8	9.7[β]	8.6
2	Bread, rolls, bagels	6.8	8.3	7.4
3	Sandwiches with plain meat or poultry	6.5	6.6	6.6
4	Hamburgers/cheeseburgers	5.8	7.4[β]	6.5
5	Mexican–style entrees	4.8	4.1	4.5
6	Peanut butter sandwiches	5.1	2.3[β]	3.9
7	Entree salads, entree salad bars	3.1	4.0[α]	3.4
8	Entree food bars, bag/pre–plated lunches	3.4	3.6	3.4
9	Breaded/fried meat or poultry sandwich	2.4	4.5[β]	3.3
10	Cookies, cakes, brownies	3.0	2.9	3.0
11	1% milk, flavored	2.8	2.6	2.7
12	Rice/pasta	2.3	2.8	2.5
13	Crackers and pretzels	2.8	2.0	2.5
14	Mixtures with pasta or noodle base	2.8	1.6[β]	2.3
15	Lettuce salads	2.2	2.3	2.3
16	Legumes	2.4	2.0	2.2
17	Skim or nonfat milk, flavored	2.4	2.0[α]	2.2
18	Condiments, toppings and spreads	2.1	2.2	2.1
19	Fruit juice, 100%	2.2	2.0	2.1
20	Hot dog, corn dog, sausage sandwiches	2.4	1.8[α]	2.1
21	Breaded/fried chicken products	2.2	1.8	2.0
22	Unbreaded poultry/meat/fish	1.6	1.1[β]	1.4
23	Cheese sandwiches	1.5	0.7[β]	1.2
24	French fries/potato products	1.0	1.3[β]	1.1
25	White potatoes	1.0	1.0	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

Sandwiches may have included cheese.

Lettuce salads includes side salad bars, which include an average serving of salad dressing.

Entree salad bars include an average serving of salad dressing.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.22. Food Sources of Magnesium in National School Lunch Program Lunches as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Magnesium			
1	1% milk, flavored	7.8	7.7	7.8
2	Skim or nonfat milk, flavored	6.6	6.1	6.4
3	1% milk, unflavored	6.6	6.0[α]	6.4
4	Peanut butter sandwiches	7.7	3.7[β]	6.1
5	Pizza and pizza products	4.2	5.3[β]	4.7
6	Mexican–style entrees	3.7	3.5	3.6
7	Sandwiches with plain meat or poultry	3.4	3.6	3.5
8	Skim or nonfat milk, unflavored	3.6	3.2	3.4
9	Entree salads, entree salad bars	2.9	3.6	3.2
10	Entree food bars, bag/pre–plated lunches	3.0	2.8	2.9
11	Bread, rolls, bagels	2.7	3.3	2.9
12	Hamburgers/cheeseburgers	2.5	3.4[β]	2.9
13	Condiments, toppings and spreads	2.6	2.9	2.7
14	2% milk, unflavored	2.6	2.8	2.7
15	French fries/potato products	1.9	2.6[β]	2.2
16	Lettuce salads	2.1	2.3	2.2
17	Legumes	2.1	1.9	2.0
18	Fruit juice, 100%	1.8	2.0	1.9
19	Banana	1.8	1.9	1.9
20	Rice/pasta	1.7	1.8	1.8
21	Citrus fruit	1.4	1.8[α]	1.6
22	Breaded/fried meat or poultry sandwich	1.1	2.2[β]	1.6
23	Mixtures with pasta or noodle base	1.8	1.1[β]	1.5
24	Cookies, cakes, brownies	1.3	1.4	1.3
25	Corn	1.3	1.4	1.3
26	Breaded/fried chicken products	1.3	1.2	1.2
27	White potatoes	1.1	1.3	1.2
28	Hot dog, corn dog, sausage sandwiches	1.1	0.8[α]	1.0
29	Apple	0.9	1.1[β]	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

Sandwiches may have included cheese.

Lettuce salads includes side salad bars, which include an average serving of salad dressing.

Entree salad bars include an average serving of salad dressing.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.23. Food Sources of Phosphorus in National School Lunch Program Lunches as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Phosphorus			
1	1% milk, flavored	11.9	11.7	11.8
2	1% milk, unflavored	10.7	9.6[α]	10.3
3	Skim or nonfat milk, flavored	7.6	7.1	7.4
4	Pizza and pizza products	6.0	7.6[β]	6.6
5	Skim or nonfat milk, unflavored	6.1	5.5	5.9
6	Sandwiches with plain meat or poultry	4.9	5.3	5.0
7	Entree salads, entree salad bars	4.2	5.0	4.5
8	2% milk, unflavored	4.2	4.4	4.3
9	Mexican–style entrees	3.5	3.3	3.4
10	Hamburgers/cheeseburgers	2.7	3.7[β]	3.1
11	Entree food bars, bag/pre–plated lunches	3.1	2.8	3.0
12	Peanut butter sandwiches	3.6	1.7[β]	2.9
13	Bread, rolls, bagels	1.6	2.0	1.8
14	Condiments, toppings and spreads	1.7	1.9	1.8
15	Cheese sandwiches	2.0	1.0[β]	1.6
16	Breaded/fried meat or poultry sandwich	1.0	2.1[β]	1.5
17	Breaded/fried chicken products	1.5	1.3	1.4
18	Mixtures with pasta or noodle base	1.6	1.0[β]	1.4
19	Lettuce salads	1.1	1.4	1.2
20	Rice/pasta	1.1	1.3	1.2
21	Unbreaded poultry/meat/fish	1.2	0.9[α]	1.1
22	Cookies, cakes, brownies	1.1	1.1	1.1
23	Hot dog, corn dog, sausage sandwiches	1.1	0.9[α]	1.0
24	Legumes	1.0	0.9	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

Sandwiches may have included cheese.

Lettuce salads includes side salad bars, which include an average serving of salad dressing.

Entree salad bars include an average serving of salad dressing.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.24. Food Sources of Potassium in National School Lunch Program Lunches as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Potassium			
1	1% milk, flavored	9.7	9.4	9.6
2	1% milk, unflavored	8.5	7.5[β]	8.1
3	Skim or nonfat milk, flavored	6.6	6.0	6.4
4	Skim or nonfat milk, unflavored	4.8	4.2	4.5
5	Entree salads, entree salad bars	3.6	4.4	3.9
6	2% milk, unflavored	3.3	3.5	3.4
7	Fruit juice, 100%	3.3	3.4	3.3
8	French fries/potato products	2.9	3.8[β]	3.3
9	Condiments, toppings and spreads	3.2	3.3	3.2
10	Pizza and pizza products	2.8	3.5[β]	3.1
11	Lettuce salads	2.7	3.0	2.8
12	Entree food bars, bag/pre–plated lunches	2.8	2.5	2.7
13	Sandwiches with plain meat or poultry	2.4	2.7	2.5
14	Citrus fruit	2.3	2.8[α]	2.5
15	Peanut butter sandwiches	3.1	1.5[β]	2.5
16	Banana	2.3	2.3	2.3
17	Hamburgers/cheeseburgers	2.0	2.6[β]	2.2
18	White potatoes	2.2	2.3	2.2
19	Mexican–style entrees	2.1	1.9	2.0
20	Apple	1.7	2.2[α]	1.9
21	Legumes	1.6	1.5	1.6
22	Mixtures with pasta or noodle base	1.8	1.1[β]	1.5
23	Carrots	1.7	1.2[β]	1.5
24	Bread, rolls, bagels	1.0	1.2	1.1
25	Mixed vegetables	1.1	1.1	1.1
26	Peaches	1.0	1.2	1.1
27	Corn	1.0	1.1	1.0
28	Pears	0.9	1.1	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

Sandwiches may have included cheese.

Lettuce salads includes side salad bars, which include an average serving of salad dressing.

Entree salad bars include an average serving of salad dressing.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.25. Food Sources of Sodium in National School Lunch Program Lunches as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Sodium			
1	Condiments, toppings and spreads	9.3	9.3	9.3
2	Salad dressings	7.3	7.6	7.4
3	Sandwiches with plain meat or poultry	6.8	7.0	6.9
4	Pizza and pizza products	6.2	7.8[β]	6.8
5	Hamburgers/cheeseburgers	4.6	5.4[α]	4.9
6	Entree salads, entree salad bars	3.5	4.5	3.9
7	Lettuce salads	3.8	3.8	3.8
8	Mexican–style entrees	3.8	3.1[α]	3.5
9	Bread, rolls, bagels	3.2	4.0	3.5
10	Entree food bars, bag/pre–plated lunches	3.2	3.5	3.4
11	Mixtures with pasta or noodle base	3.4	2.0[β]	2.9
12	1% milk, flavored	2.7	2.5	2.7
13	Breaded/fried chicken products	2.7	2.3	2.6
14	Peanut butter sandwiches	3.2	1.5[β]	2.5
15	Breaded/fried meat or poultry sandwich	1.8	3.5[β]	2.5
16	Hot dog, corn dog, sausage sandwiches	2.7	2.1[α]	2.5
17	French fries/potato products	2.2	2.8[β]	2.4
18	Rice/pasta	2.2	2.7	2.4
19	1% milk, unflavored	2.1	1.7[β]	1.9
20	Cheese sandwiches	2.0	0.9[β]	1.5
21	Cookies, cakes, brownies	1.5	1.3	1.5
22	Crackers and pretzels	1.5	1.2	1.4
23	Unbreaded poultry/meat/fish	1.5	1.1	1.4
24	Legumes	1.4	1.2	1.3
25	Corn	1.3	1.2	1.3
26	Skim or nonfat milk, flavored	1.2	1.0	1.1
27	White potatoes	1.1	1.1	1.1
28	Mixed vegetables	1.0	1.0	1.0
29	Skim or nonfat milk, unflavored	1.1	0.9[α]	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

Sandwiches may have included cheese.

Lettuce salads includes side salad bars, which include an average serving of salad dressing.

Entree salad bars include an average serving of salad dressing.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.26. Food Sources of Zinc in National School Lunch Program Lunches as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Zinc			
1	1% milk, flavored	7.3	7.1	7.2
2	Hamburgers/cheeseburgers	6.3	8.5[β]	7.2
3	1% milk, unflavored	7.1	6.2[β]	6.7
4	Sandwiches with plain meat or poultry	6.1	6.6	6.3
5	Pizza and pizza products	5.4	6.9[β]	6.0
6	Mexican–style entrees	5.7	5.4	5.6
7	Skim or nonfat milk, flavored	5.2	4.8	5.0
8	Entree salads, entree salad bars	4.5	5.3	4.8
9	Skim or nonfat milk, unflavored	3.8	3.4	3.6
10	Peanut butter sandwiches	4.3	2.0[β]	3.4
11	Entree food bars, bag/pre–plated lunches	3.2	3.2	3.2
12	2% milk, unflavored	2.8	3.0	2.9
13	Legumes	2.9	2.6	2.8
14	Unbreaded poultry/meat/fish	2.8	2.3	2.6
15	Mixtures with pasta or noodle base	3.0	1.8[β]	2.5
16	Bread, rolls, bagels	2.2	2.8	2.4
17	Condiments, toppings and spreads	2.1	2.2	2.2
18	Breaded/fried meat or poultry sandwich	1.3	2.5[β]	1.7
19	Hot dog, corn dog, sausage sandwiches	1.7	1.4	1.6
20	Breaded/fried chicken products	1.7	1.4	1.6
21	Rice/pasta	1.4	1.6	1.5
22	Cheese sandwiches	1.7	0.9[β]	1.4
23	Lettuce salads	1.3	1.5	1.4

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

Sandwiches may have included cheese.

Lettuce salads includes side salad bars, which include an average serving of salad dressing.

Entree salad bars include an average serving of salad dressing.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.27. Food Sources of Cholesterol in National School Lunch Program Lunches as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Cholesterol			
1	Entree salads, entree salad bars	11.5	13.0	12.1
2	Sandwiches with plain meat or poultry	10.1	10.1	10.1
3	Hamburgers/cheeseburgers	6.5	8.1[β]	7.1
4	Mexican–style entrees	6.4	5.6	6.0
5	1% milk, unflavored	5.8	4.8[β]	5.4
6	Pizza and pizza products	4.6	6.2[β]	5.3
7	Breaded/fried chicken products	5.5	4.5	5.1
8	1% milk, flavored	4.5	4.1	4.3
9	Unbreaded poultry/meat/fish	4.4	3.6	4.1
10	2% milk, unflavored	3.6	3.6	3.6
11	Entree food bars, bag/pre–plated lunches	3.2	3.4	3.3
12	Hot dog, corn dog, sausage sandwiches	3.5	2.6[α]	3.1
13	Breaded/fried meat or poultry sandwich	2.3	4.3[β]	3.1
14	Mixtures with pasta or noodle base	3.5	2.0[β]	2.9
15	Condiments, toppings and spreads	2.5	2.9	2.7
16	Cookies, cakes, brownies	2.4	1.9	2.2
17	Cheese sandwiches	2.4	1.1[β]	1.9
18	Mixtures with meat/grain/vegetables	1.4	2.0[α]	1.6
19	Skim or nonfat milk, flavored	1.4	1.2	1.3
20	Breaded/fried beef/pork/fish	1.4	1.0	1.2
21	Skim or nonfat milk, unflavored	1.3	1.1[α]	1.2
22	Sandwich with mayonnaise–based poultry, tuna or eggs	0.7	1.6[β]	1.1
23	Sausages, hot dogs, cold cuts	1.2	0.7[α]	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

Sandwiches may have included cheese.

Lettuce salads includes side salad bars, which include an average serving of salad dressing.

Entree salad bars include an average serving of salad dressing.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.28. Food Sources of Dietary Fiber in National School Lunch Program Lunches as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Dietary Fiber			
1	Apple	6.1	7.4[α]	6.6
2	Citrus fruit	4.6	5.5	4.9
3	Peanut butter sandwiches	5.9	2.7[β]	4.6
4	Pizza and pizza products	4.1	5.0[β]	4.5
5	Lettuce salads	3.9	4.0	4.0
6	Bread, rolls, bagels	3.6	4.2	3.9
7	Pears	3.5	4.2	3.8
8	Legumes	3.8	3.2	3.5
9	Entree salads, entree salad bars	3.1	3.9	3.5
10	Entree food bars, bag/pre–plated lunches	3.2	2.9	3.1
11	Mexican–style entrees	3.3	2.8	3.1
12	1% milk, flavored	3.0	2.9	3.0
13	Sandwiches with plain meat or poultry	2.7	2.6	2.7
14	French fries/potato products	2.3	3.1[β]	2.6
15	Banana	2.6	2.5	2.5
16	Skim or nonfat milk, flavored	2.4	2.0[α]	2.2
17	Hamburgers/cheeseburgers	2.1	2.5[α]	2.2
18	Condiments, toppings and spreads	2.2	2.3	2.2
19	Carrots	2.5	1.8[β]	2.2
20	Mixed vegetables	2.2	2.2	2.2
21	Peaches	2.0	2.3	2.1
22	Corn	2.0	1.9	1.9
23	Rice/pasta	1.9	1.8	1.9
24	Mixtures with pasta or noodle base	2.1	1.2[β]	1.7
25	Cookies, cakes, brownies	1.6	1.6	1.6
26	Breaded/fried meat or poultry sandwich	1.2	2.2[β]	1.6
27	Applesauce	1.6	1.4	1.5
28	String beans	1.6	1.5	1.5
29	Peas	1.3	1.5	1.4
30	Fruit cocktail	1.4	1.3	1.4
31	White potatoes	1.3	1.4	1.4
32	Broccoli	1.3	1.2	1.3

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

Sandwiches may have included cheese.

Lettuce salads includes side salad bars, which include an average serving of salad dressing.

Entree salad bars include an average serving of salad dressing.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.29. Food Sources of Calories from Solid Fats and Added Sugars in National School Lunch Program Lunches as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Calories from Solid Fats and Added Sugars			
1	1% milk, flavored	10.1	9.8	10.0
2	Cookies, cakes, brownies	8.0	7.4	7.8
3	Pizza and pizza products	5.7	7.5[β]	6.4
4	Condiments, toppings and spreads	5.6	5.4	5.5
5	Skim or nonfat milk, flavored	5.0	4.6	4.9
6	Hamburgers/cheeseburgers	3.7	5.0[β]	4.2
7	Entree salads, entree salad bars	3.9	4.4	4.1
8	Sandwiches with plain meat or poultry	4.0	4.1	4.0
9	Mexican–style entrees	3.9	3.5	3.7
10	Entree food bars, bag/pre–plated lunches	3.5	3.1	3.4
11	1% milk, unflavored	2.8	2.5[α]	2.7
12	Peanut butter sandwiches	3.2	1.5[β]	2.5
13	Hot dog/corn dog	2.7	2.3	2.5
14	2% milk, unflavored	2.3	2.5	2.4
15	Breaded/fried meat or poultry sandwich	1.5	3.1[β]	2.2
16	Breaded/fried chicken products	2.2	2.0	2.1
17	Cheese sandwiches	2.5	1.3[β]	2.1
18	Bread, rolls, bagels	1.7	2.2[α]	1.9
19	Crackers and pretzels	2.1	1.5	1.9
20	Salad dressings	1.6	1.9	1.7
21	Peaches	1.4	1.8[α]	1.6
22	Mixtures with pasta or noodle base	1.9	1.2[β]	1.6
23	Lettuce salads	1.3	1.6	1.4
24	Fruit–based desserts	1.3	1.4	1.3
25	Dairy–based desserts	1.2	1.4	1.3
26	French fries/potato products	1.0	1.5[α]	1.2
27	Yogurt	1.5	0.3[β]	1.0
28	Unbreaded poultry/meat/fish	1.1	0.7[α]	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research, Inc. are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

Sandwiches may have included cheese.

Lettuce salads includes side salad bars, which include an average serving of salad dressing.

Entree salad bars include an average serving of salad dressing.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.30. Food Sources of Solid Fats in National School Lunch Program Lunches as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Solid Fats			
1	Pizza and pizza products	8.1	10.5$^{\beta}$	9.1
2	Cookies, cakes, brownies	6.5	5.7	6.2
3	Entree salads, entree salad bars	5.8	6.4	6.1
4	Mexican–style entrees	6.3	5.5	6.0
5	Hamburgers/cheeseburgers	5.1	6.7$^{\beta}$	5.7
6	Sandwiches with plain meat or poultry	5.7	5.6	5.7
7	1% milk, flavored	5.1	4.8	5.0
8	Condiments, toppings and spreads	4.8	4.9	4.8
9	1% milk, unflavored	4.6	3.9$^{\beta}$	4.3
10	2% milk, unflavored	3.8	3.9	3.9
11	Entree food bars, bag/pre–plated lunches	3.7	3.5	3.6
12	Breaded/fried chicken products	3.6	3.1	3.4
13	Hot dog/corn dog	3.5	3.1	3.4
14	Cheese sandwiches	3.9	2.0$^{\beta}$	3.1
15	Breaded/fried meat or poultry sandwich	2.2	4.4$^{\beta}$	3.1
16	Mixtures with pasta or noodle base	2.9	1.8$^{\beta}$	2.4
17	Crackers and pretzels	2.6	1.9	2.3
18	Bread, rolls, bagels	1.5	2.0	1.7
19	French fries/potato products	1.4	2.1$^{\alpha}$	1.7
20	Unbreaded poultry/meat/fish	1.6	1.1$^{\alpha}$	1.4
21	Rice/pasta	1.2	1.4	1.3
22	Peanut butter sandwiches	1.6	0.7$^{\beta}$	1.2
23	Mixtures with meat/grain/vegetables	0.9	1.1	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research, Inc. are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

Sandwiches may have included cheese.

Lettuce salads includes side salad bars, which include an average serving of salad dressing.

Entree salad bars include an average serving of salad dressing.

$^{\alpha}$ Difference between elementary and secondary schools is significantly different from zero at the .05 level.

$^{\beta}$ Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.31. Food Sources of Added Sugars in National School Lunch Program Lunches as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Added Sugars			
1	1% milk, flavored	18.1	18.4	18.2
2	Skim or nonfat milk, flavored	12.1	11.6	11.9
3	Cookies, cakes, brownies	10.3	10.2	10.3
4	Condiments, toppings and spreads	6.9	6.2	6.7
5	Peanut butter sandwiches	5.9	2.9[β]	4.7
6	Peaches	3.7	4.9[β]	4.2
7	Fruit–based desserts	3.3	3.5	3.4
8	Salad dressings	2.7	3.5[β]	3.0
9	Entree food bars, bag/pre–plated lunches	3.2	2.4	2.9
10	Lettuce salads	2.2	2.6	2.3
11	Dairy–based desserts	2.1	2.7	2.3
12	Bread, rolls, bagels	2.1	2.6	2.3
13	Yogurt	3.1	0.8[β]	2.2
14	Pizza and pizza products	2.0	2.3[α]	2.1
15	Fruit cocktail	2.0	2.1	2.1
16	Pears	1.8	2.2	2.0
17	Hamburgers/cheeseburgers	1.6	2.1[β]	1.8
18	Berries	1.6	1.1	1.4
19	Other desserts	1.4	1.4	1.4
20	Juice drinks not 100% juice	0.8	2.2	1.3
21	Sandwiches with plain meat or poultry	1.2	1.4	1.3
22	Hot dog/corn dog	1.3	0.9[β]	1.2
23	Crackers and pretzels	1.3	0.8	1.1

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research, Inc. are weighted to be representative of all public schools offering the National School Lunch Program.

Notes: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

Sandwiches may have included cheese.

Lettuce salads includes side salad bars, which include an average serving of salad dressing.

Entree salad bars include an average serving of salad dressing.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.32. Food Sources of Calories in School Breakfast Program Breakfasts as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Calories			
1	Cold cereal	10.7	8.1$^{\beta}$	9.6
2	Fruit juice, 100%	9.1	8.5	8.8
3	1% milk, flavored	7.7	7.9	7.8
4	Sweet rolls, donuts, toaster pastries	5.8	10.3$^{\beta}$	7.7
5	1% milk, unflavored	7.9	5.7$^{\beta}$	7.0
6	Condiments, toppings and spreads	5.5	6.6$^{\alpha}$	6.0
7	Muffins, sweet/quick breads	4.9	4.7	4.9
8	Breakfast sandwiches[a]	3.3	4.9$^{\beta}$	3.9
9	Skim or nonfat milk, flavored	3.7	4.2	3.9
10	2% milk, unflavored	3.7	3.6	3.7
11	Pancakes, waffles, French toast	3.7	2.8$^{\beta}$	3.3
12	Bread, rolls, bagels	2.4	3.5$^{\beta}$	2.9
13	Skim or nonfat milk, unflavored	2.8	2.1$^{\beta}$	2.5
14	Buttered toast/bagels with cream cheese	2.5	2.3	2.4
15	Crackers and pretzels	2.8	1.3$^{\beta}$	2.2
16	Yogurt	2.1	2.1	2.1
17	Pizza and pizza products	1.7	2.2$^{\alpha}$	1.9
18	Grain/fruit cereal bars, granola bars	2.2	1.5	1.9
19	Biscuits, croissants, cornbread	1.7	1.7	1.7
20	Mexican–style entrees	1.6	1.4	1.5
21	Sausages, hot dogs, cold cuts	1.3	1.4	1.3
22	Hot dog, corn dog, sausage sandwiches[b]	1.3	1.1	1.2
23	Apple	0.9	1.2$^{\alpha}$	1.0
24	Peanut butter sandwiches	0.9	1.0	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

[a] Includes sandwiches with egg, cheese, sausage or ham, or other types of meat on a biscuit, English muffin, bagel, or croissant.

[b] Includes sausage wrapped in a pancake.

$^{\alpha}$ Difference between elementary and secondary schools is significantly different from zero at the .05 level.

$^{\beta}$ Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.33. Food Sources of Total Fat in School Breakfast Program Breakfasts as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Total Fat			
1	Sweet rolls, donuts, toaster pastries	9.6	15.8$^{\beta}$	12.3
2	Breakfast sandwiches[a]	6.9	9.6$^{\beta}$	8.1
3	Muffins, sweet/quick breads	7.9	7.2	7.6
4	1% milk, unflavored	7.3	4.9$^{\beta}$	6.3
5	Condiments, toppings and spreads	5.3	7.4$^{\alpha}$	6.2
6	2% milk, unflavored	5.9	5.3	5.6
7	1% milk, flavored	4.5	4.4	4.5
8	Cold cereal	4.9	3.3$^{\alpha}$	4.2
9	Sausages, hot dogs, cold cuts	4.3	4.2	4.2
10	Pancakes, waffles, French toast	4.7	3.3$^{\beta}$	4.1
11	Buttered toast/bagels with cream cheese	3.9	3.3	3.6
12	Pizza and pizza products	2.8	3.6	3.2
13	Biscuits, croissants, cornbread	2.9	2.7	2.8
14	Mexican–style entrees	2.9	2.2	2.6
15	Crackers and pretzels	3.2	1.4$^{\beta}$	2.5
16	Hot dog, corn dog, sausage sandwiches[b]	2.6	1.9	2.3
17	Peanut butter sandwiches	2.0	2.2	2.1
18	Grain/fruit cereal bars, granola bars	2.3	1.6	2.0
19	Eggs	2.2	1.6$^{\alpha}$	1.9
20	Cheese	2.2	1.1$^{\alpha}$	1.7
21	Yogurt	1.1	0.9	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

[a] Includes sandwiches with egg, cheese, sausage or ham, or other types of meat on a biscuit, English muffin, bagel, or croissant.

[b] Includes sausage wrapped in a pancake.

$^{\alpha}$ Difference between elementary and secondary schools is significantly different from zero at the .05 level.

$^{\beta}$ Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.34. Food Sources of Saturated Fat in School Breakfast Program Breakfasts as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Saturated Fat			
1	1% milk, unflavored	13.0	9.1[β]	11.3
2	2% milk, unflavored	10.2	9.6	10.0
3	Sweet rolls, donuts, toaster pastries	6.2	11.0[β]	8.2
4	Breakfast sandwiches[a]	6.7	9.5[β]	7.9
5	1% milk, flavored	7.7	7.8	7.7
6	Condiments, toppings and spreads	5.8	9.0[β]	7.1
7	Muffins, sweet/quick breads	4.5	4.5	4.5
8	Grain/fruit cereal bars, granola bars	4.2	3.1	3.8
9	Sausages, hot dogs, cold cuts	3.7	3.6	3.6
10	Pizza and pizza products	2.9	3.8[α]	3.3
11	Cheese	3.8	2.0[α]	3.0
12	Mexican–style entrees	3.0	2.3	2.7
13	Buttered toast/bagels with cream cheese	3.0	2.3	2.7
14	Pancakes, waffles, French toast	2.9	2.1[β]	2.6
15	Biscuits, croissants, cornbread	2.0	2.0	2.0
16	Hot dog, corn dog, sausage sandwiches[b]	2.0	1.5	1.8
17	Yogurt	2.0	1.6	1.8
18	Eggs	2.0	1.5[α]	1.8
19	Cold cereal	2.1	1.3[α]	1.8
20	Crackers and pretzels	1.7	0.7[β]	1.3
21	Cheese sandwiches	1.5	0.9	1.2
22	Skim or nonfat milk, flavored	1.1	1.2	1.1
23	Peanut butter sandwiches	1.1	1.2	1.1

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

[a] Includes sandwiches with egg, cheese, sausage or ham, or other types of meat on a biscuit, English muffin, bagel, or croissant.

[b] Includes sausage wrapped in a pancake.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.35. Food Sources of Monounsaturated Fat in School Breakfast Program Breakfasts as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Monounsaturated Fat			
1	Sweet rolls, donuts, toaster pastries	11.9	20.3$^{\beta}$	15.5
2	Breakfast sandwiches[a]	8.0	10.6$^{\alpha}$	9.1
3	Condiments, toppings and spreads	5.4	6.9	6.0
4	Muffins, sweet/quick breads	6.0	5.4	5.7
5	1% milk, unflavored	5.8	3.8$^{\beta}$	4.9
6	Sausages, hot dogs, cold cuts	5.0	4.6	4.8
7	Pancakes, waffles, French toast	5.5	3.9$^{\beta}$	4.8
8	2% milk, unflavored	4.7	4.1	4.4
9	Cold cereal	5.0	3.2$^{\alpha}$	4.3
10	Biscuits, croissants, cornbread	4.4	3.9	4.1
11	1% milk, flavored	3.7	3.5	3.6
12	Pizza and pizza products	2.9	3.6	3.2
13	Buttered toast/bagels with cream cheese	3.2	2.7	3.0
14	Crackers and pretzels	4.0	1.7$^{\beta}$	3.0
15	Peanut butter sandwiches	2.7	2.8	2.7
16	Mexican–style entrees	2.9	2.2	2.6
17	Hot dog, corn dog, sausage sandwiches[b]	2.5	1.8$^{\alpha}$	2.2
18	Eggs	2.3	1.6$^{\beta}$	2.0
19	Cheese	1.7	0.9$^{\alpha}$	1.4
20	Grain/fruit cereal bars, granola bars	1.4	0.8$^{\alpha}$	1.1

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

[a] Includes sandwiches with egg, cheese, sausage or ham, or other types of meat on a biscuit, English muffin, bagel, or croissant.

[b] Includes sausage wrapped in a pancake.

$^{\alpha}$ Difference between elementary and secondary schools is significantly different from zero at the .05 level.

$^{\beta}$ Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.36. Food Sources of Polyunsaturated Fat in School Breakfast Program Breakfasts as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Polyunsaturated Fat			
1	Muffins, sweet/quick breads	18.5	16.9	17.8
2	Sweet rolls, donuts, toaster pastries	13.0	18.1$^{\beta}$	15.2
3	Cold cereal	7.6	5.0$^{\alpha}$	6.5
4	Buttered toast/bagels with cream cheese	6.6	6.2	6.4
5	Condiments, toppings and spreads	4.9	6.8	5.7
6	Breakfast sandwiches[a]	4.8	6.6$^{\alpha}$	5.6
7	Pancakes, waffles, French toast	5.8	3.7$^{\beta}$	4.9
8	Crackers and pretzels	4.8	2.3$^{\beta}$	3.8
9	Hot dog, corn dog, sausage sandwiches[b]	3.9	3.0	3.5
10	Sausages, hot dogs, cold cuts	3.0	3.4	3.2
11	Peanut butter sandwiches	2.8	3.1	2.9
12	Pizza and pizza products	2.6	3.4	2.9
13	Mexican–style entrees	2.3	2.0	2.2
14	Bread, rolls, bagels	1.7	2.1	1.9
15	Biscuits, croissants, cornbread	1.6	1.6	1.6
16	Peanut butter/nuts/seeds/trail mixes	1.7	1.3	1.5
17	Eggs	1.7	1.3	1.5
18	Hot cereal	1.4	1.0	1.2
19	Fruit juice, 100%	1.2	1.1$^{\alpha}$	1.2
20	1% milk, unflavored	1.3	0.9$^{\beta}$	1.2
21	2% milk, unflavored	1.1	1.0	1.1

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

[a] Includes sandwiches with egg, cheese, sausage or ham, or other types of meat on a biscuit, English muffin, bagel, or croissant.

[b] Includes sausage wrapped in a pancake.

$^{\alpha}$ Difference between elementary and secondary schools is significantly different from zero at the .05 level.

$^{\beta}$ Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.37. Food Sources of Linoleic Acid in School Breakfast Program Breakfasts as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Linoleic Acid			
1	Muffins, sweet/quick breads	18.2	16.6	17.5
2	Sweet rolls, donuts, toaster pastries	13.4	18.9$^{\beta}$	15.7
3	Cold cereal	8.0	5.2$^{\alpha}$	6.8
4	Buttered toast/bagels with cream cheese	6.5	6.1	6.3
5	Condiments, toppings and spreads	5.0	6.8	5.7
6	Breakfast sandwiches[a]	4.6	6.2$^{\alpha}$	5.3
7	Pancakes, waffles, French toast	5.8	3.7$^{\beta}$	4.9
8	Crackers and pretzels	5.0	2.4$^{\beta}$	3.9
9	Hot dog, corn dog, sausage sandwiches[b]	4.1	3.1	3.7
10	Peanut butter sandwiches	3.1	3.4	3.2
11	Sausages, hot dogs, cold cuts	3.0	3.3	3.1
12	Pizza and pizza products	2.6	3.4	3.0
13	Mexican–style entrees	2.2	2.0	2.1
14	Bread, rolls, bagels	1.7	2.1	1.9
15	Biscuits, croissants, cornbread	1.7	1.6	1.7
16	Peanut butter/nuts/seeds/trail mixes	1.8	1.4	1.6
17	Eggs	1.6	1.2	1.5
18	Hot cereal	1.5	1.0	1.3
19	1% milk, unflavored	1.3	0.9$^{\beta}$	1.1
20	Fruit juice, 100%	1.1	1.0$^{\alpha}$	1.1
21	2% milk, unflavored	1.0	1.0	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

[a] Includes sandwiches with egg, cheese, sausage or ham, or other types of meat on a biscuit, English muffin, bagel, or croissant.

[b] Includes sausage wrapped in a pancake.

$^{\alpha}$ Difference between elementary and secondary schools is significantly different from zero at the .05 level.

$^{\beta}$ Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.38. Food Sources of Alpha-Linolenic Acid in School Breakfast Program Breakfasts as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Alpha-Linolenic Acid			
1	Muffins, sweet/quick breads	26.0	24.0	25.2
2	Sweet rolls, donuts, toaster pastries	9.8	13.8$^{\beta}$	11.5
3	Buttered toast/bagels with cream cheese	8.4	8.0	8.2
4	Condiments, toppings and spreads	4.6	8.2$^{\beta}$	6.1
5	Pancakes, waffles, French toast	5.8	3.4$^{\beta}$	4.8
6	Breakfast sandwiches[a]	4.1	5.2	4.5
7	Cold cereal	4.8	3.1	4.1
8	Fruit juice, 100%	3.1	2.8$^{\alpha}$	2.9
9	Crackers and pretzels	3.8	1.8$^{\beta}$	2.9
10	Pizza and pizza products	2.4	3.2	2.7
11	1% milk, flavored	2.4	2.5	2.4
12	Mexican–style entrees	2.2	2.0	2.1
13	Bread, rolls, bagels	1.9	2.3	2.1
14	Sausages, hot dogs, cold cuts	1.6	1.8	1.7
15	1% milk, unflavored	1.9	1.3$^{\beta}$	1.6
16	2% milk, unflavored	1.5	1.4	1.4
17	Hot dog, corn dog, sausage sandwiches[b]	1.4	1.1	1.3
18	Biscuits, croissants, cornbread	1.2	1.2	1.2
19	Hot cereal	1.2	0.8	1.1
20	Cheese	1.3	0.7	1.0
21	Eggs	1.2	0.8	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

[a] Includes sandwiches with egg, cheese, sausage or ham, or other types of meat on a biscuit, English muffin, bagel, or croissant.

[b] Includes sausage wrapped in a pancake.

$^{\alpha}$ Difference between elementary and secondary schools is significantly different from zero at the .05 level.

$^{\beta}$ Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.39. Food Sources of Carbohydrate in School Breakfast Program Breakfasts as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Carbohydrate			
1	Fruit juice, 100%	13.4	12.7	13.1
2	Cold cereal	13.8	10.8$^{\beta}$	12.6
3	1% milk, flavored	8.0	8.4	8.2
4	Condiments, toppings and spreads	6.7	7.6	7.1
5	Sweet rolls, donuts, toaster pastries	5.2	9.4$^{\beta}$	6.9
6	1% milk, unflavored	5.7	4.2$^{\beta}$	5.1
7	Skim or nonfat milk, flavored	4.4	5.1	4.7
8	Muffins, sweet/quick breads	4.4	4.3	4.4
9	Bread, rolls, bagels	2.8	4.3$^{\beta}$	3.4
10	Pancakes, waffles, French toast	3.5	2.7$^{\alpha}$	3.2
11	Yogurt	2.4	2.4	2.4
12	Crackers and pretzels	2.9	1.4$^{\beta}$	2.3
13	Skim or nonfat milk, unflavored	2.5	1.9$^{\beta}$	2.3
14	2% milk, unflavored	2.1	2.1	2.1
15	Breakfast sandwiches[a]	1.7	2.6$^{\beta}$	2.0
16	Buttered toast/bagels with cream cheese	2.0	2.0	2.0
17	Grain/fruit cereal bars, granola bars	2.3	1.6	2.0
18	Apple	1.4	2.0$^{\beta}$	1.6
19	Banana	1.5	1.4	1.5
20	Biscuits, croissants, cornbread	1.4	1.4	1.4
21	Pizza and pizza products	1.1	1.5$^{\alpha}$	1.3
22	Citrus fruit	1.0	1.3	1.1
23	Entree food bars, bag/pre–plated lunches	1.0	0.8	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

[a] Includes sandwiches with egg, cheese, sausage or ham, or other types of meat on a biscuit, English muffin, bagel, or croissant.

$^{\alpha}$ Difference between elementary and secondary schools is significantly different from zero at the .05 level.

$^{\beta}$ Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.40. Food Sources of Protein in School Breakfast Program Breakfasts as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Protein			
1	1% milk, unflavored	18.3	13.6$^{\beta}$	16.4
2	1% milk, flavored	10.8	11.5	11.1
3	Skim or nonfat milk, unflavored	7.9	6.3$^{\alpha}$	7.3
4	2% milk, unflavored	7.1	7.1	7.1
5	Skim or nonfat milk, flavored	6.3	7.4	6.7
6	Breakfast sandwiches[a]	4.3	6.8$^{\beta}$	5.3
7	Cold cereal	5.2	4.0$^{\beta}$	4.7
8	Sweet rolls, donuts, toaster pastries	2.4	4.2$^{\beta}$	3.1
9	Bread, rolls, bagels	2.5	3.9$^{\beta}$	3.1
10	Yogurt	2.6	2.7	2.6
11	Pancakes, waffles, French toast	2.9	2.1$^{\beta}$	2.6
12	Pizza and pizza products	2.1	3.0$^{\alpha}$	2.5
13	Sausages, hot dogs, cold cuts	2.3	2.5	2.4
14	Muffins, sweet/quick breads	2.4	2.3	2.4
15	Fruit juice, 100%	2.2	2.1	2.2
16	Buttered toast/bagels with cream cheese	2.0	2.0	2.0
17	Mexican–style entrees	2.1	1.8	2.0
18	Cheese	1.8	1.2	1.5
19	Condiments, toppings and spreads	1.3	1.8	1.5
20	Eggs	1.5	1.3	1.4
21	Hot dog, corn dog, sausage sandwiches[b]	1.5	1.2	1.4
22	Biscuits, croissants, cornbread	1.1	1.1	1.1
23	Crackers and pretzels	1.3	0.7$^{\beta}$	1.1
24	Grain/fruit cereal bars, granola bars	1.1	0.8	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

[a] Includes sandwiches with egg, cheese, sausage or ham, or other types of meat on a biscuit, English muffin, bagel, or croissant.

[b] Includes sausage wrapped in a pancake.

$^{\alpha}$ Difference between elementary and secondary schools is significantly different from zero at the .05 level.

$^{\beta}$ Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.41. Food Sources of Vitamin A (RE) in School Breakfast Program Breakfasts as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Vitamin A (RE)			
1	Cold cereal	27.9	23.9$^{\beta}$	26.4
2	1% milk, unflavored	18.1	14.5$^{\beta}$	16.7
3	1% milk, flavored	10.9	12.6$^{\alpha}$	11.6
4	Skim or nonfat milk, unflavored	8.2	7.1	7.8
5	2% milk, unflavored	6.8	7.3	7.0
6	Skim or nonfat milk, flavored	6.0	7.7$^{\alpha}$	6.6
7	Sweet rolls, donuts, toaster pastries	1.9	4.3$^{\beta}$	2.8
8	Fruit juice, 100%	2.6	2.8	2.7
9	Condiments, toppings and spreads	1.6	3.5$^{\beta}$	2.3
10	Pancakes, waffles, French toast	1.8	1.9	1.8
11	Grain/fruit cereal bars, granola bars	2.0	1.2	1.7
12	Buttered toast/bagels with cream cheese	1.6	1.7	1.6
13	Breakfast sandwiches[a]	1.1	1.9$^{\beta}$	1.4
14	Eggs	1.2	1.0	1.1
15	Entree food bars, bag/pre–plated lunches	1.0	0.9	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

RE = Retinol equivalents.

[a] Includes sandwiches with egg, cheese, sausage or ham, or other types of meat on a biscuit, English muffin, bagel, or croissant.

$^{\alpha}$ Difference between elementary and secondary schools is significantly different from zero at the .05 level.

$^{\beta}$ Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.42. Food Sources of Vitamin A (RAE) in School Breakfast Program Breakfasts as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Vitamin A (RAE)			
1	Cold cereal	27.9	23.6$^{\beta}$	26.2
2	1% milk, unflavored	17.9	14.1$^{\beta}$	16.4
3	1% milk, flavored	10.8	12.3	11.4
4	Skim or nonfat milk, unflavored	8.2	7.0	7.7
5	2% milk, unflavored	6.7	7.1	6.9
6	Skim or nonfat milk, flavored	6.0	7.5$^{\alpha}$	6.6
7	Sweet rolls, donuts, toaster pastries	4.3	8.6$^{\beta}$	6.0
8	Condiments, toppings and spreads	1.5	3.2$^{\beta}$	2.1
9	Pancakes, waffles, French toast	1.8	1.9	1.9
10	Grain/fruit cereal bars, granola bars	2.0	1.2	1.6
11	Buttered toast/bagels with cream cheese	1.5	1.5	1.5
12	Breakfast sandwiches[a]	1.1	1.8$^{\beta}$	1.4
13	Fruit juice, 100%	1.3	1.4	1.4
14	Eggs	1.1	0.9	1.1

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

RAE = Retinol activity equivalents.

[a] Includes sandwiches with egg, cheese, sausage or ham, or other types of meat on a biscuit, English muffin, bagel, or croissant.

$^{\alpha}$ Difference between elementary and secondary schools is significantly different from zero at the .05 level.

$^{\beta}$ Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.43. Food Sources of Vitamin C in School Breakfast Program Breakfasts as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Vitamin C			
1	Fruit juice, 100%	67.9	65.9	67.1
2	Citrus fruit	9.5	13.2[α]	11.0
3	Cold cereal	10.3	8.2[β]	9.5
4	Sweet rolls, donuts, toaster pastries	1.4	1.9	1.6
5	Banana	1.3	1.3	1.3
6	Apple	1.0	1.5[β]	1.2
7	1% milk, flavored	1.0	1.1	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.44. Food Sources of Vitamin E in School Breakfast Program Breakfasts as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Vitamin E			
1	Sweet rolls, donuts, toaster pastries	13.6	21.5$^{\beta}$	16.9
2	Cold cereal	18.3	11.6	15.5
3	Fruit juice, 100%	8.2	7.9	8.1
4	Muffins, sweet/quick breads	6.9	6.2	6.6
5	Condiments, toppings and spreads	5.5	6.8	6.0
6	Breakfast sandwiches[a]	3.5	4.9$^{\beta}$	4.1
7	Hot dog, corn dog, sausage sandwiches[b]	4.2	3.2	3.8
8	Pancakes, waffles, French toast	4.0	2.8$^{\beta}$	3.5
9	Peanut butter sandwiches	3.3	3.6	3.4
10	Buttered toast/bagels with cream cheese	2.8	2.6	2.7
11	Grain/fruit cereal bars, granola bars	2.8	2.0	2.5
12	Peanut butter/nuts/seeds/trail mixes	2.3	2.5	2.4
13	Eggs	2.0	1.5	1.8
14	Peaches	1.7	1.3	1.6
15	Biscuits, croissants, cornbread	1.5	1.5	1.5
16	Apple	1.3	1.8$^{\alpha}$	1.5
17	Pizza and pizza products	1.3	1.7	1.5
18	Mexican–style entrees	1.5	1.3	1.4
19	Citrus fruit	1.0	1.3	1.2
20	2% milk, unflavored	1.0	0.9	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

[a] Includes sandwiches with egg, cheese, sausage or ham, or other types of meat on a biscuit, English muffin, bagel, or croissant.

[b] Includes sausage wrapped in a pancake.

$^{\alpha}$ Difference between elementary and secondary schools is significantly different from zero at the .05 level.

$^{\beta}$ Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.45. Food Sources of Vitamin B_6 in School Breakfast Program Breakfasts as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Vitamin B_6			
1	Cold cereal	46.5	40.5$^{\beta}$	44.2
2	Fruit juice, 100%	9.7	10.4	10.0
3	1% milk, unflavored	5.5	4.5$^{\beta}$	5.1
4	Sweet rolls, donuts, toaster pastries	3.2	6.8$^{\beta}$	4.6
5	1% milk, flavored	3.6	4.2$^{\alpha}$	3.8
6	Grain/fruit cereal bars, granola bars	3.9	2.8	3.5
7	Banana	3.2	3.4	3.3
8	Pancakes, waffles, French toast	2.6	2.5	2.6
9	2% milk, unflavored	2.3	2.5	2.3
10	Skim or nonfat milk, unflavored	2.4	2.1	2.3
11	Skim or nonfat milk, flavored	1.8	2.4$^{\beta}$	2.0
12	Breakfast sandwiches[a]	1.3	2.1$^{\beta}$	1.6
13	Entree food bars, bag/pre–plated lunches	1.3	1.1	1.3
14	Muffins, sweet/quick breads	1.4	0.9	1.2
15	Sausages, hot dogs, cold cuts	1.0	1.2	1.1
16	Condiments, toppings and spreads	0.9	1.3	1.1

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

[a] Includes sandwiches with egg, cheese, sausage or ham, or other types of meat on a biscuit, English muffin, bagel, or croissant.

$^{\alpha}$ Difference between elementary and secondary schools is significantly different from zero at the .05 level.

$^{\beta}$ Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.46. Food Sources of Vitamin B_{12} in School Breakfast Program Breakfasts as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Vitamin B_{12}			
1	Cold cereal	34.4	30.8$^{\beta}$	33.0
2	1% milk, unflavored	17.5	14.5$^{\beta}$	16.4
3	1% milk, flavored	9.0	10.7$^{\alpha}$	9.6
4	Skim or nonfat milk, unflavored	9.1	8.2	8.7
5	2% milk, unflavored	7.3	8.1	7.6
6	Skim or nonfat milk, flavored	6.7	8.9$^{\beta}$	7.5
7	Sweet rolls, donuts, toaster pastries	1.6	3.1$^{\beta}$	2.2
8	Yogurt	2.1	2.4	2.2
9	Breakfast sandwiches[a]	1.3	2.3$^{\beta}$	1.7
10	Pancakes, waffles, French toast	1.4	1.4	1.4
11	Grain/fruit cereal bars, granola bars	1.5	1.1	1.4
12	Sausages, hot dogs, cold cuts	1.0	1.1	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

[a] Includes sandwiches with egg, cheese, sausage or ham, or other types of meat on a biscuit, English muffin, bagel, or croissant.

$^{\alpha}$ Difference between elementary and secondary schools is significantly different from zero at the .05 level.

$^{\beta}$ Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.47. Food Sources of Folate (DFE) in School Breakfast Program Breakfasts as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Folate (DFE)			
1	Cold cereal	57.4	48.3$^{\beta}$	53.9
2	Sweet rolls, donuts, toaster pastries	4.2	8.2$^{\beta}$	5.8
3	Bread, rolls, bagels	3.8	7.0$^{\beta}$	5.0
4	Fruit juice, 100%	4.3	4.5	4.4
5	Pancakes, waffles, French toast	3.5	2.9	3.2
6	Grain/fruit cereal bars, granola bars	2.7	2.0	2.4
7	Muffins, sweet/quick breads	2.1	2.5	2.3
8	Breakfast sandwiches[a]	1.7	3.0$^{\beta}$	2.2
9	1% milk, unflavored	2.3	1.8$^{\beta}$	2.1
10	Buttered toast/bagels with cream cheese	1.9	2.2	2.1
11	1% milk, flavored	1.4	1.6	1.5
12	Pizza and pizza products	1.2	1.8$^{\beta}$	1.4
13	Crackers and pretzels	1.4	1.1	1.3
14	Entree food bars, bag/pre–plated lunches	1.3	1.2	1.3
15	Mexican–style entrees	1.1	1.1	1.1
16	Citrus fruit	0.9	1.3$^{\beta}$	1.1

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

DFE = Dietary folate equivalents.

[a] Includes sandwiches with egg, cheese, sausage or ham, or other types of meat on a biscuit, English muffin, bagel, or croissant.

$^{\alpha}$ Difference between elementary and secondary schools is significantly different from zero at the .05 level.

$^{\beta}$ Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.48. Food Sources of Niacin in School Breakfast Program Breakfasts as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Niacin			
1	Cold cereal	49.0	40.7[β]	45.7
2	Sweet rolls, donuts, toaster pastries	4.7	9.6[β]	6.6
3	Bread, rolls, bagels	3.2	5.2[β]	4.0
4	Breakfast sandwiches[a]	3.0	5.1[β]	3.8
5	Grain/fruit cereal bars, granola bars	4.4	2.9	3.8
6	Fruit juice, 100%	3.7	3.8	3.8
7	Pancakes, waffles, French toast	3.6	3.3	3.5
8	Buttered toast/bagels with cream cheese	2.6	2.6	2.6
9	Muffins, sweet/quick breads	2.6	2.3	2.5
10	Sausages, hot dogs, cold cuts	1.9	2.3	2.1
11	Crackers and pretzels	2.3	1.3[α]	1.9
12	Pizza and pizza products	1.4	2.0[α]	1.6
13	Biscuits, croissants, cornbread	1.4	1.5	1.5
14	Entree food bars, bag/pre–plated lunches	1.5	1.4	1.5
15	Peanut butter sandwiches	1.3	1.6	1.4
16	1% milk, unflavored	1.5	1.2[β]	1.4
17	1% milk, flavored	1.1	1.3	1.2
18	Condiments, toppings and spreads	1.1	1.3	1.2
19	Mexican–style entrees	1.1	1.1	1.1
20	Hot dog, corn dog, sausage sandwiches[b]	1.1	0.9	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

[a] Includes sandwiches with egg, cheese, sausage or ham, or other types of meat on a biscuit, English muffin, bagel, or croissant.

[b] Includes sausage wrapped in a pancake.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.49. Food Sources of Riboflavin in School Breakfast Program Breakfasts as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Riboflavin			
1	Cold cereal	24.7	20.9$^{\beta}$	23.2
2	1% milk, unflavored	17.2	13.7$^{\beta}$	15.9
3	1% milk, flavored	9.9	11.3	10.4
4	2% milk, unflavored	6.8	7.3	7.0
5	Skim or nonfat milk, unflavored	7.3	6.3	6.9
6	Skim or nonfat milk, flavored	5.7	7.2$^{\alpha}$	6.3
7	Sweet rolls, donuts, toaster pastries	2.7	5.3$^{\beta}$	3.7
8	Pancakes, waffles, French toast	2.8	2.4	2.6
9	Fruit juice, 100%	2.4	2.5	2.5
10	Breakfast sandwiches[a]	1.7	3.0$^{\beta}$	2.2
11	Yogurt	1.8	2.0	1.9
12	Grain/fruit cereal bars, granola bars	1.9	1.3	1.7
13	Bread, rolls, bagels	1.3	2.1$^{\beta}$	1.6
14	Muffins, sweet/quick breads	1.6	1.6	1.6
15	Buttered toast/bagels with cream cheese	1.1	1.1	1.1
16	Pizza and pizza products	0.9	1.4$^{\beta}$	1.1

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

[a] Includes sandwiches with egg, cheese, sausage or ham, or other types of meat on a biscuit, English muffin, bagel, or croissant.

$^{\alpha}$ Difference between elementary and secondary schools is significantly different from zero at the .05 level.

$^{\beta}$ Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.50. Food Sources of Thiamin in School Breakfast Program Breakfasts as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Thiamin			
1	Cold cereal	38.8	31.2$^{\beta}$	35.8
2	Sweet rolls, donuts, toaster pastries	4.9	9.2$^{\beta}$	6.6
3	Fruit juice, 100%	6.6	6.6	6.6
4	Bread, rolls, bagels	3.8	6.4$^{\beta}$	4.8
5	Grain/fruit cereal bars, granola bars	5.2	3.8	4.7
6	Breakfast sandwiches[a]	2.9	4.6$^{\beta}$	3.6
7	Pancakes, waffles, French toast	3.6	3.0	3.3
8	1% milk, flavored	3.1	3.5	3.3
9	1% milk, unflavored	3.2	2.4$^{\beta}$	2.9
10	Skim or nonfat milk, unflavored	3.1	2.6$^{\alpha}$	2.9
11	Skim or nonfat milk, flavored	2.4	2.9$^{\alpha}$	2.6
12	Muffins, sweet/quick breads	2.6	2.5	2.6
13	2% milk, unflavored	2.5	2.5	2.5
14	Buttered toast/bagels with cream cheese	2.2	2.3	2.2
15	Biscuits, croissants, cornbread	1.5	1.6	1.6
16	Pizza and pizza products	1.3	1.9$^{\alpha}$	1.5
17	Mexican–style entrees	1.3	1.2	1.3
18	Crackers and pretzels	1.5	0.8$^{\alpha}$	1.2
19	Entree food bars, bag/pre–plated lunches	1.2	1.2	1.2
20	Citrus fruit	0.9	1.3$^{\alpha}$	1.1

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

[a] Includes sandwiches with egg, cheese, sausage or ham, or other types of meat on a biscuit, English muffin, bagel, or croissant.

$^{\alpha}$ Difference between elementary and secondary schools is significantly different from zero at the .05 level.

$^{\beta}$ Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.51. Food Sources of Calcium in School Breakfast Program Breakfasts as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Calcium			
1	1% milk, unflavored	24.0	18.9[β]	22.0
2	1% milk, flavored	14.1	16.0	14.9
3	Skim or nonfat milk, unflavored	10.9	9.2	10.2
4	2% milk, unflavored	9.3	9.8	9.5
5	Skim or nonfat milk, flavored	8.1	10.1[α]	8.9
6	Cold cereal	7.4	6.4[α]	7.0
7	Fruit juice, 100%	3.4	3.8	3.6
8	Yogurt	3.4	3.7	3.5
9	Sweet rolls, donuts, toaster pastries	1.6	2.7[β]	2.0
10	Breakfast sandwiches[a]	1.5	2.5[β]	1.9
11	Pancakes, waffles, French toast	1.8	1.5	1.7
12	Cheese	1.9	1.3	1.6
13	Pizza and pizza products	1.3	2.0[β]	1.6
14	Grain/fruit cereal bars, granola bars	1.4	0.9	1.2
15	Muffins, sweet/quick breads	1.2	1.1	1.2
16	Bread, rolls, bagels	0.8	1.3[β]	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

[a] Includes sandwiches with egg, cheese, sausage or ham, or other types of meat on a biscuit, English muffin, bagel, or croissant.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.52. Food Sources of Iron in School Breakfast Program Breakfasts as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Iron			
1	Cold cereal	52.0	42.9[β]	48.5
2	Fruit juice, 100%	6.5	6.7	6.6
3	Sweet rolls, donuts, toaster pastries	4.3	8.7[β]	6.0
4	Bread, rolls, bagels	3.8	6.8[β]	5.0
5	Pancakes, waffles, French toast	3.5	3.1	3.3
6	Muffins, sweet/quick breads	3.2	3.0	3.1
7	Breakfast sandwiches[a]	2.3	4.0[β]	3.0
8	Grain/fruit cereal bars, granola bars	2.7	1.9	2.4
9	Buttered toast/bagels with cream cheese	2.3	2.5	2.3
10	1% milk, flavored	1.9	2.2	2.0
11	Crackers and pretzels	2.2	1.4	1.9
12	Entree food bars, bag/pre–plated lunches	1.8	1.4	1.7
13	Skim or nonfat milk, flavored	1.5	1.8	1.6
14	Pizza and pizza products	1.2	1.7[α]	1.4
15	Hot cereal	1.4	1.0	1.2
16	Biscuits, croissants, cornbread	1.2	1.3	1.2
17	Mexican–style entrees	1.2	1.2	1.2

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

[a] Includes sandwiches with egg, cheese, sausage or ham, or other types of meat on a biscuit, English muffin, bagel, or croissant.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.53. Food Sources of Magnesium in School Breakfast Program Breakfasts as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Magnesium			
1	1% milk, unflavored	14.3	11.1$^{\beta}$	13.1
2	Fruit juice, 100%	10.8	10.9	10.8
3	1% milk, flavored	9.8	10.9	10.2
4	Cold cereal	10.3	8.0$^{\beta}$	9.4
5	Skim or nonfat milk, flavored	7.5	9.2$^{\alpha}$	8.2
6	Skim or nonfat milk, unflavored	6.2	5.2$^{\alpha}$	5.8
7	2% milk, unflavored	5.7	5.9	5.8
8	Sweet rolls, donuts, toaster pastries	2.2	4.1$^{\beta}$	3.0
9	Muffins, sweet/quick breads	2.6	2.2	2.4
10	Yogurt	2.1	2.3	2.2
11	Bread, rolls, bagels	1.9	2.6$^{\alpha}$	2.2
12	Breakfast sandwiches[a]	1.7	2.7$^{\beta}$	2.1
13	Banana	2.0	2.0	2.0
14	Grain/fruit cereal bars, granola bars	2.1	1.9	2.0
15	Pancakes, waffles, French toast	2.2	1.5$^{\beta}$	1.9
16	Buttered toast/bagels with cream cheese	1.9	1.8	1.8
17	Condiments, toppings and spreads	1.5	1.9	1.7
18	Peanut butter sandwiches	1.2	1.4	1.3
19	Pizza and pizza products	1.1	1.6$^{\alpha}$	1.3
20	Hot cereal	1.4	0.9	1.2
21	Crackers and pretzels	1.5	0.8$^{\beta}$	1.2
22	Citrus fruit	0.9	1.3$^{\alpha}$	1.1

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

[a] Includes sandwiches with egg, cheese, sausage or ham, or other types of meat on a biscuit, English muffin, bagel, or croissant.

$^{\alpha}$ Difference between elementary and secondary schools is significantly different from zero at the .05 level.

$^{\beta}$ Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.54. Food Sources of Phosphorus in School Breakfast Program Breakfasts as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Phosphorus			
1	1% milk, unflavored	20.3	15.4[β]	18.3
2	1% milk, flavored	13.0	14.2	13.5
3	Skim or nonfat milk, unflavored	9.3	7.7[α]	8.6
4	Skim or nonfat milk, flavored	7.6	9.2[α]	8.2
5	2% milk, unflavored	8.0	8.1	8.0
6	Cold cereal	5.8	4.5[β]	5.3
7	Breakfast sandwiches[a]	3.0	4.9[β]	3.7
8	Pancakes, waffles, French toast	3.3	2.6[α]	3.0
9	Yogurt	2.8	3.0	2.9
10	Sweet rolls, donuts, toaster pastries	2.1	4.0[β]	2.8
11	Biscuits, croissants, cornbread	2.5	2.6	2.5
12	Fruit juice, 100%	2.4	2.4	2.4
13	Muffins, sweet/quick breads	2.2	2.2	2.2
14	Pizza and pizza products	1.5	2.2[α]	1.8
15	Bread, rolls, bagels	1.1	1.6[β]	1.3
16	Mexican–style entrees	1.4	1.2	1.3
17	Cheese	1.5	0.9	1.3
18	Grain/fruit cereal bars, granola bars	1.2	1.0	1.1
19	Buttered toast/bagels with cream cheese	1.1	1.0	1.1
20	Condiments, toppings and spreads	0.9	1.3[α]	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

[a] Includes sandwiches with egg, cheese, sausage or ham, or other types of meat on a biscuit, English muffin, bagel, or croissant.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.55. Food Sources of Potassium in School Breakfast Program Breakfasts as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Potassium			
1	Fruit juice, 100%	17.9	17.8	17.8
2	1% milk, unflavored	17.8	13.6[β]	16.1
3	1% milk, flavored	11.7	12.9	12.2
4	Skim or nonfat milk, flavored	7.3	8.8[α]	7.9
5	Skim or nonfat milk, unflavored	8.0	6.6[α]	7.4
6	2% milk, unflavored	7.1	7.2	7.1
7	Cold cereal	3.9	3.1[β]	3.6
8	Yogurt	2.5	2.7	2.6
9	Banana	2.5	2.4	2.4
10	Breakfast sandwiches[a]	1.4	2.2[β]	1.7
11	Citrus fruit	1.5	2.1[α]	1.7
12	Sweet rolls, donuts, toaster pastries	1.1	2.1[β]	1.5
13	Condiments, toppings and spreads	1.2	1.8[β]	1.5
14	Apple	1.1	1.6[β]	1.3
15	Muffins, sweet/quick breads	1.2	1.1	1.2
16	Pancakes, waffles, French toast	1.3	0.9[β]	1.1

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

[a] Includes sandwiches with egg, cheese, sausage or ham, or other types of meat on a biscuit, English muffin, bagel, or croissant.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.56. Food Sources of Sodium in School Breakfast Program Breakfasts as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Sodium			
1	Cold cereal	13.6	10.4$^{\beta}$	12.3
2	Breakfast sandwiches[a]	7.3	10.5$^{\beta}$	8.6
3	1% milk, unflavored	6.9	4.8$^{\beta}$	6.0
4	Sweet rolls, donuts, toaster pastries	4.5	7.8$^{\beta}$	5.9
5	Pancakes, waffles, French toast	6.4	4.5$^{\beta}$	5.6
6	1% milk, flavored	5.4	5.4	5.4
7	Condiments, toppings and spreads	3.8	5.4$^{\beta}$	4.5
8	Bread, rolls, bagels	3.7	5.0$^{\alpha}$	4.2
9	Biscuits, croissants, cornbread	4.1	4.0	4.0
10	Muffins, sweet/quick breads	4.2	3.9	4.0
11	Pizza and pizza products	3.6	4.7	4.0
12	Buttered toast/bagels with cream cheese	3.7	3.4	3.6
13	Mexican–style entrees	3.0	2.5	2.8
14	Sausages, hot dogs, cold cuts	2.7	2.8	2.7
15	Crackers and pretzels	3.3	1.6$^{\beta}$	2.6
16	Skim or nonfat milk, unflavored	2.8	2.2$^{\beta}$	2.6
17	2% milk, unflavored	2.5	2.4	2.5
18	Hot dog, corn dog, sausage sandwiches[b]	2.7	2.1	2.4
19	Skim or nonfat milk, flavored	2.1	2.4	2.2
20	Eggs	1.7	1.3	1.5
21	Hot cereal	1.6	1.0	1.4
22	Sandwiches with plain meat or poultry	0.3	2.4	1.2
23	Cheese	1.4	0.7$^{\alpha}$	1.1
24	Grain/fruit cereal bars, granola bars	1.1	0.8	1.0
25	Yogurt	1.0	1.0	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

[a] Includes sandwiches with egg, cheese, sausage or ham, or other types of meat on a biscuit, English muffin, bagel, or croissant.

[b] Includes sausage wrapped in a pancake.

$^{\alpha}$ Difference between elementary and secondary schools is significantly different from zero at the .05 level.

$^{\beta}$ Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.57. Food Sources of Zinc in School Breakfast Program Breakfasts as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Zinc			
1	Cold cereal	40.9	35.0$^{\beta}$	38.6
2	1% milk, unflavored	10.9	8.8$^{\beta}$	10.1
3	1% milk, flavored	6.5	7.5	6.9
4	Skim or nonfat milk, flavored	4.3	5.4$^{\alpha}$	4.7
5	2% milk, unflavored	4.4	4.8	4.6
6	Skim or nonfat milk, unflavored	4.7	4.1	4.5
7	Breakfast sandwiches[a]	2.3	4.0$^{\beta}$	3.0
8	Bread, rolls, bagels	1.8	3.3$^{\beta}$	2.4
9	Yogurt	2.1	2.4	2.2
10	Muffins, sweet/quick breads	2.1	2.3	2.2
11	Grain/fruit cereal bars, granola bars	1.8	1.3	1.6
12	Sweet rolls, donuts, toaster pastries	1.1	2.2$^{\beta}$	
13	Sausages, hot dogs, cold cuts	1.4	1.6	1.5
14	Fruit juice, 100%	1.4	1.5	1.4
15	Condiments, toppings and spreads	1.2	1.6$^{\alpha}$	1.4
16	Pizza and pizza products	1.1	1.7$^{\beta}$	1.3
17	Pancakes, waffles, French toast	1.4	1.0$^{\beta}$	1.3
18	Buttered toast/bagels with cream cheese	1.1	1.2	1.1
19	Mexican–style entrees	1.0	0.9	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

[a] Includes sandwiches with egg, cheese, sausage or ham, or other types of meat on a biscuit, English muffin, bagel, or croissant.

$^{\alpha}$ Difference between elementary and secondary schools is significantly different from zero at the .05 level.

$^{\beta}$ Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.58. Food Sources of Cholesterol in School Breakfast Program Breakfasts as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Cholesterol			
1	Breakfast sandwiches[a]	13.0	20.5[β]	16.1
2	Eggs	16.5	12.7[α]	14.9
3	1% milk, unflavored	10.6	7.6[β]	9.4
4	Pancakes, waffles, French toast	9.5	6.2[β]	8.1
5	Mexican–style entrees	7.6	6.6	7.2
6	2% milk, unflavored	6.7	6.5	6.6
7	Muffins, sweet/quick breads	5.4	5.4	5.4
8	Sweet rolls, donuts, toaster pastries	5.0	5.9	5.4
9	Sausages, hot dogs, cold cuts	4.5	5.1	4.7
10	1% milk, flavored	4.7	4.8	4.7
11	Condiments, toppings and spreads	2.2	3.9[β]	2.9
12	Skim or nonfat milk, unflavored	1.8	1.4[α]	1.7
13	Hot dog, corn dog, sausage sandwiches[b]	1.8	1.4	1.7
14	Skim or nonfat milk, flavored	1.3	1.5	1.4
15	Cheese	1.7	1.0	1.4
16	Pizza and pizza products	1.1	1.6[α]	1.3
17	Yogurt	1.1	1.0	1.1

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

[a] Includes sandwiches with egg, cheese, sausage or ham, or other types of meat on a biscuit, English muffin, bagel, or croissant.

[b] Includes sausage wrapped in a pancake.

[α] Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β] Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.59. Food Sources of Dietary Fiber in School Breakfast Program Breakfasts as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Dietary Fiber			
1	Cold cereal	20.1	14.8$^{\beta}$	17.9
2	Apple	6.0	8.4$^{\beta}$	7.0
3	1% milk, flavored	5.9	6.4	6.1
4	Muffins, sweet/quick breads	6.1	5.3	5.8
5	Sweet rolls, donuts, toaster pastries	4.3	7.0$^{\beta}$	5.4
6	Citrus fruit	4.5	6.3$^{\alpha}$	5.2
7	Fruit juice, 100%	4.9	4.6	4.8
8	Bread, rolls, bagels	4.0	5.3$^{\alpha}$	4.5
9	Skim or nonfat milk, flavored	4.1	4.6	4.3
10	Banana	4.3	4.1	4.2
11	Pancakes, waffles, French toast	4.6	3.2$^{\beta}$	4.0
12	Buttered toast/bagels with cream cheese	3.5	3.3	3.4
13	Breakfast sandwiches[a]	2.0	3.1$^{\beta}$	2.4
14	Crackers and pretzels	2.7	1.4$^{\beta}$	2.2
15	Pears	2.4	1.7	2.1
16	Condiments, toppings and spreads	2.0	2.3	2.1
17	Hot cereal	2.0	1.3	1.7
18	Mexican–style entrees	1.6	1.7	1.6
19	Pizza and pizza products	1.4	1.9	1.6
20	Peanut butter sandwiches	1.5	1.7	1.5
21	Peaches	1.6	1.3	1.5
22	Grain/fruit cereal bars, granola bars	1.5	1.2	1.4
23	Biscuits, croissants, cornbread	1.3	1.3	1.3

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

[a] Includes sandwiches with egg, cheese, sausage or ham, or other types of meat on a biscuit, English muffin, bagel, or croissant.

$^{\alpha}$ Difference between elementary and secondary schools is significantly different from zero at the .05 level.

$^{\beta}$ Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.60. Food Sources of Calories from Solid Fats and Added Sugars in School Breakfast Program Breakfasts as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
Calories from Solid Fats and Added Sugars				
1	Sweet rolls, donuts, toaster pastries	10.5	16.9$^{\beta}$	13.2
2	Condiments, toppings and spreads	11.0	13.3$^{\alpha}$	11.9
3	Cold cereal	11.3	8.5$^{\beta}$	10.1
4	1% milk, flavored	9.7	9.6	9.7
5	Muffins, sweet/quick breads	4.9	4.6	4.8
6	Skim or nonfat milk, flavored	4.4	4.8	4.6
7	Breakfast sandwiches[a]	3.7	5.2$^{\beta}$	4.4
8	1% milk, unflavored	4.7	3.2$^{\beta}$	4.1
9	Yogurt	4.1	3.6	3.9
10	2% milk, unflavored	4.0	3.7	3.8
11	Crackers and pretzels	4.1	1.7$^{\beta}$	3.1
12	Grain/fruit cereal bars, granola bars	3.2	2.1	2.8
13	Pancakes, waffles, French toast	3.0	2.2$^{\alpha}$	2.7
14	Buttered toast/bagels with cream cheese	2.7	2.3	2.5
15	Biscuits, croissants, cornbread	2.1	2.0	2.1
16	Pizza and pizza products	1.8	2.3$^{\alpha}$	2.0
17	Sausages, hot dogs, cold cuts	2.1	1.9	2.0
18	Mexican–style entrees	1.4	1.1	1.3
19	Cheese	1.5	0.8	1.2
20	Hot dog, corn dog, sausage sandwiches[b]	1.2	0.9	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research, Inc. are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

[a] Includes sandwiches with egg, cheese, sausage or ham, or other types of meat on a biscuit, English muffin, bagel, or croissant.

[b] Includes sausage wrapped in a pancake.

$^{\alpha}$Difference between elementary and secondary schools is significantly different from zero at the .05 level.

$^{\beta}$Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.61. Food Sources of Solid Fats in School Breakfast Program Breakfasts as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Solid Fats			
1	Sweet rolls, donuts, toaster pastries	12.5	20.2$^{\beta}$	15.8
2	1% milk, unflavored	9.5	6.2$^{\beta}$	8.1
3	Breakfast sandwiches[a]	7.0	9.3$^{\alpha}$	8.0
4	2% milk, unflavored	8.0	7.0	7.6
5	Condiments, toppings and spreads	4.8	7.9$^{\beta}$	6.1
6	1% milk, flavored	6.1	5.7	5.9
7	Buttered toast/bagels with cream cheese	4.7	3.8	4.3
8	Sausages, hot dogs, cold cuts	4.1	3.7	3.9
9	Pizza and pizza products	3.3	4.1	3.7
10	Muffins, sweet/quick breads	3.5	3.7	3.6
11	Pancakes, waffles, French toast	4.0	3.0$^{\beta}$	3.6
12	Biscuits, croissants, cornbread	3.7	3.4	3.5
13	Crackers and pretzels	4.3	1.8$^{\beta}$	3.2
14	Mexican–style entrees	2.9	2.1	2.5
15	Cold cereal	2.8	2.1$^{\beta}$	2.5
16	Cheese	3.0	1.5$^{\alpha}$	2.4
17	Grain/fruit cereal bars, granola bars	2.3	1.6	2.0
18	Eggs	2.0	1.4$^{\alpha}$	1.8
19	Hot dog, corn dog, sausage sandwiches[b]	1.6	1.1$^{\alpha}$	1.4
20	Yogurt	1.5	1.1	1.3
21	Cheese sandwiches	1.3	0.8	1.1

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research, Inc. are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

[a] Includes sandwiches with egg, cheese, sausage or ham, or other types of meat on a biscuit, English muffin, bagel, or croissant.

[b] Includes sausage wrapped in a pancake.

$^{\alpha}$Difference between elementary and secondary schools is significantly different from zero at the .05 level.

$^{\beta}$Difference between elementary and secondary schools is significantly different from zero at the .01 level.

Table I.62. Food Sources of Added Sugars in School Breakfast Program Breakfasts as *Offered*

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered		
		Elementary Schools	Secondary Schools	All Schools
	Added Sugars			
1	Cold cereal	19.6	15.4[β]	17.9
2	Condiments, toppings and spreads	17.0	19.1	17.9
3	1% milk, flavored	13.3	13.8	13.5
4	Sweet rolls, donuts, toaster pastries	8.6	13.4[β]	10.6
5	Skim or nonfat milk, flavored	8.1	9.3	8.6
6	Yogurt	6.6	6.4	6.5
7	Muffins, sweet/quick breads	6.3	5.6	6.0
8	Grain/fruit cereal bars, granola bars	4.1	2.7	3.5
9	Crackers and pretzels	3.9	1.7[β]	3.0
10	Pancakes, waffles, French toast	1.9	1.4[α]	1.7
11	Peaches	1.2	0.9	1.1
12	Bread, rolls, bagels	0.9	1.4[β]	1.1

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research, Inc. are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

[α]Difference between elementary and secondary schools is significantly different from zero at the .05 level.

[β]Difference between elementary and secondary schools is significantly different from zero at the .01 level.

APPENDIX J

SUPPLEMENTAL TABLES FOR CHAPTER 10

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TABLES

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Table J.1. Average Calorie and Nutrient Content of Afterschool Snacks *Offered* to Students

	Average Amount
Calories	264
Macronutrients	
Total fat (g)	7
Saturated fat (g)	2
Monounsaturated fat (g)	3
Polyunsaturated fat (g)	1
Linoleic acid (g)	1
Alpha–linolenic acid (g)	0.1
Carbohydrate (g)	43
Protein (g)	8
Vitamins	
Vitamin A (mcg RE)	134
Vitamin A (mcg RAE)	120
Vitamin C (mg)	18
Vitamin E (mg AT)	0.7
Vitamin B_6 (mg)	0.2
Vitamin B_{12} (mcg)	0.9
Folate (mcg DFE)	68
Niacin (mg)	2
Riboflavin (mg)	0.4
Thiamin (mg)	0.2
Minerals	
Calcium (mg)	221
Iron (mg)	1.8
Magnesium (mg)	40
Phosphorus (mg)	217
Potassium (mg)	430
Sodium (mg)	283
Zinc (mg)	1.4
Other Dietary Components	
Cholesterol (mg)	10
Dietary fiber (g)	2
Dietary fiber (g/1,000 calories)	7
Average Percentage of Calories from:	
Total fat	23.2
Saturated fat	7.6
Monounsaturated fat	9.2
Polyunsaturated fat	5.0
Linoleic acid	4.5
Alpha–linolenic acid	0.4
Carbohydrate	66.2
Protein	12.6
Number of Schools	**172**

Source: School Nutrition Dietary Assessment Study-IV, Afterschool Snack Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program and providing reimbursable afterschool snacks.

AT = Alpha–tocopherol; DFE = Dietary folate equivalents; RAE = Retinol activity equivalents; RE = Retinol equivalents.

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Table J.2. Average and Distribution of Calories and Nutrients in Afterschool Snacks *Offered*

			Percentiles						
	Average	SE	5th	10th	25th	50th	75th	90th	95th
Calories	264	6.1	185~	203	229	252	287	369	396~
Macronutrients									
Total fat (g)	7	0.3	3~	4	5	6	8	11	13~
Saturated fat (g)	2	0.1	1	1	2	2	3	4	4~
Monounsaturated fat (g)	3	0.1	1~	1	2	2	3	5	5~
Polyunsaturated fat (g)	1	0.1	0~	1	1	1	2	3	3~
Linoleic acid (g)	1	0.1	0~	1	1	1	2	3	3~
Alpha–linolenic acid (g)	0.1	0.01	0.0~	0.0	0.0	0.1	0.2	0.3	0.3~
Carbohydrate (g)	43	0.9	31~	34	38	42	46	56	61~
Protein (g)	8	0.4	3~	4	6	8	10	13	15~
Vitamins									
Vitamin A (mcg RE)	134	8.8	22~	42	80	120	167	220	283~
Vitamin A (mcg RAE)	120	7.1	15~	39	71	118	160	209	222~
Vitamin C (mg)	18	1.5	1~	2	7	13	25	42	50~
Vitamin E (mg AT)	0.7	0.06	0.2~	0.2	0.3	0.5	0.8	1.4	1.9~
Vitamin B_6 (mg)	0.2	0.01	0.1~	0.1	0.1	0.2	0.3	0.4	0.4~
Vitamin B_{12} (mcg)	0.9	0.06	0.0~	0.2	0.5	0.8	1.1	1.5	1.6~
Folate (mcg)	50	2.9	25~	30	33	44	58	80	84~
Folate (mcg DFE)	68	4.7	31~	33	42	55	79	112	128~
Niacin (mg)	2	0.1	1~	1	1	2	2	3	4~
Riboflavin (mg)	0.4	0.02	0.1~	0.2	0.3	0.4	0.5	0.7	0.7~
Thiamin (mg)	0.2	0.01	0.1~	0.1	0.1	0.2	0.2	0.3	0.3~
Minerals									
Calcium (mg)	221	11.8	41~	61	147	212	303	338	405~
Iron (mg)	1.8	0.09	0.7~	1.0	1.3	1.6	2.2	3.3	3.4~
Magnesium (mg)	40	1.4	21~	24	29	36	47	57	71~
Phosphorus (mg)	217	9.8	64~	86	152	210	276	317	397~
Potassium (mg)	430	13.2	251~	293	366	414	472	616	675~
Sodium (mg)	283	12.4	159~	176	214	255	308	412	488~
Zinc (mg)	1.4	0.09	0.4~	0.5	0.9	1.3	1.7	2.3	3.0~
Other Components									
Cholesterol (mg)	10	1.0	0~	2	5	8	12	18	28~
Dietary fiber (g)	2	0.1	1~	1	1	2	2	3	4~

Table J.2 *(continued)*

	Average	SE	Percentiles						
			5th	10th	25th	50th	75th	90th	95th
Percentage of Calories from:									
Total fat	23.2	0.72	12.5~	14.8	18.5	21.8	27.7	31.8	34.9~
Saturated fat	7.6	0.22	3.2~	4.3	5.8	7.5	9.6	10.8	11.4~
Monosaturated fat	9.2	0.40	4.3~	5.0	6.5	8.7	11.1	13.3	14.8~
Polyunsaturated fat	5.0	0.26	1.5~	2.4	3.2	4.3	6.1	9.1	10.5~
Linoleic acid	4.5	0.24	1.4~	2.2	2.8	3.9	5.4	8.1	9.5~
Alpha–linolenic acid	0.4	0.04	0.1~	0.1	0.2	0.3	0.6	0.9	1.1~
Carbohydrate	66.2	0.73	52.9~	56.3	61.3	66.9	70.4	75.5	79.3~
Protein	12.6	0.41	5.4~	7.3	10.5	12.7	15.1	17.2	18.0~
Number of Schools	**172**								

Source: School Nutrition Dietary Assessment Study-IV, Afterschool Snack Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program and providing reimbursable afterschool snacks.

AT = alpha–tocopherol; DFE = dietary folate equivalents; RAE = retinol activity equivalents; RE = retinol equivalents; SE = standard error.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1.

Table J.3. Average and Distribution of Nutrients per 1,000 Calories in Afterschool Snacks *Offered* Compared with Reference Standards for School-Age Children

			Reference Standards				Percentiles						
	Average	SE	Ages 4 – 8 Males/ Females	Ages 9 – 13 Males/ Females	Ages 14 – 18 Males	Ages 14 – 18 Females	5th	10th	25th	50th	75th	90th	95th
Macronutrients													
Total fat (g)	26	0.8	n.a.	n.a.	n.a.	n.a.	14~	16	21	24	31	35	39~
Saturated fat (g)	8	0.2	n.a.	n.a.	n.a.	n.a.	4~	5	6	8	11	12	13~
Monounsaturated fat (g)	10	0.4	n.a.	n.a.	n.a.	n.a.	5~	6	7	10	12	15	16~
Polyunsaturated fat (g)	6	0.3	n.a.	n.a.	n.a.	n.a.	2~	3	4	5	7	10	12~
Linoleic acid (g)[b]	5	0.3	6	6	7	5	2~	2	3	4	6	9	11~
Alpha–linolenic acid (g)[b]	0.5	0.05	0.5	0.6	0.7	0.5	0.1~	0.2	0.2	0.3	0.7	1.0	1.3~
Carbohydrate (g)[c]	166	1.8	72	65	54	54	132~	141	153	167	176	189	198~
Protein (g)[c]	31	1.0	11	17	22	19	14~	18	26	32	38	43	45~
Vitamins													
Vitamin A (mcg RE)[c]	518	36.0	n.a.	n.a.	n.a.	n.a.	99~	156	284	468	658	872	1,038~
Vitamin A (mcg RAE)[c]	459	26.9	222	300	375	292	69~	146	281	451	605	833	875~
Vitamin C (mg)[c]	72	6.5	14	23	31	27	4~	8	22	51	104	164	208~
Vitamin E (mg AT)[c]	2.6	0.25	4	6	6	6	0.7~	0.9	1.4	1.8	2.8	4.3	8.5~
Vitamin B_6 (mg)[c]	0.8	0.04	0.3	0.5	0.5	0.5	0.4~	0.4	0.5	0.7	1.1	1.4	1.6~
Vitamin B_{12} (mcg)[c]	3.2	0.24	0.7	0.9	1	1.0	0.2~	0.9	1.9	3.0	4.3	5.5	6.4~
Folate (mcg)[c]	191	10.2	n.a.	n.a.	n.a.	n.a.	100~	110	132	163	219	326	381~
Folate (mcg DFE)[c]	261	16.6	111	150	167	167	105~	137	176	217	310	469	579~
Niacin (mg)[c]	7	0.4	4	6	6.7	6	3~	4	5	7	9	11	12~
Riboflavin (mg)[c]	1.6	0.08	0.3	0.5	0.5	0.4	0.7~	0.7	1.1	1.5	2.0	2.4	2.5~
Thiamin (mg)[c]	0.8	0.03	0.3	0.5	0.5	0.4	0.4~	0.5	0.6	0.7	0.9	1.1	1.2~
Minerals													
Calcium (mg)[c]	833	41.1	556	650	542	542	184~	257	584	792	1,117	1,223	1,385~
Iron (mg)[c]	7.1	0.37	6	4	5	6	3.9~	4.2	5.0	6.0	8.6	11.3	14.0~
Magnesium (mg)[c]	149	3.9	72	120	171	150	93~	105	125	145	171	190	199~
Phosphorus (mg)[c]	814	31.1	278	625	521	521	302~	367	639	793	1,030	1,131	1,204~
Potassium (mg)[b]	1,634	38.5	2,111	2,250	1,958	1,958	1,041~	1,138	1,439	1,588	1,840	2,076	2,206~
Sodium (mg)[d]	1,079	35.3	<1,056	<1,100	<958	<958	645~	746	868	1,042	1,219	1,441	1,558~
Zinc (mg)[c]	5.2	0.34	3	4	5	4	1.8~	2.1	3.4	4.6	6.4	8.8	10.6~
Other Components													
Cholesterol (mg)[e]	38	3.2	<167	<150	<125	<125	1~	9	20	34	48	60	82~
Dietary fiber (g)[f]	7	0.3	14	14	14	14	4~	4	5	6	8	11	14~
Number of Schools	**172**												

Table J.3 *(continued)*

Source: School Nutrition Dietary Assessment Study-IV, Afterschool Snack Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program and providing reimbursable afterschool snacks.

[a] The "per 1,000 calorie" reference standards are based on *Dietary Reference Intakes* and assume a 1,700 calorie diet for 4 to 8 year olds, a 1,900 calorie diet for 9 to 13 year olds, a 2,600 calorie diet for 14 to 18 year old males, and a 2,000 calorie diet for 14 to 18 year old females. These calorie levels represent weighted averages for each age group, assuming a an active level of physical activity for 4 to 8 year olds and a moderately active level of physical activity for 9 to 13 year olds and 14 to 18 year olds (IOM 2010).

[b] Reference standard is based on the Adequate Intake (AI) (IOM 2006).

[c] Reference standard is based on the Recommended Dietary Allowance (RDA) (IOM 2006).

[d] Reference standard is based on the 2010 *Dietary Guidelines* recommendation.

[e] Reference standard is based on the 2010 *Dietary Guidelines* recommendation.

[f] Reference standard is based on the 2010 *Dietary Guidelines* recommendation.

n.a. = not applicable; AT = alpha–tocopherol; DFE = dietary folate equivalents; RE = retinol equivalents; RAE = retinol activity equivalents; SE = standard error.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1.

Table J.4. Average Amounts of Food Groups in Afterschool Snacks *Offered,* Relative to USDA Food Pattern Recommendations (1,200 to 1,800 calories)

		Calorie Levels[a]							
		1,200		1,400		1,600		1,800	
	Average Amount	Recommended Amount[b]	Percentage of Recommendation[c]	Recommended Amount[b]	Percentage of Recommendation[c]	Recommended Amount[b]	Percentage of Recommendation[c]	Recommended Amount[b]	Percentage of Recommendation[c]
Fruits (cup equiv)	0.41	1	41	1.5	27	1.5	27	2	21
Vegetables (cup equiv)	0.02	1.5	1	1.5	1	2	1	2.5	1
Dark green (cup/wk)[d]	0.00~	1	0	1	0	1.5	0	1.5	0
Red and orange (cup/wk)[d]	0.05	3	2	3	2	4	1	5.5	1
Legumes (cup/wk)[d,e]	0.00	0.5	0	0.5	0	1	0	1.5	0
Starchy (cup/wk)[d]	0.01~	3.5	0	3..5	0	4	0	5	0
Other (cup/wk)[d]	0.02~	2.5	1	2.5	1	3.5	1	4	1
Grains (oz equiv)	1.03	4	26	5	21	5	21	6	17
Whole grains (oz equiv)	0.18	2	9	2.5	7	3	6	3	6
Protein foods (oz equiv)[f]	0.11	3	4	4	3	5	2	5.5	2
Dairy (cup equiv)	0.65	2	26	2	26	3	22	3	22
Oils (tsp)	0.33	4	8	4	8	5	7	6	5
Calories from Solid Fats and Added Sugars	75	120	63	120	63	120	63	260	29
Calories from solid fats	40	n.a		n.a		n.a		n.a	
Calories from added sugars	35	n.a		n.a		n.a		n.a	
Number of Schools	**172**								

Source: School Nutrition Dietary Assessment Study-IV, Afterschool Snack Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program and providing reimbursable afterschool snacks.

[a] USDA Food Patterns assign individuals to a calorie level based on their sex, age, and activity level. Most school-age children would require between 1,200 and 2,400 calories.

[b] Recommended daily amounts of food from each group within a calorie level, with the exception of the vegetable subgroups. Vegetable subgroups are recommended amounts per week.

[c] Percentage of recommended daily amount from each group within calorie level.

[d] Includes only schools that provided menu information for 5 days.

[e] Includes legumes offered as a vegetable or in combination entrees.

Table J.4 *(continued)*

[f] Includes legumes offered as a meat alternate.

n.a. = not applicable.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1.

Table J.5. Average Amounts of Food Groups in Afterschool Snacks *Offered,* Relative to USDA Food Pattern Recommendations (2,000 to 2,400 calories)

		Calorie Levels[a]					
		2,000		2,200		2,400	
	Average Amount	Recommended Amount	Percentage of Recommendation	Recommended Amount	Percentage of Recommendation	Recommended Amount	Percentage of Recommendation
Fruits (cup equiv)	0.41	2	21	2	21	2	21
Vegetables (cup equiv)	0.02	2.5	1	3	1	3	1
Dark green (cup/wk)[d]	0.00~	1.5	0	2	0	2	0
Red and orange (cup/wk)[d]	0.05	5.5	1	6	1	6	1
Legumes (cup/wk)[d,e]	0.00	1.5	0	2	0	2	0
Starchy (cup/wk)[d]	0.01~	5	0	6	0	6	0
Other (cup/wk)[d]	0.02~	4	1	5	0	5	0
Grains (oz equiv)	1.03	6	17	7	15	8	13
Whole grains (oz equiv)	0.18	3	6	3.5	5	4	5
Protein foods (oz equiv)[f]	0.11	5.5	2	6	2	6.5	2
Dairy (cup equiv)	0.65	3	22	3	22	3	22
Oils (tsp)	0.33	6	5	6	5	7	5
Calories from Solid Fats and Added Sugars	75	260	29	270	28	330	23
Calories from solid fats	40	n.a		n.a		n.a	
Calories from added sugars	35	n.a		n.a		n.a	
Number of Schools	**172**						

Source: School Nutrition Dietary Assessment Study-IV, Afterschool Snack Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program and providing reimbursable afterschool snacks.

[a] USDA Food Patterns assign individuals to a calorie level based on their sex, age, and activity level. Most school-age children would require between 1,200 and 2,400 calories.

[b] Recommended daily amounts of food from each group within a calorie level, with the exception of the vegetable subgroups. Vegetable subgroups are recommended amounts per week.

[c] Percentage of recommended daily amount from each group within calorie level.

[d] Includes only schools that provided menu information for 5 days.

[e] Includes legumes offered as a vegetable or included in combination entrees.

[f] Includes legumes offered as a meat alternate.

Table J.5 *(continued)*

n.a. = not applicable.

~ Point estimate is considered less precise than estimates that are not flagged because the sample size is small or the coefficient of variation is large. The rules used in flagging estimates are described in Chapter 1.

Table J.6. Average Amounts of Food Groups per 1,000 Calories in Afterschool Snacks *Offered*, Relative to Recommendations

	Recommended Minimum Amount per 1,000 Calories[a]	Average Amount	Percentage of Recommendation
Total Fruit	0.8 cup	1.60	200
Whole Fruit (not juice)	0.4 cup	0.59	147
Total Vegetables	1.1 cup	0.08	7
Dark Green and Orange Vegetables and Legumes[b]	0.4 cup	0.04	10
Total Grains	3.0 oz	3.94	131
Whole Grains	1.5 oz	0.69	46
Protein Foods	2.5 oz	0.37	15
Dairy	1.3 cup	2.42	186
Oils	12 gm	5.30	44
Solid fats (gm)	n.a.	17	
Added Sugars (gm)	n.a.	8	
Number of Schools		**172**	

Source: School Nutrition Dietary Assessment Study-IV, Afterschool Snack Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program and providing reimbursable afterschool snacks.

[a] Recommended minimum amounts per 1,000 calories are based on the standards used in the Healthy Eating Index-2005 (Guenther et al. 2008).

[b] Includes legumes offered as vegetables or included in combination entrees.

n.a. = Not applicable.

Table J.7. Food Sources of Calories from Solid Fats and Added Sugars in Afterschool Snacks *Offered* to Students

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered: All Schools
	Calories from Solid Fats and Added Sugars	
1	Crackers and pretzels	30.0
2	1% milk, flavored	10.0
3	Cookies, cakes, brownies	10.0
4	Skim or nonfat milk, flavored	9.1
5	1% milk, unflavored	5.4
6	Cheese	5.2
7	Sweet rolls, donuts, toaster pastries	5.2
8	Grain/fruit cereal bars, granola bars	3.8
9	2% milk, unflavored	3.7
10	Muffins, sweet/quick breads	3.2
11	Cold cereal	2.9
12	Yogurt	2.2
13	Peanut butter sandwiches	1.5

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research, Inc. are weighted to be representative of all public schools offering the National School Lunch Program and providing reimbursable afterschool snacks.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

Table J.8. Food Sources of Solid Fats in Afterschool Snacks *Offered* to Students

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered: All Schools
	Solid Fats	
1	Crackers and pretzels	37.0
2	1% milk, unflavored	10.0
3	Cheese	9.7
4	Cookies, cakes, brownies	9.4
5	2% milk, unflavored	6.8
6	1% milk, flavored	6.0
7	Sweet rolls, donuts, toaster pastries	5.3
8	Grain/fruit cereal bars, granola bars	2.6
9	Muffins, sweet/quick breads	1.8
10	Skim or nonfat milk, flavored	1.4
11	Salad dressings	1.3
12	Peanut butter sandwiches	1.0
13	Biscuits, croissants, cornbread	1.0

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research, Inc. are weighted to be representative of all public schools offering the National School Lunch Program and providing reimbursable afterschool snacks.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

Table J.9. Food Sources of Added Sugars in Afterschool Snacks *Offered* to Students

Rank	Food Group/Food(s)	Percentage Contribution to Average Amount Offered: All Schools
	Added Sugars	
1	Crackers and pretzels	21.0
2	Skim or nonfat milk, flavored	18.0
3	1% milk, flavored	15.0
4	Cookies, cakes, brownies	11.0
5	Cold cereal	5.5
6	Grain/fruit cereal bars, granola bars	5.3
7	Sweet rolls, donuts, toaster pastries	5.0
8	Muffins, sweet/quick breads	4.9
9	Yogurt	4.1
10	Peanut butter sandwiches	2.1
11	Applesauce	1.2

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research, Inc. are weighted to be representative of all public schools offering the National School Lunch Program and providing reimbursable afterschool snacks.

Note: Table is limited to foods contributing to at least 1 percent of nutrient for all schools. See Appendix Table C.1 for a detailed listing of food items included in each group.

APPENDIX K

SUPPLEMENTARY TABLES FOR CHAPTER 11

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TABLES

Table K.1. Average Calorie and Nutrient Content of National School Lunch Program Lunches *Offered* in SY 2009–2010 and SY 2004–2005

	SY 2009–2010 (SNDA-IV)		SY 2004–2005 (SNDA-III)		Difference (SY 2009–2010 – SY 2004–2005)	
	Average	SE	Average	SE	Average	SE
Elementary Schools						
Calories	726	7.3	741	9.2	–15	11.7
Total Fat (g)	26	0.4	28	0.6	–2*	0.7
Saturated Fat (g)	8	0.1	9	0.2	–1*	0.2
Carbohydrate (g)	97	1.2	96	1.3	1	1.8
Protein (g)	30	0.2	30	0.4	0	0.4
Percentage of Calories from Total Fat (%)	31.9	0.30	33.6	0.41	–1.7*	0.51
Percentage of Calories from Saturated Fat (%)	10.0	0.10	10.9	0.13	–0.9*	0.16
Vitamin A (mcg RE)	453	12.6	388	16.0	65*	20.4
Vitamin C (mg)	32	1.1	32	1.8	0	2.1
Calcium (mg)	529	4.2	531	7.3	–2	8.4
Iron (mg)	4.4	0.05	4.5	0.06	–0.1	0.08
Cholesterol (mg)	56	1.0	62	1.5	–6*	1.8
Sodium (mg)	1395	17.8	1377	28.8	18	33.9
Dietary Fiber (g/1,000 kcal)	10	0.1	9	0.1	1*	0.1
Number of Schools	**318**		**145**			
Secondary Schools						
Calories	815	9.8	837	14.4	–22	17.4
Total Fat (g)	30	0.5	32	0.7	–2*	0.9
Saturated Fat (g)	9	0.1	10	0.2	–1*	0.2
Carbohydrate (g)	108	1.4	108	2.3	0	2.7
Protein (g)	33	0.3	33	0.4	0	0.5
Percentage of Calories from Total Fat (%)	32.3	0.30	34.2	0.47	–1.9*	0.56
Percentage of Calories from Saturated Fat (%)	10.0	0.09	10.7	0.13	–0.7*	0.16
Vitamin A (mcg RE)	456	9.6	389	16.5	67*	19.1
Vitamin C (mg)	38	1.4	37	2.1	1	2.5
Calcium (mg)	559	4.5	548	8.3	11	9.4
Iron (mg)	5.1	0.06	5.1	0.09	0	0.108
Cholesterol (mg)	64	1.1	70	1.6	–6*	1.9
Sodium (mg)	1601	22.9	1554	32.9	47	40.1
Dietary Fiber (g/1,000 kcal)	10	0.1	9	0.2	1*	0.2
Number of Schools	**566**		**252**			

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010 and School Nutrition Dietary Assessment Study–III, Menu Survey, school year 2004–2005 (Gordon et al. 2007, Table VI.2 and F–VI.1). Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

SY = school year; SE = standard error; RE = Retinol equivalents.

*Average is significantly different from SY 2009–2010 at the .05 level.

Table K.1a. Average Calorie and Nutrient Content of National School Lunch Program Lunches *Offered* in SY 2009–2010 and SY 2004–2005, Estimated Without SNDA-IV Adjustment for Fruits and Vegetables

	SY 2009–2010 (SNDA-IV)		SY 2004–2005 (SNDA-III)		Difference (SY 2009–2010 – SY 2004–2005)	
	Average	SE	Average	SE	Average	SE
Elementary Schools						
Calories	719	6.6	741	9.2	-22	11.3
Total Fat (g)	26	0.4	28	0.6	-2*	0.7
Saturated Fat (g)	8	0.1	9	0.2	-1*	0.2
Carbohydrate (g)	96	1.0	96	1.3	0	1.6
Protein (g)	30	0.2	30	0.4	0	0.4
Percentage of Calories from Total Fat (%)	32.0	0.30	33.6	0.41	-1.6*	0.5
Percentage of Calories from Saturated Fat (%)	10.1	0.10	10.9	0.13	-0.8*	0.2
Vitamin A (mcg RE)	440	10.4	388	16.0	52*	19.1
Vitamin C (mg)	31	1.1	32	1.8	-1	2.1
Calcium (mg)	527	4.0	531	7.3	-4	8.3
Iron (mg)	4.4	0.05	4.5	0.06	-0.1	0.1
Cholesterol (mg)	56	1.0	62	1.5	-6*	1.8
Sodium (mg)	1,383	16.8	1377	28.8	6	33.3
Dietary Fiber (g/1,000 kcal)	10	0.1	9	0.1	1*	0.1
Number of Schools	**318**		**145**			
Secondary Schools						
Calories	807	9.6	837	14.4	-30	17.3
Total Fat (g)	29	0.5	32	0.7	-3*	0.9
Saturated Fat (g)	9	0.1	10	0.2	-1*	0.2
Carbohydrate (g)	107	1.4	108	2.3	-1	2.7
Protein (g)	33	0.3	33	0.4	0	0.5
Percentage of Calories from Total Fat (%)	32.4	0.30	34.2	0.47	-1.8*	0.6
Percentage of Calories from Saturated Fat (%)	10.0	0.09	10.7	0.13	-0.7*	0.2
Vitamin A (mcg RE)	447	9.3	389	16.5	58*	18.9
Vitamin C (mg)	37	1.3	37	2.1	0	2.5
Calcium (mg)	556	4.5	548	8.3	8	9.4
Iron (mg)	5.0	0.06	5.1	0.09	-0.1	0.1
Cholesterol (mg)	64	1.1	70	1.6	-6*	1.9
Sodium (mg)	1586	22.4	1554	32.9	32	39.8
Dietary Fiber (g/1,000 kcal)	10	0.1	9	0.2	1*	0.2
Number of Schools	**566**		**252**			

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010 and School Nutrition Dietary Assessment Study-III, Menu Survey, school year 2004–2005 (Gordon et al. 2007, Table VI.2 and F-VI.1). Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

SY = school year; SE = standard error; RE = Retinol equivalents.

*Average is significantly different from SY 2009–2010 at the .05 level.

Table K.2. Average Calorie and Nutrient Content of National School Lunch Program Lunches *Served* in SY 2009–2010, SY 2004–2005 and SY 1998–1999

	SY 2009–2010 (SNDA–IV)		SY 2004–2005 (SNDA–III)		SY 1998–1999 (SNDA–II)	
	Average	SE	Average	SE	Average	SE
Elementary Schools						
Calories	661	6.5	676	8.3	695*	6.9
Total Fat (g)	23	0.4	25*	0.5	26*	0.3
Saturated Fat (g)	7	0.1	8*	0.1	9*	0.2
Carbohydrate (g)	88	0.9	88	1.3	89	1.1
Protein (g)	28	0.2	28	0.3	29*	0.2
Percentage of Calories from Total Fat (%)	31.5	0.29	32.9*	0.4	33.1*	0.3
Percentage of Calories from Saturated Fat (%)	10.1	0.10	10.8*	0.1	11.9*	0.1
Vitamin A(mcg RE)	351	7.3	324*	10.0	437*	15.7
Vitamin C (mg)	23	0.8	22	1.0	27*	1.3
Calcium (mg)	481	4.9	483	6.7	478	4.0
Iron (mg)	4.2	0.04	4.3	0.1	4.4	0.1
Cholesterol (mg)	54	0.9	58*	1.2	65*	0.9
Sodium (mg)	1,324	17.3	1,278	22.3	1,259*	15.3
Dietary Fiber (g/1,000 kcal)	9	0.1	9	0.2	n.a.	n.a.
Number of Schools	**317**		**145**		**398**	
Secondary Schools						
Calories	708	8.4	765*	9.9	724	5.5
Total Fat (g)	26	0.5	31*	0.7	28*	0.3
Saturated Fat (g)	8	0.1	9*	0.2	10*	0.1
Carbohydrate (g)	92	1.2	96*	1.3	91	0.9
Protein (g)	30	0.3	29*	0.3	30	0.2
Percentage of Calories from Total Fat (%)	33.0	0.29	35.5*	0.4	34.5*	0.2
Percentage of Calories from Saturated Fat (%)	10.3	0.09	11.1*	0.1	12.1*	0.1
Vitamin A(mcg RE)	323	7.0	306	9.4	390*	10.1
Vitamin C (mg)	24	0.8	26	1.1	29*	0.8
Calcium (mg)	480	5.9	468	6.4	475	3.9
Iron (mg)	4.6	0.05	4.7	0.1	4.7*	0.0
Cholesterol (mg)	57	0.9	63*	1.0	68*	1.0
Sodium (mg)	1,458	19.5	1,470	26.5	1,382*	14.5
Dietary Fiber (g/1,000 kcal)	9	0.1	9	0.1	n.a.	n.a.
Number of Schools	**563**		**252**		**677**	

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010, and School Nutrition Dietary Assessment Study–III, Menu Survey, school year 2004–2005 and School Nutrition Dietary Assessment Study–II, Menu Survey, school year 1998–1999 (Gordon et al. 2007, Table VIII.3). Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

SY = school year; SE = standard error; RE = Retinol equivalents; n.a. = not available.

*Average is significantly different from SY 2009–2010 at the .05 level.

Table K.3. Average Calorie and Nutrient Content of National School Lunch Program Lunches *Served* in SY 2009–2010, SY 2004–2005, and SY 1998–1999, Relative to SMI Nutrient Standards and Related Benchmarks

		SY 2009–2010 (SNDA–IV)		SY 2004–2005 (SNDA–III)		SY 1998–1999 (SNDA–II)	
	Standard/ Recommendation	Average	SE	Average	SE	Average	SE
Elementary Schools							
Average Percentage of 1989 REA/RDA							
Calories	33%	34	0.3	34	0.4	35*	0.3
Protein	33%	100	1.0	99	1.4	105*	0.9
Vitamin A[a]	33%	54	1.1	50*	1.6	67*	2.5
Vitamin C	33%	50	1.6	49	2.2	59*	2.8
Calcium	33%	58	0.6	58	0.9	58	0.5
Iron	33%	40	0.4	41	0.6	44*	0.6
Average Percentage of Calories from:							
Total Fat	≤ 30%	31.5	0.29	32.9*	0.41	33.1*	0.30
Saturated Fat	< 10%	10.1	0.10	10.8*	0.13	11.9*	0.10
Average Amount							
Cholesterol	< 100 mg[b]	54	0.9	58*	1.2	65*	0.9
Sodium	< 800 mg[b]	1,324	17.3	1,278	22.3	1,259*	15.3
Number of Schools		**317**		**145**		**398**	
Secondary Schools							
Average Percentage of 1989 REA/RDA							
Calories	33%	29	0.3	31*	0.4	30*	0.2
Protein	33%	62	0.6	62	0.7	64*	0.4
Vitamin A[a]	33%	36	0.8	34	1.1	43*	1.1
Vitamin C	33%	45	1.5	48	2.0	54*	1.5
Calcium	33%	40	0.5	39	0.5	40	0.3
Iron	33%	34	0.4	35	0.4	35*	0.3
Average Percentage of Calories From:							
Total Fat	≤ 30%	33.0	0.29	35.5*	0.42	34.5*	0.20
Saturated Fat	< 10%	10.3	0.09	11.1*	0.13	12.1*	0.10
Average Amount							
Cholesterol	< 100 mg[b]	57	0.9	63*	1.0	68*	1.0
Sodium	< 800 mg[b]	1,458	19.5	1,470	26.7	1,382*	14.5
Number of Schools		**563**		**252**		**677**	

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010, and School Nutrition Dietary Assessment Study–III, Menu Survey, school year 2004–2005 and School Nutrition Dietary Assessment Study–II, Menu Survey, school year 1998–1999 (Gordon et al. 2007, Table VIII.2).

[a]In retinol equivalents (RE).

[b]Benchmarks are one–third of suggested maximum daily intake.

SY = school year; SE = standard error; SMI = School Meals Initiative for Healthy Children; REA= Recommended Energy Allowance; RDA = Recommended Dietary Allowance.

*Average is significantly different from SY 2009–2010 at the .05 level.

Table K.4. Proportion of Schools *Serving* National School Lunch Program Lunches in SY 2009–2010, SY 2004–2005, and SY 1998–1999 that Satisfied SMI Nutrient Standards and Related Benchmarks

		SY 2009–2010 (SNDA–IV)		SY 2004–2005 (SNDA–III)		SY 1998–1999 (SNDA–II)	
	Standard/ Recommendation	Average	SE	Average	SE	Average	SE
		Elementary Schools					
Calories	33% of 1989 REA	49.2	3.2	60	4.8	68*	2.9
Protein	33% of 1989 RDA	100	0.0	100	0.0	100	0.0
Vitamin A[a]	33% of 1989 RDA	89.5	2.1	91	2.5	98*	0.9
Vitamin C	33% of 1989 RDA	70.7	3.0	75	4.6	86*	2.1
Calcium	33% of 1989 RDA	99.6	0.3	98	1.2	100	0.0
Iron	33% of 1989 RDA	87.8	2.1	96*	1.8	93*	1.6
Percentage of Calories from Total Fat	≤ 30%	38.8	3.2	25.6*	4.44	21.0*	2.5
Percentage of Calories from Saturated Fat	< 10%	53.0	3.3	33.7*	4.71	15.0*	2.2
Cholesterol	< 100 mg[b]	99	0.7	99	0.6	99	0.6
Sodium	< 800 mg[b]	1	0.7	1	0.6	1	0.6
Number of Schools		**317**		**145**		**398**	
		Secondary Schools					
Calories	33% of 1989 REA	21.6	2.7	30	4.4	20	1.9
Protein	33% of 1989 RDA	100	0.0	100	0.0	100	0.0
Vitamin A[a]	33% of 1989 RDA	53.9	3.0	40*	4.9	65*	2.2
Vitamin C	33% of 1989 RDA	62.9	2.9	71	4.3	79*	1.9
Calcium	33% of 1989 RDA	84.6	2.0	82	3.1	86	1.6
Iron	33% of 1989 RDA	54.0	2.8	61	4.5	60	2.3
Percentage of Calories from Total Fat	≤ 30%	26.5	2.7	12.1*	2.83	14.0*	1.6
Percentage of Calories from Saturated Fat	< 10%	45.8	3.0	24.4*	3.85	13.0*	1.6
Cholesterol	< 100 mg[b]	99	0.6	100	0.5	96*	0.9
Sodium	< 800 mg[b]	1	0.4	0*	0.2	1	0.5
Number of Schools		**563**		**252**		**677**	

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010, and School Nutrition Dietary Assessment Study–III, Menu Survey, school year 2004–2005 and School Nutrition Dietary Assessment Study–II, Menu Survey, school year 1998–1999 (Gordon et al. 2007, Table VIII.1).

Note: Standard errors for SY 1998–1999 are estimated assuming a design effect of 1.5.

[a]In retinol equivalents (RE).

[b]Benchmarks are one–third of suggested maximum daily intake.

SY = school year; SE = standard error; SMI = School Meals Initiative for Healthy Children; REA= Recommended Energy Allowance; RDA = Recommended Dietary Allowance.

*Proportion is significantly different from SY 2009–2010 at the .05 level.

Table K.5. Distribution of the Total Fat, Saturated Fat and Sodium Content of National School Lunch Program Lunches *Served* in SY 2009–2010, SY 2004–2005 and SY 1998–1999

	Percentage of Schools		
	SY 2009–2010 (SNDA–IV)	SY 2004–2005 (SNDA–III)	SY 1998–1999 (SNDA–II)
Elementary Schools			
Percentage of Calories from Total Fat			
No More than 30%	39	26*	21*
30.1% – 34.0%	39	35	41
34.1 – 38.0%	15	32	28
More than 38.0%	8	7	11
Percentage of Calories from Saturated Fat			
Less than 10%	53	34*	15*
10.1 – 12.0%	38	45	38
12.1 – 14.0%	7	20	31
More than 14.0%	2	0	15
Sodium			
800 mg or less	1	1	1
801 – 1,000 mg	8	8	8
More than 1,000 mg	91	91	92
Number of Schools	**317**	**145**	**398**
Secondary Schools			
Percentage of Calories from Total Fat			
No More than 30%	26	12*	14*
30.1% – 34.0%	34	24	34
34.1 – 38.0%	24	38	33
More than 38.0%	15	26	19
Percentage of Calories from Saturated Fat			
Less than 10%	46	24*	13*
10.1 – 12.0%	44	51	36
12.1 – 14.0%	9	24	36
More than 14.0%	1	1	25
Sodium			
800 mg or Less	1	0	1
801 – 1,000 mg	5	6	3
More than 1,000 mg	94	94	97
Number of Schools	**563**	**252**	**677**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010, and School Nutrition Dietary Assessment Study–III, Menu Survey, school year 2004–2005 and School Nutrition Dietary Assessment Study–II, Menu Survey, school year 1998–1999 (Gordon et al. 2007, Table VIII.4 and VIII.5).

Note: Shaded rows represent SMI standards (fat and saturated fat) or National Research Council recommendation (sodium; one–third of recommended daily maximum).

SY = school year.

*Proportion is significantly different from SY 2009–2010 at the .05 level. Statistical significance tests were performed for the shaded rows only.

Table K.6. Distribution of Fat, Carbohydrate, Cholesterol, and Sodium in Average Lowest-Percent Fat Lunches *Offered* in SY 2009–2010, SY 2004–2005, SY 1998–1999, and SY 1991–1992: Elementary Schools

	Percentage of Schools			
	SY 2009–2010 (SNDA-IV)	SY 2004–2005 (SNDA-III)	SY 1998–1999 (SNDA-II)	SY 1991–1992 (SNDA-I)
Percentage of Calories from Total Fat				
No More than 30%	88	93	82	34*
30.1% – 34.0%	7	5	14	32
34.1 – 38.0%	4	1	3	21
More than 38.0%	1	1	1	13
Percentage of Calories from Saturated Fat				
Less than 10%	89	85	65*	16*
10.1 – 12.0%	8	14	23	20
12.1 – 14.0%	2	1	8	31
More than 14.0%	0	0	4	32
Percentage of Calories from Carbohydrate				
Less than 45%	0	0	2	10
45–55%	19	19	33	72
More than 55%	81	81	66*	18*
Cholesterol				
Less than 100 mg	99	100	100	97
100 mg or More	1	<1	<1	3
Sodium				
800 mg or Less	15	15	21	<1*
801 – 1,000 mg	21	12	38	7
More than 1,000 mg	64	66	41	93
Number of Schools	**318**	**145**	**398**	**260**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010, and School Nutrition Dietary Assessment Study–III, Menu Survey, school year 2004–2005, and School Nutrition Dietary Assessment Study–II, Menu Survey, school year 1998–1999, and School Nutrition Dietary Assessment Study–I, menu data for public elementary schools, school year 1991–1992 (Gordon et al. 2007, Table VIII.6).

Note: Shaded rows represent SMI standards (fat and saturated fat only) or National Research Council recommendation (for cholesterol and sodium, one third of recommendation for daily intake).

SY = school year.

*Proportion is significantly different from SY 2009–2010 at the .05 level. Statistical significance tests were performed only for shaded rows.

Table K.7. Distribution of Fat, Carbohydrate, Cholesterol, and Sodium in Average Lowest-Percent Fat Lunches *Offered* in SY 2009–2010, SY 2004–2005, SY 1998–1999, and SY 1991–1992: Secondary Schools

	Percentage of Schools			
	SY 2009–2010 (SNDA-IV)	SY 2004–2005 (SNDA-III)	SY 1998–1999 (SNDA-II)	SY 1991–1992 (SNDA-I)
Percentage of Calories from Total Fat				
No More than 30%	92	86*	91	71*
30.1% – 34.0%	6	12	6	15
34.1 – 38.0%	3	2	2	9
More than 38.0%	0	0	1	5
Percentage of Calories from Saturated Fat				
Less than 10%	92	94	79*	47*
10.1 – 12.0%	7	6	13	18
12.1 – 14.0%	1	1	5	25
More than 14.0%	0	0	3	11
Percentage of Calories from Carbohydrate				
Less than 45%	0	<1	2	4
45–55%	12	21	20	40
More than 55%	87	79*	79*	56*
Cholesterol				
Less than 100 mg	99	97	99	97
100 mg or More	1	3	1	3
Sodium				
800 mg or Less	10	8	14	1*
801 – 1,000 mg	14	16	29	4
More than 1,000 mg	76	76	56	95
Number of Schools	**566**	**252**	**677**	**234**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010, and School Nutrition Dietary Assessment Study–III, Menu Survey, school year 2004–2005, and School Nutrition Dietary Assessment Study–II, Menu Survey, school year 1998–1999, and School Nutrition Dietary Assessment Study–I, menu data for public elementary schools, school year 1991–1992 (Gordon et al. 2007, Table VIII.7).

Note: Shaded rows represent SMI standards (fat and saturated fat only) or National Research Council recommendation (for cholesterol and sodium, one third of recommendation for daily intake).

SY = school year.

*Proportion is significantly different from SY 2009–2010 at the .05 level. Statistical significance tests were performed only for shaded rows.

Table K.8. Distribution of Fat, Cholesterol, and Sodium in Average Lowest-Percent Saturated Fat Lunches *Offered* in SY 2009–2010 and SY 2004–2005: Elementary Schools

	Percentage of Schools		
	SY 2009–2010 (SNDA-IV)	SY 2004–2005 (SNDA-III)	Difference (SY 2009–2010 – SY 2004–2005)
Percentage of Calories from Total Fat			
No More than 30%	77	79	-2
30.1% – 34.0%	15	16	-1
34.1 – 38.0%	6	3	3
More than 38.0%	2	2	0
Percentage of Calories from Saturated Fat			
Less than 10%	94	90	4
10.1 – 12.0%	4	10	-6
12.1 – 14.0%	2	0	2
More than 14.0%	0	0	0
Percentage of Calories from Carbohydrate			
Less than 45%	1	0	1
45–55%	24	27	-3
More than 55%	76	73	3
Cholesterol			
Less than 100 mg	99	100	-1
100 mg or More	1	0	1
Sodium			
800 mg or Less	18	14	4
801 – 1,000 mg	25	33	-8
More than 1,000 mg	57	53	4
Number of Schools	**318**	**145**	

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010 and School Nutrition Dietary Assessment Study–III, Menu Survey, school year 2004–2005 (Gordon et al. 2007, Table VIII.9). Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Shaded rows represent SMI standards (fat and saturated fat only) or National Research Council recommendation (for cholesterol and sodium, one third of recommendation for daily intake). None of the differences between SY 2009–2010 and other years were statistically significant.

SY = school year.

Table K.9. Distribution of Fat, Cholesterol, and Sodium in Average Lowest-Percent Saturated Fat Lunches *Offered* in SY 2009–2010 and SY 2004–2005: Secondary Schools

	Percentage of Schools		
	SY 2009–2010 (SNDA–IV)	SY 2004–2005 (SNDA–III)	Difference (SY 2009–2010 – SY 2004–2005)
Percentage of Calories from Total Fat			
No More than 30%	86	81	5
30.1% – 34.0%	8	15	–7
34.1 – 38.0%	4	3	1
More than 38.0%	1	2	–1
Percentage of Calories from Saturated Fat			
Less than 10%	95	96	–1
10.1 – 12.0%	4	4	0
12.1 – 14.0%	1	1	0
More than 14.0%	0	0	0
Percentage of Calories from Carbohydrate			
Less than 45%	1	0	1
45–55%	15	24	–9
More than 55%	85	76	9*
Cholesterol			
Less than 100 mg	99	99	0
100 mg or More	1	1	0
Sodium			
800 mg or Less	10	16	–6
801 – 1,000 mg	25	25	0
More than 1,000 mg	65	59	6
Number of Schools	**566**	**252**	

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010 and School Nutrition Dietary Assessment Study–III, Menu Survey, school year 2004–2005 (Gordon et al. 2007, Table VIII.9). Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Shaded rows represent SMI standards (fat and saturated fat only) or National Research Council recommendation (for cholesterol and sodium, one third of recommendation for daily intake).

SY = school year.

*Difference is statistically significantly different at the .05 level. Statistical significance tests were performed only for shaded rows.

Table K.10. Average Calorie and Nutrient Content of School Breakfast Program Breakfasts *Served* in SY 2009–2010, SY 2004–2005 and SY 1998–1999

	SY 2009–2010 (SNDA–IV)		SY 2004–2005 (SNDA–III)		SY 1998–1999 (SNDA–II)	
	Average	SE	Average	SE	Average	SE
Elementary Schools						
Calories	434	5.7	465*	11.5	447	5.7
Total Fat (g)	12	0.2	13	0.5	13*	0.3
Saturated Fat (g)	4	0.1	5*	0.2	5*	0.1
Carbohydrate (g)	69	1.0	73	1.8	68	1.0
Protein (g)	15	0.2	15	0.3	15	0.2
Percentage of Calories from Total Fat (%)	23.8	0.33	24.8	0.5	26.5*	0.4
Percentage of Calories from Saturated Fat (%)	8.6	0.15	8.9	0.2	10.1*	0.2
Vitamin A(mcg RE)	245	5.2	231	5.8	254	4.4
Vitamin C (mg)	28	0.8	29	1.8	37*	1.1
Calcium (mg)	382	6.0	375	7.7	354*	4.5
Iron (mg)	4.5	0.11	4.2*	0.1	3.8*	0.1
Cholesterol (mg)	44	1.6	37*	1.6	43	2.9
Sodium (mg)	569	11.1	631*	28.1	574	10.5
Dietary Fiber (g/1,000 kcal)	6	0.1	6	0.2	n.a.	n.a.
Number of Schools	**282**		**120**		**317**	
Secondary Schools						
Calories	504	10.9	545*	17.0	483	6.3
Total Fat (g)	15	0.4	17*	0.5	15	0.3
Saturated Fat (g)	5	0.1	6*	0.2	6*	0.1
Carbohydrate (g)	77	1.6	83	3.9	71*	1.1
Protein (g)	17	0.4	17	0.4	16*	0.2
Percentage of Calories from Total Fat (%)	26.3	0.32	27.8*	0.6	28.3*	0.4
Percentage of Calories from Saturated Fat (%)	9.0	0.14	9.6	0.3	10.5*	0.2
Vitamin A(mcg RE)	238	6.0	248	16.4	226	4.9
Vitamin C (mg)	33	1.1	32	1.9	39*	1.0
Calcium (mg)	381	8.9	386	12.1	350*	5.3
Iron (mg)	4.6	0.11	5.0	0.7	3.8*	0.1
Cholesterol (mg)	55	2.4	52	3.1	55	2.2
Sodium (mg)	696	16.9	821*	39.4	672	12.8
Dietary Fiber (g/1,000 kcal)	6	0.1	5*	0.1	n.a.	n.a.
Number of Schools	**520**		**211**		**487**	

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010, and School Nutrition Dietary Assessment Study–III, Menu Survey, school year 2004–2005 and School Nutrition Dietary Assessment Study–II, Menu Survey, school year 1998–1999 (Gordon et al. 2007, Table VIII.13).

SY = school year; SE = standard error; RE = Retinol equivalents; n.a. = not available.

*Average is significantly different from SY 2009–2010 at the .05 level.

Table K.11. Average Calorie and Nutrient Content of School Breakfast Program Breakfasts *Served* in SY 2009–2010, SY 2004–2005 and SY1998–1999, Relative to SMI Nutrient Standards and Related Benchmarks

		SY 2009–2010 (SNDA–IV)		SY 2004–2005 (SNDA–III)		SY 1998–1999 (SNDA–II)	
	Standard/ Recommendation	Average	SE	Average	SE	Average	SE
Elementary Schools							
Average Percentage of 1989 REA/RDA							
Calories	25%	22	0.3	24*	0.6	23*	0.3
Protein	25%	54	0.9	54	1.3	52	0.7
Vitamin A[a]	25%	38	0.8	36	0.9	39	0.7
Vitamin C	25%	62	1.9	63	4.0	81*	2.5
Calcium	25%	46	0.8	45	1.0	43*	0.6
Iron	25%	44	1.1	41	1.1	37*	0.7
Average Percentage of Calories from:							
Total Fat	≤ 30%	23.8	0.3	24.8	0.5	26.5*	0.4
Saturated Fat	< 10%	8.6	0.2	8.9	0.2	10.1*	0.2
Average Amount							
Cholesterol	< 75 mg[b]	44	1.6	37*	1.6	43	2.9
Sodium	< 600 mg[b]	569	11.1	631*	28.1	574	10.5
Number of Schools		**282**		**120**		**317**	
Secondary Schools							
Average Percentage of 1989 REA/RDA							
Calories	25%	21	0.5	22	0.7	20	0.3
Protein	25%	36	0.8	36	0.8	34*	0.5
Vitamin A[a]	25%	27	0.7	28	1.8	25*	0.5
Vitamin C	25%	61	2.0	60	3.8	72*	1.9
Calcium	25%	32	0.8	32	1.0	29*	0.4
Iron	25%	34	0.8	37	5.2	28*	0.7
Average Percentage of Calories from:							
Total Fat	≤ 30%	26.3	0.3	27.8*	0.6	28.3*	0.4
Saturated Fat	< 10%	9.0	0.1	9.6	0.3	10.5*	0.2
Average Amount							
Cholesterol	< 75 mg[b]	55	2.4	52	3.1	55	2.2
Sodium	< 600 mg[b]	696	16.9	821*	39.4	672	12.8
Number of Schools		**520**		**211**		**487**	

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010, and School Nutrition Dietary Assessment Study–III, Menu Survey, school year 2004–2005 and School Nutrition Dietary Assessment Study–II, Menu Survey, school year 1998–1999 (Gordon et al. 2007, Table VIII.12).

[a]In retinol equivalents (RE).

[b]Benchmarks are one–quarter of suggested maximum daily intake.

SY = school year; SE = standard error; SMI = School Meals Initiative for Healthy Children; REA = Recommended Energy Allowance; RDA = Recommended Dietary Allowance.

*Average is significantly different from SY 2009–2010 at the .05 level.

Table K.12. Proportion of Schools *Serving* School Breakfast Program Breakfasts in SY 2009–2010, SY 2004–2005, and SY 1998–1999 that Satisfied SMI Nutrient Standards and Related Benchmarks

		SY 2009–2010 (SNDA–IV)		SY 2004–2005 (SNDA–III)		SY 1998–1999 (SNDA–II)	
	Standard/ Recommendation	Average	SE	Average	SE	Average	SE
Elementary Schools							
Calories		23.1	2.8	36*	5.8	22	2.8
Protein	25% of 1989 RDA	99.0	0.7	98	1.7	100	0.0
Vitamin A[a]	25% of 1989 RDA	89.7	2.1	89	3.1	95*	1.5
Vitamin C	25% of 1989 RDA	94.9	1.3	87*	3.7	98	1.0
Calcium	25% of 1989 RDA	98.6	0.7	96	2.1	99	0.7
Iron	25% of 1989 RDA	92.2	1.9	95	2.2	93	1.8
Percentage of Calories from Total Fat	≤ 30%	88.6	2.1	88	3.2	75*	3.0
Percentage of Calories from Saturated Fat	< 10%	78.4	2.8	71	5.0	54*	3.4
Cholesterol	< 75 mg[b]	91	1.7	95	1.8	90	2.1
Sodium	< 600 mg[b]	63	3.1	51	5.6	63	3.3
Number of Schools		**282**		**120**		**317**	
Secondary Schools							
Calories	25% of 1989 REA	12.5	2.0	24	6.8	8	1.5
Protein	25% of 1989 RDA	87.1	2.2	92	2.1	95*	1.2
Vitamin A[a]	25% of 1989 RDA	48.8	3.1	58	5.1	48	2.8
Vitamin C	25% of 1989 RDA	92.8	1.4	92	2.3	95	1.2
Calcium	25% of 1989 RDA	78.2	2.4	85	2.8	78	2.3
Iron	25% of 1989 RDA	77.6	2.3	78	3.7	57*	2.7
Percentage of Calories from Total Fat	≤ 30%	79.8	2.4	67*	5.2	64*	2.7
Percentage of Calories from Saturated Fat	< 10%	70.9	2.7	65	4.8	46*	2.8
Cholesterol	< 75 mg[b]	80	2.3	82	3.5	76	2.4
Sodium	< 600 mg[b]	40	3.1	31	4.4	42	2.7
Number of Schools		**563**		**211**		**487**	

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010, and School Nutrition Dietary Assessment Study–III, Menu Survey, school year 2004–2005 and School Nutrition Dietary Assessment Study–II, Menu Survey, school year 1998–1999 (Gordon et al. 2007, Table VIII.11).

[a]In retinol equivalents (RE).

[b]Benchmarks are one–quarter of suggested maximum daily intake.

SY = school year; SE = standard error; SMI = School Meals Initiative for Healthy Children; REA = Recommended Energy Allowance; RDA = Recommended Dietary Allowance.

*Proportion is significantly different from SY 2009–2010 at the .05 level.

Table K.13. Distribution of the Total Fat, Saturated Fat and Sodium Content of School Breakfast Program Breakfasts *Served* in SY 2009–2010, SY 2004–2005 and SY 1998–1999

	Percentage of Schools		
	SY 2009–2010 (SNDA–IV)	SY 2004–2005 (SNDA–III)	SY 1998–1999 (SNDA–II)
Elementary Schools			
Percentage of Calories from Total Fat			
No More than 30%	89	88	75*
30.1% – 34.0%	8	8	15
34.1 – 38.0%	2	4	8
More than 38.0%	1	0	2
Percentage of Calories from Saturated Fat			
Less than 10%	78	71	54*
10.1 – 12.0%	16	24	26
12.1 – 14.0%	4	5	12
More than 14.0%	2	1	8
Sodium			
600 mg or Less	63	51	63
601 – 750 mg	22	28	28
More than 750 mg	14	22	9
Number of Schools	**282**	**120**	**317**
Secondary Schools			
Percentage of Calories from Total Fat			
No More than 30%	80	67*	64*
30.1% – 34.0%	13	20	21
34.1 – 38.0%	6	9	8
More than 38.0%	2	4	7
Percentage of Calories from Saturated Fat			
Less than 10%	71	65	46*
10.1 – 12.0%	22	22	30
12.1 – 14.0%	5	8	14
More than 14.0%	2	5	11
Sodium			
600 mg or Less	40	31	42
601 – 750 mg	25	18	31
More than 750 mg	35	51	28
Number of Schools	**520**	**211**	**487**

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010, and School Nutrition Dietary Assessment Study–III, Menu Survey, school year 2004–2005 and School Nutrition Dietary Assessment Study–II, Menu Survey, school year 1998–1999 (Gordon et al. 2007, Table VIII.14 and VIII.15).

Note: Shaded rows represent SMI standards (fat and saturated fat) or National Research Council recommendation (sodium; one–quarter of recommended daily maximum).

SY = school year.

*Proportion is significantly different from SY 2009–2010 at the .05 level. Statistical significance tests were performed for the shaded rows only.

Table K.14. Proportion of Schools *Offering* National School Lunch Program Lunches in SY 2009–2010 and SY 2004–2005 that Satisfied SMI Nutrient Standards and Related Benchmarks

		SY 2009–2010 (SNDA–IV)		SY 2004–2005 (SNDA–III)		Difference (SY 2009–2010 – SY 2004–2005)	
	Standard/ Recommendation	Average	SE	Average	SE	Average	SE
Elementary Schools							
Calories	33% of 1989 REA	75.5	2.9	79.4	4.1	–3.9	5.0
Protein	33% of 1989 RDA	100.0	0	100.0	0.0	0	0.0
Vitamin A[a]	33% of 1989 RDA	97.4	1.3	97.5	1.6	–0.1	2.1
Vitamin C	33% of 1989 RDA	82.7	2.6	85.0	3.6	–2.3	4.5
Calcium	33% of 1989 RDA	100.0	0	99.0	1.0	1	1.0
Iron	33% of 1989 RDA	92.7	1.8	95.1	2.2	–2.4	2.8
Percentage of Calories from Total Fat	≤ 30%	35.1	3.1	21.8	4.2	13.3*	5.2
Percentage of Calories from Saturated Fat	< 10%	49.6	3.3	27.1	4.5	22.5*	5.6
Cholesterol	< 100 mg[b]	99	0.5	96	2.0	3	2.1
Sodium	< 800 mg[b]	1	0.4	0	0.0	1*	0.4
Number of Schools		**318**		**145**			
Secondary Schools							
Calories	33% of 1989 REA	46.7	2.9	55.5	3.8	–8.7	4.8
Protein	33% of 1989 RDA	100.0	0	100.0	0.0	0.0	0.0
Vitamin A[a]	33% of 1989 RDA	87.2	2.1	70.9	3.5	16.3*	4.1
Vitamin C	33% of 1989 RDA	89.4	1.8	92.8	2.0	–3.4	2.7
Calcium	33% of 1989 RDA	99.3	0.6	98.3	1.0	1.0	1.2
Iron	33% of 1989 RDA	72.0	2.7	71.2	3.5	0.8	4.4
Percentage of Calories from Total Fat	≤ 30%	34.5	3.0	15.3	2.8	19.2*	4.1
Percentage of Calories from Saturated Fat	< 10%	54.3	2.9	29.7	3.5	24.7*	4.6
Cholesterol	< 100 mg[b]	96	1.7	94.0	1.8	2.0	2.5
Sodium	< 800 mg[b]	0	0.1	0.0	0.0	0.0	0.1
Number of Schools		**566**		**252**			

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010 and School Nutrition Dietary Assessment Study–III, Menu Survey, school year 2004–2005 (Gordon et al. 2007, Table VI.3). Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Standard errors for SY 2004–2005 are estimated assuming a design effect of 1.5.

[a]In retinol equivalents (RE).

[b]Benchmarks are one–third of suggested maximum daily intake.

SY = school year; SE = standard error; SMI = School Meals Initiative for Healthy Children; REA = Recommended Energy Allowance; RDA = Recommended Dietary Allowance.

*Difference between SY 2009–2010 and SY 2004–2005 is significantly different from zero at the .05 level.

Table K.15. Average Calorie and Nutrient Content of School Breakfast Program Breakfasts *Offered* in SY 2009–2010 and SY 2004–2005

	SY 2009–2010 (SNDA–IV)		SY 2004–2005 (SNDA–III)		Difference (SY 2009–2010 – SY 2004–2005)	
	Average	SE	Average	SE	Average	SE
Elementary Schools						
Calories	458	6.5	463	7.6	–5	10.0
Total Fat (g)	11	0.3	12	0.4	–1*	0.5
Saturated Fat (g)	4	0.1	4	0.1	0	0.1
Carbohydrate (g)	75	1.0	75	1.6	0	1.9
Protein (g)	16	0.2	15	0.2	1*	0.3
Percentage of Calories from Total Fat (%)	22.2	0.34	23.3	0.59	–1.1	0.7
Percentage of Calories from Saturated Fat (%)	8.2	0.16	8.6	0.24	–0.4	0.3
Vitamin A (mcg RE)	278	5.2	251	7.5	27*	9.1
Vitamin C (mg)	32	0.8	30	1.5	2	1.7
Calcium (mg)	428	4.7	409	6.6	19*	8.1
Iron (mg)	5.0	0.14	4.3	0.12	0.7*	0.2
Cholesterol (mg)	40	1.7	35	1.7	5*	2.4
Sodium (mg)	549	12.0	573	14.4	–24	18.7
Dietary Fiber (g/1,000 kcal)	7	0.1	6	0.2	1*	0.2
Number of Schools	**282**		**120**			
Secondary Schools						
Calories	515	9.1	510	9.8	5	13.4
Total Fat (g)	14	0.4	15	0.5	–1	0.6
Saturated Fat (g)	5	0.1	5	0.2	0	0.2
Carbohydrate (g)	83	1.4	80	1.6	3	2.1
Protein (g)	17	0.3	16	0.3	1*	0.4
Percentage of Calories from Total Fat (%)	23.4	0.30	25.3	0.50	–1.9*	0.6
Percentage of Calories from Saturated Fat (%)	8.4	0.13	9.2	0.20	–0.8*	0.2
Vitamin A (mcg RE)	280	4.6	265	5.7	15*	7.3
Vitamin C (mg)	35	1.2	35	1.6	0	2.0
Calcium (mg)	441	6.9	431	8.2	10	10.7
Iron (mg)	5.2	0.15	4.6	0.14	0.6*	0.2
Cholesterol (mg)	46	1.8	43	2.4	3	3.0
Sodium (mg)	637	17.7	657	18.6	–20	25.7
Dietary Fiber (g/1,000 kcal)	6	0.1	6	0.2	0	0.2
Number of Schools	**521**		**221**			

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010 and School Nutrition Dietary Assessment Study–III, Menu Survey, school year 2004–2005 (Gordon et al. 2007, Table VII.2 and F–VII.1). Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

SY = school year; SE = standard error; RE = Retinol equivalents.

*Average is significantly different from SY 2009–2010 at the .05 level.

Table K.16. Proportion of Schools *Offering* School Breakfast Program Breakfasts in SY 2009–2010 and SY 2004–2005 that Satisfied SMI Nutrient Standards and Related Benchmarks

		SY 2009–2010 (SNDA–IV)		SY 2004–2005 (SNDA–III)		Difference (SY 2009–2010 – SY 2004–2005)	
	Standard/ Recommendation	Average	SE	Average	SE	Average	SE
Elementary Schools							
Calories	25% of 1989 REA	24.3	2.9	30.1	5.1	-5.8	5.9
Protein	25% of 1989 RDA	100.0	0	100.0	0.0	0	0.0
Vitamin A[a]	25% of 1989 RDA	99.1	1.0	96.6	2.0	2.5	2.3
Vitamin C	25% of 1989 RDA	96.9	0.1	92.9	2.9	4	2.9
Calcium	25% of 1989 RDA	100.0	0	99.0	1.1	1	1.1
Iron	25% of 1989 RDA	93.8	1.6	97.8	1.6	-4	2.3
Percentage of Calories from Total Fat	≤ 30%	94.6	1.6	90.7	3.2	3.9	3.6
Percentage of Calories from Saturated Fat	< 10%	81.1	2.7	75.8	4.8	5.3	5.5
Cholesterol	< 75 mg[b]	93	1.8	96	2.2	-3	2.8
Sodium	< 600 mg[b]	75	3.1	67	5.3	8	6.1
Number of Schools		**318**		**120**			
Secondary Schools							
Calories	25% of 1989 REA	13.7	2.1	11.5	2.7	2.2	3.4
Protein	25% of 1989 RDA	97.8	0.9	98.4	1.1	-0.6	1.4
Vitamin A[a]	25% of 1989 RDA	81.5	2.3	80.0	3.4	1.5	4.1
Vitamin C	25% of 1989 RDA	97.2	0.9	97.5	1.3	-0.3	1.6
Calcium	25% of 1989 RDA	98.6	0.9	99.8	0.4	-1.2	1.0
Iron	25% of 1989 RDA	87.8	2.0	79.3	3.4	8.5*	4.0
Percentage of Calories from Total Fat	≤ 30%	90.9	1.8	83.4	3.1	7.5*	3.6
Percentage of Calories from Saturated Fat	< 10%	81.6	2.3	72.2	3.8	9.4*	4.4
Cholesterol	< 75 mg[b]	89	1.9	89.2	2.6	-0.2	3.2
Sodium	< 600 mg[b]	57	3.1	42.7	4.2	14.3*	5.2
Number of Schools		**566**		**211**			

Source: School Nutrition Dietary Assessment Study–IV, Menu Survey, school year 2009–2010 and School Nutrition Dietary Assessment Study–III, Menu Survey, school year 2004–2005 (Gordon et al. 2007, Table VII.3). Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Standard errors for SY 2004–2005 are estimated assuming a design effect of 1.5.

[a]In retinol equivalents (RE).

[b]Benchmarks are one-quarter of suggested maximum daily intake.

SY = school year; SE = standard error; SMI = School Meals Initiative for Healthy Children; REA= Recommended Energy Allowance; RDA = Recommended Dietary Allowance.

*Difference between SY 2009–2010 and SY 2004–2005 is significantly different from zero at the .05 level.

APPENDIX L

CRITERIA FOR HEALTHIERUS SCHOOL CHALLENGE (HUSSC) AWARDS IN EFFECT DURING SY 2009–2010

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Criteria for the HealthierUS School Challenge

HealthierUS School Challenge Criteria	Award Level General Requirements			
	Bronze	**Silver**	**Gold**	**Gold Award of Distinction**
1. School enrolled as a Team Nutrition (TN) school.	√	√	√	√
2. Reimbursable lunches meet the USDA nutrition standards *School district had an SMI review within 5 years and all corrective actions have been completed.*	√	√	√	√
3. Average Daily Participation for lunch meets or exceeds a minimum.	62%	70%	70%	70%
4. **School lunch menu is planned to allow students the opportunity to select each of the food items listed below.**	√	√	√	√
• Offering a **different vegetable** every day of the week. All servings must be at least ¼ cup. Of these five:	√	√	√	√
a. **Dark green or orange** vegetables offered 3 or more days per week (of the 3, at least 2 must be different)	√	√	√	√
b. **Cooked dry beans or peas** (legumes) must be offered each week (includes canned dry beans and peas).	√	√	√	√
• Offering a **different fruit** every day of the week (fresh, frozen, canned, dried or 100% juice). All servings must be at least ¼ cup. *Dried fruit must have no added sweetener (nutritive or non-nutritive); canned fruit must be packed in juice or light syrup.*	1 day/week fruit must be served fresh	1 day/week fruit must be served fresh	2 days/week fruit must be served fresh	2 days/week fruit must be served fresh
• 100% juice can only be counted as a fruit once per week.	√	√	√	√
• Offering of **whole-grain foods** serving. *A serving size of*	At least 1 serving of whole-grain food	At least 1 serving of whole-grain food	At least 1 serving of whole-grain food	At least 1 serving of whole-grain food

HealthierUS School Challenge Criteria	Award Level General Requirements			
	Bronze	**Silver**	**Gold**	**Gold Award of Distinction**
whole-grain food is equal to a serving of Grains/Bread as defined in the Food Buying Guide, pages 3.15-3.16. The majority of whole grain food products served must have the whole grain(s) listed first in the ingredient statement. Other whole grain servings must have whole grain as the primary grain ingredient.	offered 3 or more days per week (not the same one each day)	offered 3 or more days per week (not the same one each day)	offered each day (not the same one each day)	offered each day (not the same one each day)
• Only **low-fat (1% or less)** and **fat-free (skim) fluid milk**, flavored or unflavored, offered each day.	√	√	√	√
5. **If the school sells any other food & beverages on campus (competitive foods), sales must meet the criteria below, as well as the restricted times and locations stated at the right.** *Competitive foods are defined as any foods or beverages sold in competition with reimbursable meals. This includes a la carte, vending, snack bar, school store, and/or any other food & beverage sales on campus.* **Seconds or extra sales of entrees offered with the day's reimbursable lunches are exempt.**	The criteria apply during meal periods within the foodservice area(s)* **Foodservice area(s) refers to any area on school premises where program meals are served and/or eaten.*	The criteria apply during meal periods within the foodservice area(s)* **Foodservice area(s) refers to any area on school premises where program meals are served and/or eaten.*	The criteria apply throughout the school day (including meal periods), throughout the school campus	The criteria apply throughout the school day (including meal periods), throughout the school campus
6. **Competitive food & beverages** must meet the following criteria: **Competitive Foods:**				
a. **Total fat**: Calories from total fat must be at or below 35% per serving. *Excludes nuts, seeds, nut butters, and reduced fat cheese.*	√	√	√	√
b. **Trans fat**: Less than 0.5 grams (*trans* fat-free) per serving	√	√	√	√
c. **Saturated fat:** Calories from saturated fat must be below 10%. *Excludes reduced-fat cheese.*	√	√	√	√
d. **Sugar**: Total sugar must be at or below 35% by weight (includes naturally occurring and added sugars). *Excludes fruits, vegetables, and milk.*	√	√	√	√

HealthierUS School Challenge Criteria	Award Level General Requirements			
	Bronze	**Silver**	**Gold**	**Gold Award of Distinction**
e. **Sodium**: *Bronze/Silver/Gold:* Must be at or below 480 mg per side dish/non-entree serving Must be at or below 600 mg per main dish/entree serving *Gold Award of Distinction*:* Must be at or below 200 mg per side dish/non-entrée serving Must be at or below 480 mg per main dish/entrée serving	≤ 480 mg sodium per non-entrée; ≤ 600 mg per entrée	≤ 480 mg sodium per non-entrée; ≤ 600 mg per entrée	≤ 480 mg sodium per non-entrée; ≤ 600 mg per entrée	≤ 200 mg sodium per non-entrée; ≤ 480 mg per entrée OR PE is 150 minutes/week
f. **Portion size/Calories:** Not to exceed the serving size of the food served in the NSLP; for other items, the package or container is not to exceed 200 calories.	√	√	√	√
Competitive Beverages: **Only the following beverages are allowed.**	√	√	√	√
• **Milk**: Only low-fat (1% or less) and fat-free (skim), flavored or unflavored fluid milk, and/or USDA approved alternative dairy beverages; *limit serving size to maximum of 8 fluid ounces*.	√	√	√	√
• 100% full strength **fruit & vegetable juices** with no sweeteners (nutritive or non-nutritive); *limit serving size to maximum of 6 fluid ounces.*	√	√	√	√
• **Water**; non-flavored, no sweeteners (nutritive or non-nutritive), non-carbonated, non-caffeinated.				
7. Nutrition education: a) Is provided for at least half, but no fewer than two, of the grade levels in the school. If the school consists of a single grade, nutrition education is provided to all students in the school.	√	√	√	√
b) Is part of a structured and systematic unit of instruction, such as My Pyramid lessons from Team Nutrition.	√	√	√	√
c) Involves multiple channels of communication, including the classroom, cafeteria, and home/parents.	√	√	√	√
d) Messages are reinforced by prohibiting the use of food as a reward (school holiday parties are not included).	√	√	√	√

HealthierUS School Challenge Criteria	Award Level General Requirements			
	Bronze	**Silver**	**Gold**	**Gold Award of Distinction**
8. Physical education/activity is promoted by:				
a) Providing structured physical education classes for all full-day students throughout the school year.	A minimum average of 45 minutes per week throughout the school year	A minimum average of 45 minutes per week throughout the school year	A minimum average of 90 minutes per week throughout the school year	A minimum average of 150 minutes per week throughout the school year OR meet stricter sodium requirements
b) Providing unstructured daily opportunities for physical activity for all full-day students, such as recess.	√	√	√	√
c) Reinforcing physical activity education messages by neither denying nor requiring physical activity as a means of punishment.	√	√	√	√
9. School policies support a wellness environment by permitting primarily non-food items being sold through school **fundraising activities**. However, if food items are sold during the school day, they must meet the guidelines for competitive foods, as outlined on pages 2 and 3 of this document.	√	√	√	√
10. The school district has developed a **Wellness Policy**. A copy of the Wellness Policy is submitted with the application.	√	√	√	√

Source: Provided by U.S. Department of Agriculture's Food and Nutrition Service, January 24, 2012.

APPENDIX M

SUPPLEMENTAL TABLES FOR CHAPTER 12

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TABLES

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Table M.1. Average Calorie and Nutrient Content of National School Lunch Program Lunches *Offered* to Students at Schools Participating in the HealthierUS School Challenge (HUSSC) and All Elementary Schools Nationwide

	HUSSC Schools	All Elementary Schools
Average Amount		
Calories	752	726
Macronutrients		
Total fat (g)	26	26
Saturated fat (g)	8	8
Monounsaturated fat (g)	9	9
Polyunsaturated fat (g)	7	7
Linoleic acid (g)	6	6
Alpha–linolenic acid (g)	0.7	0.6
Carbohydrate (g)	102	97
Protein (g)	32	30
Vitamins		
Vitamin A (mcg RE)	485	453
Vitamin A (mcg RAE)	348	333
Vitamin C (mg)	37	32
Vitamin E (mg AT)	2.9	2.8
Vitamin B_6 (mg)	0.6	0.6
Vitamin B_{12} (mcg)	1.7	1.7
Folate (mcg)	127	122
Folate (mcg DFE)	154	151
Niacin (mg)	7	6
Riboflavin (mg)	0.9	0.9
Thiamin (mg)	0.6	0.5
Minerals		
Calcium (mg)	541	529
Iron (mg)	4.6	4.4
Magnesium (mg)	114	107
Phosphorus (mg)	598	575
Potassium (mg)	1,188	1,145
Sodium (mg)	1,444	1,395
Zinc (mg)	4.0	3.9
Other Dietary Components		
Cholesterol (mg)	60	56
Dietary fiber (g)	8	7
Dietary fiber (g/1,000 kcal)	11	10
Average Percentage of Calories from:		
Total fat	31.0	31.9
Saturated fat	9.5	10.0
Monounsaturated fat	11.0	11.3
Polyunsaturated fat	8.0	8.1
Linoleic acid	7.1	7.2
Alpha–linolenic acid	0.8	0.8
Carbohydrate	54.4	53.6
Protein	16.9	16.7
Number of Schools	**35**	**318**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research Estimates for "All Elementary Schools" are weighted to be representative of all public elementary schools offering the National School Lunch Program.

AT = Alpha–tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents.

Table M.2. Average Calorie and Nutrient Content of National School Lunch Program Lunches *Served* to Students at Schools Participating in the HealthierUS School Challenge (HUSSC) and All Elementary Schools Nationwide

	HUSSC Schools	All Elementary Schools
Average Amount		
Calories	662	661
Macronutrients		
Total fat (g)	22	23
Saturated fat (g)	7	7
Monounsaturated fat (g)	8	8
Polyunsaturated fat (g)	5	6
Linoleic acid (g)	5	5
Alpha–linolenic acid (g)	0.5	0.6
Carbohydrate (g)	90	88
Protein (g)	29	28
Vitamins		
Vitamin A (mcg RE)	347	351
Vitamin A (mcg RAE)	274	279
Vitamin C (mg)	25	23
Vitamin E (mg AT)	2.2	2.3
Vitamin B_6 (mg)	0.5	0.5
Vitamin B_{12} (mcg)	1.6	1.6
Folate (mcg)	103	104
Folate (mcg DFE)	127	130
Niacin (mg)	6	6
Riboflavin (mg)	0.8	0.8
Thiamin (mg)	0.5	0.5
Minerals		
Calcium (mg)	482	481
Iron (mg)	4.2	4.2
Magnesium (mg)	101	96
Phosphorus (mg)	543	534
Potassium (mg)	1,034	1,018
Sodium (mg)	1,303	1,324
Zinc (mg)	3.7	3.6
Other Dietary Components		
Cholesterol (mg)	53	54
Dietary fiber (g)	7	6
Dietary fiber (g/1,000 kcal)	10	9
Average Percentage of Calories from:		
Total fat	30.3	31.5
Saturated fat	9.6	10.1
Monounsaturated fat	10.9	11.2
Polyunsaturated fat	7.3	7.7
Linoleic acid	6.5	6.8
Alpha–linolenic acid	0.7	0.8
Carbohydrate	54.2	53.3
Protein	17.5	17.1
Number of Schools	**35**	**317**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research Estimates for "All Elementary Schools" are weighted to be representative of all public elementary schools offering the National School Lunch Program.

Note: Estimates are based on a weighted nutrient analysis of menu data for one week. A weighted nutrient analysis takes into account the frequency with which each menu item is selected by students. One school did not provide adequate data on the number of servings selected for each menu item and was excluded from the weighted analysis. The methodology is fully described in Appendix D of this report.

AT = Alpha–tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents.

Table M.3. Proportion of Schools Participating in the HealthierUS School Challenge (HUSSC) and All Elementary Schools Nationwide *Offering* National School Lunch Program Lunches that Satisfied Each of the SMI Nutrition Standards and Related Benchmarks and Different Combinations of the Standards and Benchmarks

	Standard/ Recommendation	HUSSC Schools	All Elementary Schools
SMI Nutrition Standards			
Calories	33% of 1989 REA	88.6	75.5
Protein	33% of 1989 RDA	100.0	100.0
Vitamin A[a]	33% of 1989 RDA	100.0	97.4
Vitamin C	33% of 1989 RDA	100.0	82.7
Calcium	33% of 1989 RDA	100.0	100.0
Iron	33% of 1989 RDA	100.0	92.7
Percentage of Calories from Total Fat	≤ 30%	42.9	35.1
Percentage of Calories from Saturated Fat	< 10%	74.3	49.6
Other Nutrition Benchmarks			
Percentage of Calories from Total Fat	25% – 35%[b]	85.7	70.2
Cholesterol	< 100 mg[b,c]	94	99
Sodium	< 767 mg[b,c]	0	0
Dietary Fiber (g/1,000 kcal)	14[b]	3	3
Combinations of Standards			
All SMI Standards		40.0	16.5
SMI Standards for all RDA Nutrients[c]		100.0	76.1
SMI Standards for All RDA Nutrients[d] and SMI Standard for Saturated Fat		74.3	38.8
SMI Standards for All RDA Nutrients[d] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		65.7	31.4
Updated Standards for All RDA Nutrients[e] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		62.9	32.9
Number of Schools		**35**	**318**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research Estimates for "All Elementary Schools" are weighted to be representative of all public elementary schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).

[b]Based on the 2010 *Dietary Guidelines for Americans*.

[c]Benchmarks are one-third of suggested maximum daily intake.

[d]Includes protein, vitamin A, vitamin C, calcium and iron.

[e]Updated to reflect RDA values included in the Dietary Reference Intakes.

RDA = Recommended Dietary Allowance; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

Table M.4. Proportion of Schools Participating in the HealthierUS School Challenge (HUSSC) and All Elementary Schools Nationwide *Serving* National School Lunch Program Lunches that Satisfied Each of the SMI Nutrition Standards and Related Benchmarks and Different Combinations of the Standards and Benchmarks

	Standard/ Recommendation	HUSSC Schools	All Elementary Schools
SMI Nutrition Standards			
Calories	33% of 1989 REA	54.3	49.2
Protein	33% of 1989 RDA	100.0	100.0
Vitamin A[a]	33% of 1989 RDA	97.1	89.5
Vitamin C	33% of 1989 RDA	94.3	70.7
Calcium	33% of 1989 RDA	100.0	99.6
Iron	33% of 1989 RDA	94.3	87.8
Percentage of Calories from Total Fat	≤ 30%	45.7	38.8
Percentage of Calories from Saturated Fat	< 10%	77.1	53.0
Other Nutrition Benchmarks			
Percentage of Calories from Total Fat	25% – 35%[b]	85.7	76.6
Cholesterol	< 100 mg[b,c]	100	99
Sodium	< 767 mg[b,c]	0	1
Dietary fiber (g/1,000 kcal)	14[b]	0	1
Combinations of Standards			
All SMI Standards		14.3	8.7
SMI Standards for all RDA Nutrients[c]		88.6	58.5
SMI Standards for All RDA Nutrients[d] and SMI Standard for Saturated Fat		68.6	29.9
SMI Standards for All RDA Nutrients[d] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		57.1	24.3
Updated Standards for All RDA Nutrients[e] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		40.0	23.2
Number of Schools		**35**	**317**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research Estimates for "All Elementary Schools" are weighted to be representative of all public elementary schools offering the National School Lunch Program.

Note: Estimates are based on a weighted nutrient analysis of menu data for one week. A weighted nutrient analysis takes into account the frequency with which each menu item is selected by students. One school did not provide adequate data on the number of servings selected for each menu item and was excluded from the weighted analysis. The methodology is fully described in Appendix D of this report.

[a]In retinol equivalents (RE).

[b]Based on the 2010 *Dietary Guidelines for Americans*.

[c]Benchmarks are one-third of suggested maximum daily intake.

[d]Includes protein, vitamin A, vitamin C, calcium and iron.

[e]Updated to reflect RDA values included in the Dietary Reference Intakes.

RDA = Recommended Dietary Allowance; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

Table M.5. Average Calorie and Nutrient Content of National School Lunch Program Lunches *Offered* to Students at Schools Participating in the HealthierUS School Challenge (HUSSC) and All Elementary Schools Nationwide, Relative to SMI Nutrition Standards and Related Benchmarks

	Standard/ Recommendation	HUSSC Schools	All Elementary Schools
Average Percentage of 1989 REA/RDA			
Calories	33%	38.6	36.9
Protein	33%	115.6	106.8
Vitamin A[a]	33%	76.1	70.0
Vitamin C	33%	82.1	69.7
Calcium	33%	66.3	63.5
Iron	33%	45.5	42.6
Average Percentage of Calories from:			
Total Fat	≤ 30%[b]	31.0	31.9
Saturated Fat	< 10%	9.5	10.0
Average Amount			
Cholesterol	< 100 mg[c,d]	60	56
Sodium	< 767 mg[c,d]	1,444	1,395
Dietary Fiber (g/1,000 kcal)	14[c]	11	10
Number of Schools		**35**	**318**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research Estimates for "All Elementary Schools" are weighted to be representative of all public elementary schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).

[b]The 2010 *Dietary Guidelines for Americans* recommendation for the percentage of calories from total fat is 25–35%.

[c]Based on the 2010 *Dietary Guidelines for Americans.*

[d]Benchmarks are one-third of suggested maximum daily intake.

SMI = School Meals Initiative for Healthy Children; REA = Recommended Energy Allowance; RDA = Recommended Dietary Allowance.

Table M.6. Average Calories and Nutrient Content of National School Lunch Program Lunches *Served* to Students at Schools Participating in the HealthierUS School Challenge (HUSSC) and All Elementary Schools Nationwide, Relative to SMI Nutrition Standards and Related Benchmarks

	Standard/ Recommendation	HUSSC Schools	All Elementary Schools
Average Percentage of 1989 REA/RDA			
Calories	33%	34.0	33.6
Protein	33%	105.3	100.0
Vitamin A[a]	33%	54.4	54.1
Vitamin C	33%	56.3	49.5
Calcium	33%	59.0	57.7
Iron	33%	41.7	40.3
Average Percentage of Calories from:			
Total Fat	≤ 30%[b]	30.3	31.5
Saturated Fat	< 10%	9.6	10.1
Average Amount			
Cholesterol	< 100 mg[c,d]	53	54
Sodium	< 767 mg[c,d]	1,303	1,324
Dietary Fiber (g/ 1,000 kcal)	14[c]	10	9
Number of Schools		**35**	**317**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research Estimates for "All Elementary Schools" are weighted to be representative of all public elementary schools offering the National School Lunch Program.

Note: Estimates are based on a weighted nutrient analysis of menu data for one week. A weighted nutrient analysis takes into account the frequency with which each menu item is selected by students. One school did not provide adequate data on the number of servings selected for each menu item and was excluded from the weighted analysis. The methodology is fully described in Appendix D of this report.

[a]In retinol equivalents (RE).

[b]The 2010 *Dietary Guidelines for Americans* recommendation for the percentage of calories from total fat is 25–35%.

[c]Based on the 2010 *Dietary Guidelines for Americans.*

[d]Benchmarks are one-third of suggested maximum daily intake.

SMI = School Meals Initiative for Healthy Children; REA = Recommended Energy Allowance; RDA = Recommended Dietary Allowance.

Table M.7. Average Amount of Food Groups in National School Lunch Program Lunches *Offered* to Students at Schools Participating in the HealthierUS School Challenge (HUSSC), Relative to USDA Food Pattern Recommendations[a]

		Calorie Levels[b]							
		1,200		1,400		1,600		1,800	
	Average Amount	Recommended Amount[c]	Percent of Recommendation[d]	Recommended Amount	Percent of Recommendation	Recommended Amount	Percent of Recommendation	Recommended Amount	Percent of Recommendation
Fruits (cup equiv)	0.82	1	82	1.5	55	1.5	55	1.5	55
Vegetables (cup equiv)	0.77	1.5	51	1.5	51	2	38	2.5	31
Dark green (cup/wk)[e]	0.23	1	23	1	23	1.5	15	1.5	15
Red and orange (cup/wk)[e]	1.18	3	39	3	39	4	30	5.5	21
Legumes (cup/wk)[e,f]	0.17	0.5	34	0.5	34	1	17	1.5	11
Starchy (cup/wk)[e]	0.71	3.5	20	3.5	20	4	18	5	14
Other (cup/wk)[e]	1.54	2.5	62	2.5	62	3.5	44	4	39
Grains (oz equiv)	2.55	4	64	5	51	5	51	6	43
Whole grains (oz equiv)	0.50	2	25	2.5	20	3	17	3	17
Protein foods (oz equiv)[g]	1.59	3	53	4	40	5	32	5	32
Dairy (cup equiv)	1.36	2.5	54	2.5	54	3	45	3	45
Oils (tsp)	2.07	4	52	4	52	5	41	5	41
Calories from solid fats and added sugars	188	120	156	120	156	120	156	160	117
Calories from solid fats	109	n.a		n.a		n.a		n.a	
Calories from added sugars	79	n.a		n.a		n.a		n.a	
Number of Schools	**35**								

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research.

[a]Only includes schools participating in the Healthier US School Challenge. See Appendix H, Table H.1 for data from all public elementary schools.

[b]USDA Food Pattern Recommendations assign individuals to a calorie level based on their sex, age, and activity level. Most of the children that typically attend elementary schools would require between 1,200 and 1,800 calories.

[c]Recommended daily amount of food from each group within a calorie level with the exception of the vegetable subgroups. Vegetable subgroups are recommended amounts per week.

[d]Percent of recommended daily amount from each group within calorie level.

[e]Includes only schools that provided menu information for 5 days.

[f]Includes legumes offered as a vegetable or included in combination entrees.

[g]Includes legumes offered as a meat alternate.

n.a. = Not applicable.

Table M.8. Average Amount of Food Groups in National School Lunch Program Lunches *Served* to Students at Schools Participating in the HealthierUS School Challenge (HUSSC), Relative to USDA Food Pattern Recommendations[a]

		Calorie Levels[b]							
		1,200		1,400		1,600		1,800	
	Average Amount	Recommended Amount[c]	Percent of Recommendation[d]	Recommended Amount	Percent of Recommendation	Recommended Amount	Percent of Recommendation	Recommended Amount	Percent of Recommendation
Fruits (cup equiv)	0.52	1	52	1.5	35	1.5	35	1.5	35
Vegetables (cup equiv)	0.54	1.5	36	1.5	36	2	27	2.5	22
Dark green (cup/wk)[e]	0.16	1	16	1	16	1.5	11	1.5	11
Red and orange (cup/wk)[e]	0.80	3	27	3	27	4	20	5.5	15
Legumes (cup/wk)[e,f]	0.10	0.5	20	0.5	20	1	10	1.5	7
Starchy (cup/wk)[e]	0.84	3.5	24	3.5	24	4	21	5	17
Other (cup/wk)[e]	0.71	2.5	28	2.5	28	3.5	20	4	18
Grains (oz equiv)	2.33	4	58	5	47	5	47	6	39
Whole grains (oz equiv)	0.38	2	19	2.5	15	3	13	3	13
Protein foods (oz equiv)[g]	1.47	3	49	4	37	5	29	5	29
Dairy (cup equiv)	1.26	2.5	50	2.5	50	3	42	3	42
Oils (tsp)	1.53	4	38	4	38	5	31	5	31
Calories from solid fats and added sugars	181	120	151	120	151	120	151	160	113
Calories from solid fats	104	n.a		n.a		n.a		n.a	
Calories from added sugars	77	n.a		n.a		n.a		n.a	
Number of Schools	**35**								

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research.

Note: Estimates are based on a weighted nutrient analysis of menu data for one week. A weighted nutrient analysis takes into account the frequency with which each menu item is selected by students. One school did not provide adequate data on the number of servings selected for each menu item and was excluded from the weighted analysis. The methodology is fully described in Appendix D of this report.

[a]Only includes schools participating in the HealthierUS School Challenge. See Appendix H, Table H.4 for data from all public elementary schools.

[b] USDA Food Pattern Recommendations assign individuals to a calorie level based on their sex, age, and activity level. Most of the children that typically attend elementary schools would require between 1,200 and 1,800 calories.

[c]Recommended daily amount of food from each group within a calorie level with the exception of the vegetable subgroups. Vegetable subgroups are recommended amounts per week.

[d]Percent of recommended daily amount from each group within calorie level.

[e]Includes only schools that provided menu information for 5 days.

[f]Includes legumes offered as a vegetable or included in combination entrees.

[g]Includes legumes offered as a meat alternate.

n.a. = Not applicable.

Table M.9. Food Sources of Calories and Nutrients in National School Lunch Program Lunches *Offered* to Students at Schools Participating in the HealthierUS School Challenge (HUSSC) and All Elementary Schools Nationwide

Major Food Group	Percentage Contribution to Average Amount Offered: HUSSC Schools	Percentage Contribution to Average Amount Offered: All Elementary Schools	Top 10 Food Sources	Percentage Contribution to Average Amount Offered: HUSSC Schools	Percentage Contribution to Average Amount Offered: All Elementary Schools
Calories					
Combination Entrees	35.4	37.7	1% milk, flavored	6.7	6.4
Milk	16.9	17.3	Sandwiches with plain meat or poultry[b]	5.6	4.4
Breads/Grains	11.2	8.6	Bread, rolls, bagels	4.9	3.4
Vegetables	10.3	9.3	Peanut butter sandwiches	4.8	5.7
Fruit	10.2	9.5	Entrée salads, entrée salad bars[c]	4.5	2.9
Accompaniments[a]	6.8	7.1	1% milk, unflavored	4.2	3.8
Meat/Meat Alternate	4.5	5.0	Skim or nonfat milk, flavored	3.7	3.3
Desserts	4.3	4.6	Salad dressings	3.5	3.4
Other	0.4	0.8	Other food bars, bag/pre–plated lunches	3.5	3.3
			Lettuce salads[d]	3.4	2.6
Protein					
Combination Entrees	46.6	47.0	Sandwiches with plain meat or poultry[b]	9.6	7.2
Milk	25.8	26.8	1% milk, unflavored	8.0	7.3
Meat/Meat Alternate	7.5	8.7	Entrée salads, entrée salad bars[c]	8.0	5.2
Breads/Grains	7.4	5.7	1% milk, flavored	7.7	7.5
Vegetables	6.9	5.8	Skim or nonfat milk, flavored	5.1	4.8
Fruit	2.2	2.0	Hamburgers/cheeseburgers	4.6	5.1
Accompaniments[a]	1.4	1.9	Skim or nonfat milk, unflavored	4.1	3.9
Desserts	1.4	1.6	Bread, rolls, bagels	4.0	2.8
Other	0.8	0.5	Pizza and pizza products	3.9	6.2
			Mexican–style entrees	3.8	4.9
Vitamin A (mcg RE)					
Vegetables	42.2	41.1	Carrots	20.2	23.9
Milk	29.2	30.8	1% milk, unflavored	9.0	8.3
Combination Entrees	17.9	18.0	Entrée salads, entrée salad bars[c]	8.9	6.7
Fruit	4.6	3.9	1% milk, flavored	8.8	8.8
Accompaniments[a]	2.4	2.8	Lettuce salads[d]	5.9	5.3
Breads/Grains	1.3	1.1	Yams, sweet potatoes	5.8	2.8
Desserts	1.1	1.2	Skim or nonfat milk, flavored	5.6	5.3
Other	0.6	0.4	Skim or nonfat milk, unflavored	4.8	4.7
Meat/Meat Alternate	0.6	0.7	Mixed vegetables	4.2	5.2
			Leafy greens	3.3	0.9
Vitamin C					
Fruit	58.0	57.5	Citrus fruit	25.0	23.6
Vegetables	23.7	22.6	Fruit juice, 100%	11.1	19.4
Combination Entrees	9.9	10.0	Lettuce salads[d]	6.6	5.7
Desserts	3.4	2.9	Berries	4.7	2.1
Accompaniments[a]	2.4	3.1	Broccoli	4.7	5.2
Milk	1.2	1.4	Entrée salads, entrée salad bars[c]	4.4	3.5
Breads/Grains	1.0	0.6	Fruit–based desserts	3.0	2.0
Meat/Meat Alternate	0.3	0.5	Other fresh fruit	3.0	0.1
Other	0.2	1.4	Other food bars, bag/pre–plated lunches	3.0	2.5
			Apple	2.8	2.7

Table M.9 *(continued)*

Major Food Group	Percentage Contribution to Average Amount Offered: HUSSC Schools	Percentage Contribution to Average Amount Offered: All Elementary Schools	Top 10 Food Sources	Percentage Contribution to Average Amount Offered: HUSSC Schools	Percentage Contribution to Average Amount Offered: All Elementary Schools
Calcium					
Milk	53.4	54.1	1% milk, unflavored	16.4	14.6
Combination Entrees	27.2	29.0	1% milk, flavored	15.9	15.0
Breads/Grains	5.7	3.7	Skim or nonfat milk, flavored	10.4	9.4
Vegetables	5.3	4.1	Skim or nonfat milk, unflavored	8.9	8.3
Fruit	3.4	2.9	Sandwiches with plain meat or poultry[b]	5.4	4.1
Meat/Meat Alternate	1.8	2.6	Entrée salads, entrée salad bars[c]	5.4	3.7
Desserts	1.7	1.6	Pizza and pizza products	4.0	6.3
Accompaniments[a]	1.3	1.8	Bread, rolls, bagels	2.8	2.0
Other	0.2	0.3	Mexican–style entrees	2.4	3.0
			Cheese sandwiches	2.4	2.4
Iron					
Combination Entrees	44.2	48.0	Bread, rolls, bagels	9.9	6.8
Breads/Grains	19.2	14.4	Sandwiches with plain meat or poultry[b]	8.0	6.5
Vegetables	13.4	11.8	Hamburgers/cheeseburgers	5.5	5.8
Fruit	7.2	7.5	Entrée salads, entrée salad bars[c]	5.2	3.1
Milk	5.9	6.3	Pizza and pizza products	4.9	7.8
Meat/Meat Alternate	4.4	5.1	Peanut butter sandwiches	3.8	5.1
Desserts	2.9	3.7	Other food bars, bag/pre–plated lunches	3.8	3.4
Accompaniments[a]	2.2	2.5	Mexican–style entrees	3.6	4.8
Other	0.6	0.7	Crackers and pretzels	3.4	2.8
			Legumes	3.3	2.4
Total Fat					
Combination Entrees	45.1	47.7	Salad dressings	9.1	8.9
Accompaniments[a]	15.6	15.6	Peanut butter sandwiches	7.9	9.1
Vegetables	12.1	9.9	Entrée salads, entrée salad bars[c]	6.7	4.4
Breads/Grains	8.8	6.2	Condiments and spreads	6.5	6.7
Milk	6.8	8.1	Sandwiches with plain meat or poultry[b]	6.4	4.8
Meat/Meat Alternate	6.6	7.1	Lettuce salads[d]	6.3	4.5
Desserts	3.7	4.0	Hamburgers/cheeseburgers	4.2	4.4
Fruit	0.8	0.7	Mexican–style entrees	4.1	5.1
Other	0.4	0.9	Pizza and pizza products	3.8	5.7
			Other food bars, bag/pre–plated lunches	3.3	3.6
Saturated Fat					
Combination Entrees	50.8	52.6	Sandwiches with plain meat or poultry[b]	9.0	6.6
Milk	14.1	16.3	Entrée salads, entrée salad bars[c]	9.0	6.3
Accompaniments[a]	10.4	9.6	1% milk, unflavored	6.0	5.1
Vegetables	7.9	5.9	Condiments and spreads	5.8	5.3
Breads/Grains	6.2	4.4	1% milk, flavored	5.8	5.2
Meat/Meat Alternate	5.7	6.5	Hamburgers/cheeseburgers	5.1	5.3
Desserts	4.1	3.6	Peanut butter sandwiches	5.1	5.9
Fruit	0.5	0.4	Pizza and pizza products	5.0	7.4
Other	0.3	0.6	Mexican–style entrees	4.7	6.0
			Salad dressings	4.6	4.4

Table M.9 *(continued)*

Major Food Group	Percentage Contribution to Average Amount Offered: HUSSC Schools	Percentage Contribution to Average Amount Offered: All Elementary Schools	Top 10 Food Sources	Percentage Contribution to Average Amount Offered: HUSSC Schools	Percentage Contribution to Average Amount Offered: All Elementary Schools
Cholesterol					
Combination Entrees	60.0	57.6	Entrée salads, entrée salad bars[c]	15.2	11.5
Milk	14.6	17.4	Sandwiches with plain meat or poultry[b]	12.5	10.1
Meat/Meat Alternate	11.9	14.4	1% milk, unflavored	6.2	5.8
Breads/Grains	3.8	2.8	Breaded/fried chicken products	5.3	5.5
Accompaniments[a]	3.3	2.9	Hamburgers/cheeseburgers	5.2	6.5
Vegetables	3.2	1.6	Other food bars, bag/pre–plated lunches	5.1	3.2
Desserts	2.0	2.8	Mexican–style entrees	4.7	6.4
Other	1.1	0.4	1% milk, flavored	4.6	4.5
Fruit	0.0	0.0	Unbreaded poultry/meat/fish	3.4	4.4
			Mixtures with pasta or noodle base	3.2	3.5
Sodium					
Combination Entrees	41.8	43.6	Salad dressings	8.2	7.3
Accompaniments[a]	15.9	16.6	Sandwiches with plain meat or poultry[b]	8.2	6.8
Vegetables	14.7	14.0	Condiments and spreads	7.7	9.3
Breads/Grains	11.2	8.7	Entrée salads, entrée salad bars[c]	6.8	3.5
Milk	7.8	8.0	Lettuce salads[d]	4.6	3.8
Meat/Meat Alternate	5.7	6.2	Bread, rolls, bagels	4.5	3.2
Desserts	1.5	1.9	Pizza and pizza products	4.0	6.2
Other	1.0	0.8	Hamburgers/cheeseburgers	3.9	4.6
Fruit	0.3	0.2	Mixtures with pasta or noodle base	3.2	3.4
			Other food bars, bag/pre–plated lunches	3.1	3.2
Dietary Fiber					
Combination Entrees	30.0	31.0	Apple	6.7	6.1
Fruit	26.5	24.8	Legumes	5.3	3.8
Vegetables	23.7	23.6	Bread, rolls, bagels	5.3	3.6
Breads/Grains	9.3	8.1	Citrus fruit	5.0	4.6
Milk	4.8	5.6	Peanut butter sandwiches	4.7	5.9
Desserts	1.9	2.2	Lettuce salads[d]	4.3	3.9
Accompaniments[a]	1.8	2.3	Entrée salads, entrée salad bars[c]	4.3	3.1
Meat/Meat Alternate	1.4	1.5	Sandwiches with plain meat or poultry[b]	4.2	2.7
Other	0.6	0.8	Other food bars, bag/pre–plated lunches	4.0	3.2
			Pears	3.3	3.5
Calories from Solid Fats and Added Sugars					
Combination Entrees	36.0	37.9	1% milk, flavored	10.8	10.1
Milk	20.2	21.2	Entree salads, entrée salad bars[c]	5.7	3.9
Desserts	11.0	11.1	Cookies, cakes, brownies	5.6	8.0
Breads/Grains	8.1	6.4	Skim or nonfat milk, flavored	5.5	5.0
Accompaniments	6.9	7.2	Sandwiches with plain meat or poultry[b]	5.4	4.0
Fruit	6.4	4.5	Condiments and spreads	4.6	5.6
Vegetables	6.3	4.6	Pizza and pizza products	3.7	5.7
Meat/Meat Alternate	5.2	6.4	Hamburgers/cheeseburgers	3.5	3.7
Other	0.0	0.7	Entree food bars, bag/pre–plated lunches	3.5	3.5
			Peanut butter sandwiches	3.4	3.2

Table M.9 *(continued)*

Major Food Group	Percentage Contribution to Average Amount Offered: HUSSC Schools	Percentage Contribution to Average Amount Offered: All Elementary Schools	Top 10 Food Sources	Percentage Contribution to Average Amount Offered: HUSSC Schools	Percentage Contribution to Average Amount Offered: All Elementary Schools
Solid Fats					
Combination Entrees	50.2	50.5	Entree salads, entrée salad bars[c]	9.0	5.8
Milk	13.1	15.2	Sandwiches with plain meat or poultry[b]	8.2	5.7
Breads/Grains	10.4	7.5	1% milk, flavored	5.7	5.1
Meat/Meat Alternate	7.4	8.2	Pizza and pizza products	5.6	8.1
Desserts	6.7	7.2	1% milk, unflavored	5.5	4.6
Vegetables	6.6	5.1	Hamburgers/cheeseburgers	5.2	5.1
Accompaniments	5.4	5.7	Cookies, cakes, brownies	4.9	6.5
Fruit	0.1	0.0	Mexican–style entrees	4.9	6.3
Other	0.1	0.6	Condiments and spreads	4.4	4.8
			Breaded/fried chicken products	3.9	3.6
Added Sugars					
Milk	30.1	30.8	1% milk, flavored	17.9	18.1
Desserts	16.9	17.4	Skim or nonfat milk, flavored	12.2	12.1
Combination Entrees	16.2	17.8	Cookies, cakes, brownies	6.7	10.3
Fruit	15.0	11.6	Fruit–based desserts	5.8	3.3
Accompaniments	8.9	9.6	Peanut butter sandwiches	5.4	5.9
Vegetables	5.7	3.7	Condiments and spreads	4.9	6.9
Breads/Grains	5.0	4.6	Peaches	4.2	3.7
Meat/Meat Alternate	2.1	3.6	Salad dressings	4.0	2.7
Other	0.0	0.8	Dairy–based desserts	3.6	2.1
			Entree food bars, bag/pre–plated lunches	3.2	3.2

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research. Estimates for "All Elementary Schools" are weighted to be representative of all public elementary schools offering the National School Lunch Program.

[a] Includes condiments, toppings, spreads, and salad dressing.

[b] Includes sandwiches with or without cheese.

[c] Includes entree salads with hard-cooked eggs or egg salad. Entree salad bars included an average serving of salad dressing.

[d] Includes side salad bars that include an average serving of salad dressing.

RE=Retinol equivalent

Table M.10. Availability of Self-Serve Food Bars at Lunch in Schools Participating in the HealthierUS School Challenge (HUSSC) and All Elementary Schools Nationwide

	Percentage of Schools	
	HUSSC Schools	All Elementary Schools
Any Self-Serve Food Bar		
At least once per week	20	21
Every day	17	16
Any Salad Bar		
At least once per week	20	19
Every day	17	15
Side Salad Bar		
At least once per week	17	17
Every day	14	13
Salad Bar as Entrée		
At least once per week	9	3
Every day	6	2
Sandwich/Deli Bar		
At least once per week	0	2
Every day	0	1
Other Entree Food Bars[a]		
At least once per week	3	2
Every day	0	0
Number of Schools	**35**	**318**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research. Estimates for "All Elementary Schools" are weighted to be representative of all public elementary schools offering the National School Lunch Program.

[a]Includes baked potato bars, nacho and taco bars, and Italian/pasta bars.

Table M.11. Availability of Fresh Produce in Schools Participating in the HealthierUS School Challenge (HUSSC) and All Elementary Schools Nationwide

	Percentage of Schools	
	HUSSC Schools	All Elementary Schools
Number of Days Any Fresh Produce Was Offered		
None	0	1
1 to 2	0	10
3 to 4	18	28
5	82	62
Mean number of days offered	5	4
Median number of days offered	5	4
Number of Days Any Raw or Cooked Fresh Vegetables Were Offered[a]		
None	0	1
1 to 2	7	11
3 to 4	29	27
5	64	61
Mean number of days offered	4	4
Median number of days offered	5	5
Number of Days Any Raw Vegetables Were Offered[a]		
None	0	3
1 to 2	18	28
3 to 4	25	25
5	57	44
Mean number of days offered	4	4
Median number of days offered	5	4
Number of Days Any Cooked Fresh Vegetables Were Offered[a]		
None	4	4
1 to 2	25	38
3 to 4	61	43
5	11	16
Mean number of days offered	3	3
Median number of days offered	3	3
Number of Days Any Fresh Fruits Were Offered[b]		
None	4	14
1 to 2	7	33
3 to 4	32	21
5	57	32
Mean number of days offered	4	3
Median number of days offered	5	3
Number of Schools	**28**	**257**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research. Estimates for "All Elementary Schools" are weighted to be representative of all public elementary schools offering the National School Lunch Program.

Note: Includes only schools that provided menu information for five days.

[a]Excludes canned and frozen vegetables.

[b]Excludes canned, frozen, and dried fruits and fruit juices.

Table M.12. Average Calorie and Nutrient Content of School Breakfast Program Breakfasts *Offered* to Students at Schools Participating in the HealthierUS School Challenge (HUSSC) and All Elementary Schools Nationwide

	HUSSC Schools	All Elementary Schools
Average Amount		
Calories	431	458
Macronutrients		
Total fat (g)	10	11
Saturated fat (g)	4	4
Monounsaturated fat (g)	4	4
Polyunsaturated fat (g)	2	2
Linoleic acid (g)	2	2
Alpha–linolenic acid (g)	0.2	0.2
Carbohydrate (g)	71	75
Protein (g)	15	16
Vitamins		
Vitamin A (mcg RE)	264	278
Vitamin A (mcg RAE)	267	279
Vitamin C (mg)	29	32
Vitamin E (mg AT)	0.9	1.0
Vitamin B_6 (mg)	0.5	0.6
Vitamin B_{12} (mcg)	2.0	2.2
Folate (mcg)	108	127
Folate (mcg DFE)	157	188
Niacin (mg)	5	5
Riboflavin (mg)	0.9	0.9
Thiamin (mg)	0.5	0.5
Minerals		
Calcium (mg)	414	428
Iron (mg)	4.4	5.0
Magnesium (mg)	62	66
Phosphorus (mg)	389	403
Potassium (mg)	697	726
Sodium (mg)	524	549
Zinc (mg)	2.9	3.3
Other Dietary Components		
Cholesterol (mg)	33	40
Dietary fiber (g)	3	3
Dietary fiber (g/1,000 kcal)	6	7
Average Percentage of Calories from:		
Total fat	21.5	22.2
Saturated fat	7.7	8.2
Monounsaturated fat	7.8	7.9
Polyunsaturated fat	4.3	4.4
Linoleic acid	3.9	3.9
Alpha–linolenic acid	0.4	0.4
Carbohydrate	65.8	65.5
Protein	14.3	14.0
Number of Schools	**35**	**282**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research. Estimates for "All Elementary Schools" are weighted to be representative of all public elementary schools offering the National School Lunch Program.

AT = Alpha–tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents.

Table M.13. Average Calorie and Nutrient Content of School Breakfast Program Breakfasts *Served* to Students at Schools Participating in the HealthierUS School Challenge (HUSSC) and All Elementary Schools Nationwide

	HUSSC Schools	All Elementary Schools
Average Amount		
Calories	419	434
Macronutrients		
Total fat (g)	11	12
Saturated fat (g)	4	4
Monounsaturated fat (g)	4	4
Polyunsaturated fat (g)	2	2
Linoleic acid (g)	2	2
Alpha–linolenic acid (g)	0.2	0.2
Carbohydrate (g)	66	69
Protein (g)	15	15
Vitamins		
Vitamin A (mcg RE)	241	245
Vitamin A (mcg RAE)	236	248
Vitamin C (mg)	26	28
Vitamin E (mg AT)	0.8	0.9
Vitamin B_6 (mg)	0.5	0.5
Vitamin B_{12} (mcg)	1.7	1.9
Folate (mcg)	98	111
Folate (mcg DFE)	142	163
Niacin (mg)	5	5
Riboflavin (mg)	0.8	0.8
Thiamin (mg)	0.4	0.5
Minerals		
Calcium (mg)	373	382
Iron (mg)	4.0	4.5
Magnesium (mg)	57	59
Phosphorus (mg)	374	378
Potassium (mg)	636	660
Sodium (mg)	562	569
Zinc (mg)	2.6	3.0
Other Dietary Components		
Cholesterol (mg)	38	44
Dietary fiber (g)	3	3
Dietary fiber (g/1,000 kcal)	6	6
Average Percentage of Calories from:		
Total fat	24.1	23.8
Saturated fat	8.5	8.6
Monounsaturated fat	9.1	8.7
Polyunsaturated fat	4.6	4.6
Linoleic acid	4.1	4.1
Alpha–linolenic acid	0.4	0.4
Carbohydrate	63.2	63.8
Protein	14.2	13.9
Number of Schools	**35**	**282**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research are weighted to be representative of all public schools offering the National School Lunch Program.

Note: Estimates are based on a weighted nutrient analysis of menu data for one week. A weighted nutrient analysis takes into account the frequency with which each menu item is selected by students. One school did not provide adequate data on the number of servings selected for each menu item and was excluded from the weighted analysis. The methodology is fully described in Appendix D of this report.

AT = Alpha–tocopherol; DFE = Dietary folate equivalents; RE = Retinol equivalents; RAE = Retinol activity equivalents.

Table M.14. Proportion of Schools Participating in the HealthierUS School Challenge (HUSSC) and All Elementary Schools Nationwide *Offering* School Breakfast Program Breakfasts that Satisfied Each of the SMI Nutrition Standards and Related Benchmarks and Different Combinations of the Standards and Benchmarks

	Standard/ Recommendation	HUSSC Schools	All Elementary Schools
SMI Nutrition Standards			
Calories	25% of 1989 REA	8.6	24.3
Protein	25% of 1989 RDA	100.0	100.0
Vitamin A[a]	25% of 1989 RDA	100.0	99.1
Vitamin C	25% of 1989 RDA	94.3	96.9
Calcium	25% of 1989 RDA	100.0	100.0
Iron	25% of 1989 RDA	91.4	93.8
Percentage of Calories from Total Fat	≤ 30%	94.3	94.6
Percentage of Calories from Saturated Fat	< 10%	82.9	81.1
Other Nutrition Benchmarks			
Percentage of Calories from Total Fat	25% – 35%[b]	22.9	25.3
Cholesterol	< 75 mg[b,c]	97	93
Sodium	< 575 mg[b,c]	77	70
Dietary Fiber (g/1,000 kcal)	14[b]	0	0
Combinations of Standards			
All SMI Standards		5.7	19.0
SMI Standards for all RDA Nutrients[c]		85.7	90.6
SMI Standards for All RDA Nutrients[d] and SMI Standard for Saturated Fat		74.3	75.3
SMI Standards for All RDA Nutrients[d] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		11.4	12.7
Updated Standards for All RDA Nutrients[e] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		5.7	9.0
Number of Schools		**35**	**282**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research. Estimates for "All Elementary Schools" are weighted to be representative of all public elementary schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).

[b]Based on the 2010 *Dietary Guidelines for Americans*.

[c]Benchmarks are one-quarter of suggested maximum daily intake.

[d]Includes protein, vitamin A, vitamin C, calcium and iron.

[e]Updated to reflect RDA values included in the Dietary Reference Intakes.

RDA = Recommended Dietary Allowance; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

Table M.15. Proportion of Schools Participating in the HealthierUS School Challenge (HUSSC) and All Elementary Schools Nationwide *Serving* School Breakfast Program Breakfasts that Satisfied Each of the SMI Nutrition Standards and Related Benchmarks and Different Combinations of the Standards and Benchmarks

	Standard/ Recommendation	HUSSC Schools	All Elementary Schools
SMI Nutrition Standards			
Calories	25% of 1989 REA	17.1	23.1
Protein	25% of 1989 RDA	100.0	99.0
Vitamin A[a]	25% of 1989 RDA	94.3	89.7
Vitamin C	25% of 1989 RDA	94.3	94.9
Calcium	25% of 1989 RDA	100.0	98.6
Iron	25% of 1989 RDA	94.3	92.2
Percentage of Calories from Total Fat	≤ 30%	85.7	88.6
Percentage of Calories from Saturated Fat	< 10%	74.3	78.4
Other Nutrition Benchmarks			
Percentage of Calories from Total Fat	25% – 35%[b]	45.7	33.1
Cholesterol	< 75 mg[b,c]	91	91
Sodium	< 575 mg[b,c]	51	53
Dietary Fiber (g/1,000 kcal)	14[b]	0	0
Combinations of Standards			
All SMI Standards		14.3	14.6
SMI Standards for all RDA Nutrients[c]		88.6	81.6
SMI Standards for All RDA Nutrients[d] and SMI Standard for Saturated Fat		68.6	65.7
SMI Standards for All RDA Nutrients[d] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		20.0	11.9
Updated Standards for All RDA Nutrients[e] SMI Standard for Saturated Fat, and 2010 *Dietary Guidelines* Standard for Total Fat		8.6	6.5
Number of Schools		**35**	**282**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research. Estimates for "All Elementary Schools" are weighted to be representative of all public elementary schools offering the National School Lunch Program.

Note: Estimates are based on a weighted nutrient analysis of menu data for one week. A weighted nutrient analysis takes into account the frequency with which each menu item is selected by students. The methodology is fully described in Appendix D of this report.

[a]In retinol equivalents (RE).

[b]Based on the 2010 *Dietary Guidelines for Americans*.

[c]Benchmarks are one-quarter of suggested maximum daily intake.

[d]Includes protein, vitamin A, vitamin C, calcium and iron.

[e]Updated to reflect RDA values included in the Dietary Reference Intakes.

RDA = Recommended Dietary Allowance; REA = Recommended Energy Allowance; SMI = School Meals Initiative for Healthy Children.

Table M.16. Average Calories and Nutrient Content of School Breakfast Program Breakfasts *Offered* to Students at Schools Participating in the HealthierUS School Challenge (HUSSC) and All Elementary Schools Nationwide, Relative to SMI Nutrition Standards and Related Benchmarks

	Standard/ Recommendation	HUSSC Schools	All Elementary Schools
Average Percentage of 1989 REA/RDA			
Calories	25%	22.1	23.3
Protein	25%	56.0	56.6
Vitamin A[a]	25%	41.4	42.9
Vitamin C	25%	64.9	71.1
Calcium	25%	50.7	51.4
Iron	25%	43.1	48.5
Average Percentage of Calories from:			
Total Fat	≤ 30%[b]	21.5	22.2
Saturated Fat	< 10%	7.7	8.2
Average Amount			
Cholesterol	< 75 mg[c,d]	33	40
Sodium	< 575 mg[c,d]	524	549
Dietary fiber (g/1,000 kcal)	14[c]	6	7
Number of Schools		**35**	**282**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research. Estimates for "All Elementary Schools" are weighted to be representative of all public elementary schools offering the National School Lunch Program.

[a]In retinol equivalents (RE).

[b]The 2010 *Dietary Guidelines for Americans* recommendation for the percentage of calories from total fat is 25–35%.

[c]Based on the 2010 *Dietary Guidelines for Americans.*

[d]Benchmarks are one-quarter of suggested maximum daily intake.

SMI = School Meals Initiative for Healthy Children; REA = Recommended Energy Allowance; RDA = Recommended Dietary Allowance.

Table M.17. Average Calorie and Nutrient Content of School Breakfast Program Breakfasts *Served* to Students at Schools Participating in the HealthierUS School Challenge (HUSSC) and All Elementary Schools Nationwide, Relative to SMI Nutrition Standards and Related Benchmarks

	Standard/ Recommendation	HUSSC Schools	All Elementary Schools
Average Percentage of 1989 REA/RDA			
Calories	25%	21.5	22.1
Protein	25%	54.5	53.7
Vitamin A[a]	25%	36.1	37.9
Vitamin C	25%	58.0	62.5
Calcium	25%	45.7	46.0
Iron	25%	39.8	43.7
Average Percentage of Calories from:			
Total Fat	≤ 30%[b]	24.1	23.8
Saturated Fat	< 10%	8.5	8.6
Average Amount			
Cholesterol	< 75 mg[c,d]	38	44
Sodium	< 575 mg[c,d]	562	569
Dietary Fiber (g/ 1,000 kcal)	14[c]	6	6
Number of Schools		**35**	**282**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research. Estimates for "All Elementary Schools" are weighted to be representative of all public elementary schools offering the National School Lunch Program.

Note: Estimates are based on a weighted nutrient analysis of menu data for one week. A weighted nutrient analysis takes into account the frequency with which each menu item is selected by students. The methodology is fully described in Appendix D of this report.

[a]In retinol equivalents (RE).

[b]The 2010 *Dietary Guidelines for Americans* recommendation for the percentage of calories from total fat is 25–35%.

[c]Based on the 2010 *Dietary Guidelines for Americans.*

[d]Benchmarks are one-quarter of suggested maximum daily intake.

SMI = School Meals Initiative for Healthy Children; REA = Recommended Energy Allowance; RDA = Recommended Dietary Allowance; HUSSC = HealthierUS School Challenge.

Table M.18. Average Amount of Food Groups in School Breakfast Program Breakfasts *Offered* to Students at Schools Participating in the HealthierUS School Challenge (HUSSC), Relative to USDA Food Pattern Recommendations[a]

		Calorie Levels[b]							
		1,200		1,400		1,600		1,800	
	Average Amount	Recommended Amount[c]	Percent of Recommendation[d]	Recommended Amount	Percent of Recommendation	Recommended Amount	Percent of Recommendation	Recommended Amount	Percent of Recommendation
Fruits (cup equiv)	0.56	1	56	1.5	38	1.5	38	1.5	38
Vegetables (cup equiv)	0.01	1.5	0	1.5	0	2	0	2.5	0
Dark green (cup/wk)[e]	0.00	1	0	1	0	1.5	0	1.5	0
Red and orange (cup/wk)[e]	0.02	3	1	3	1	4	1	5.5	0
Legumes (cup/wk)[e,f]	0.00	0.5	0	0.5	0	1	0	1.5	0
Starchy (cup/wk)[e]	0.00	3.5	0	3.5	0	4	0	5	0
Other (cup/wk)[e]	0.00	2.5	0	2.5	0	3.5	0	4	0
Grains (oz equiv)	1.55	4	39	5	31	5	31	6	26
Whole grains (oz equiv)	0.34	2	17	2.5	14	3	11	3	11
Protein Foods (oz equiv)[g]	0.27	3	9	4	7	5	5	5	5
Dairy (cup equiv)	1.11	2.5	44	2.5	44	3	37	3	37
Oils (tsp)	0.22	4	6	4	6	5	4	5	4
Calories from Solid Fats and Added Sugars	132	120	110	120	110	120	110	160	83
Calories from solid fats	67	n.a		n.a		n.a		n.a	
Calories from added sugars	66	n.a		n.a		n.a		n.a	
Number of Schools	**35**								

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research. Estimates for "All Elementary Schools" are weighted to be representative of all public elementary schools offering the National School Lunch Program.

[a]Only includes schools participating in the HealthierUS School Challenge. See Appendix H, Table H.7 for data from all public elementary schools.

[b]USDA Food Pattern Recommendations assign individuals to a calorie level based on their sex, age, and activity level. Most of the children that typically attend elementary schools would require between 1,200 and 1,800 calories.

[c]Recommended daily amount of food from each group within a calorie level with the exception of the vegetable subgroups. Vegetable subgroups are recommended amounts per week.

[d]Percent of recommended daily amount from each group within calorie level.

[e]Includes only schools that provided menu information for 5 days.

[f]Includes legumes offered as a vegetable or included in combination entrees.

[g]Includes legumes offered as a meat alternate.

n.a. = Not applicable.

Table M.19. Average Amount of Food Groups in School Breakfast Program Breakfasts *Served* to Students at Schools Participating in the HealthierUS School Challenge (HUSSC), Relative to USDA Food Pattern Recommendations[a]

		Calorie Levels[b]							
		1,200		1,400		1,600		1,800	
	Average Amount	Recommended Amount[c]	Percent of Recommendation[d]	Recommended Amount	Percent of Recommendation	Recommended Amount	Percent of Recommendation	Recommended Amount	Percent of Recommendation
Fruits (cup equiv)	0.48	1	48	1.5	32	1.5	32	1.5	32
Vegetables (cup equiv)	0.00	1.5	0	1.5	0	2	0	2.5	0
Dark green (cup/wk)[e]	0.00	1	0	1	0	1.5	0	1.5	0
Red and orange (cup/wk)[e]	0.02	3	1	3	1	4	1	5.5	0
Legumes (cup/wk)[e,f]	0.00	0.5	0	0.5	0	1	0	1.5	0
Starchy (cup/wk)[e]	0.00	3.5	0	3.5	0	4	0	5	0
Other (cup/wk)[e]	0.00	2.5	0	2.5	0	3.5	0	4	0
Grains (oz equiv)	1.63	4	41	5	33	5	33	6	27
Whole grains (oz equiv)	0.27	2	14	2.5	11	3	9	3	9
Protein Foods (oz equiv)[g]	0.33	3	11	4	8	5	7	5	7
Dairy (cup equiv)	0.98	2.5	39	2.5	39	3	33	3	33
Oils (tsp)	0.21	4	5	4	5	5	4	5	4
Calories from Solid Fats and Added Sugars	136	120	113	120	113	120	113	160	85
Calories from solid fats	74	n.a		n.a		n.a		n.a	
Calories from added sugars	62	n.a		n.a		n.a		n.a	
Number of Schools	**35**								

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research. Estimates for "All Elementary Schools" are weighted to be representative of all public elementary schools offering the National School Lunch Program.

Note: Estimates are based on a weighted nutrient analysis of menu data for one week. A weighted nutrient analysis takes into account the frequency with which each menu item is selected by students. The methodology is fully described in Appendix D of this report.

[a]Only includes schools participating in the HealthierUS School Challenge. See Appendix H, Table H.10 for data from all public elementary schools.

[b]USDA Food Pattern Recommendations assign individuals to a calorie level based on their sex, age, and activity level. Most of the children that typically attend elementary schools would require between 1,200 and 1,800 calories.

[c]Recommended daily amount of food from each group within a calorie level with the exception of the vegetable subgroups. Vegetable subgroups are recommended amounts per week.

[d]Percent of recommended daily amount from each group within calorie level.

[e]Includes only schools that provided menu information for 5 days.

[f]Includes legumes offered as a vegetable or included in combination entrees.

[g]Includes legumes offered as a meat alternate.

n.a. = Not applicable.

Table M.20. Food Sources of Calories and Nutrients in School Breakfast Program Breakfasts *Offered* to Students at Schools Participating in the HealthierUS School Challenge (HUSSC) and All Elementary Schools Nationwide

Major Food Group	Percentage Contribution to Average Amount Offered: HUSSC Schools	Percentage Contribution to Average Amount Offered: All Elementary Schools	Top 10 Food Sources	Percentage Contribution to Average Amount Offered: HUSSC Schools	Percentage Contribution to Average Amount Offered: All Elementary Schools
Calories					
Breads/Grains	37.0	37.6	1% milk, unflavored	12.0	7.9
Milk	27.1	26.4	Fruit juice, 100%	10.1	9.1
Fruit	14.0	13.5	Cold cereal	9.2	10.7
Combination Entrees	10.4	10.5	1% milk, flavored	7.4	7.7
Meat/Meat Alternate	5.3	5.6	Sweet rolls, donuts, toaster pastries	7.2	5.8
Accompaniments[a]	5.2	5.5	Condiments and spreads	5.1	5.5
Desserts	0.7	0.4	Skim or nonfat milk, flavored	4.2	3.7
Other	0.3	0.4	Muffins, sweet/quick breads	4.2	4.9
Vegetables[b]	0.0	0.2	Pancakes, waffles, French toast	3.8	3.7
			Bread, rolls, bagels	3.6	2.4
Protein					
Milk	53.5	51.2	1% milk, unflavored	27.3	18.3
Breads/Grains	21.0	21.7	1% milk, flavored	10.1	10.8
Combination Entrees	12.0	12.4	Skim or nonfat milk, unflavored	7.9	7.9
Meat/Meat Alternate	8.5	9.2	Skim or nonfat milk, flavored	7.0	6.3
Fruit	3.3	3.4	Pizza and pizza products	4.0	2.1
Accompaniments[a]	0.8	1.3	Bread, rolls, bagels	3.9	2.5
Other	0.7	0.5	Cold cereal	3.9	5.2
Desserts	0.4	0.1	Breakfast sandwiches[c]	3.1	4.3
Vegetables[b]	0.0	0.1	Pancakes, waffles, French toast	2.8	2.9
			Sausages, hot dogs, cold cuts	2.8	2.3
Vitamin A (mcg RE)					
Milk	53.7	50.8	1% milk, unflavored	27.2	18.1
Breads/Grains	34.3	36.4	Cold cereal	25.3	27.9
Fruit	4.2	4.6	1% milk, flavored	10.3	10.9
Combination Entrees	3.8	4.2	Skim or nonfat milk, unflavored	8.3	8.2
Meat/Meat Alternate	2.0	2.4	Skim or nonfat milk, flavored	6.8	6.0
Accompaniments[a]	1.7	1.6	Sweet rolls, donuts, toaster pastries	3.0	1.9
Desserts	0.3	0.0	Fruit juice, 100%	2.4	2.6
Other	0.0	0.0	Grain/fruit cereal bars, granola bars	2.2	2.0
Vegetables[b]	0.0	0.0	Condiments and spreads	1.7	1.6
			Pancakes, waffles, French toast	1.5	1.8
Vitamin C					
Fruit	85.5	82.8	Fruit juice, 100%	73.2	67.9
Breads/Grains	11.6	13.0	Cold cereal	10.0	10.3
Combination Entrees	1.2	1.2	Citrus fruit	8.5	9.5
Milk	1.0	1.2	Apple	1.1	1.0
Accompaniments[a]	0.3	0.2	Banana	1.0	1.3
Meat/Meat Alternate	0.3	0.3	1% milk, flavored	1.0	1.0
Desserts	0.1	0.1	Sweet rolls, donuts, toaster pastries	0.9	1.4
Vegetables[b]	0.0	0.2	Other food bars, bag/pre–plated lunches	0.9	0.8
Other	0.0	0.9	Melons	0.4	0.1
			Grain/fruit cereal bars, granola bars	0.4	1.1

Table M.20 *(continued)*

Major Food Group	Percentage Contribution to Average Amount Offered: HUSSC Schools	Percentage Contribution to Average Amount Offered: All Elementary Schools	Top 10 Food Sources	Percentage Contribution to Average Amount Offered: HUSSC Schools	Percentage Contribution to Average Amount Offered: All Elementary Schools
Calcium					
Milk	70.1	67.7	1% milk, unflavored	35.5	24.0
Breads/Grains	15.5	16.4	1% milk, flavored	13.2	14.1
Combination Entrees	5.4	5.1	Skim or nonfat milk, unflavored	10.8	10.9
Meat/Meat Alternate	4.9	5.9	Skim or nonfat milk, flavored	9.0	8.1
Fruit	3.8	4.3	Cold cereal	6.1	7.4
Accompaniments[a]	0.3	0.5	Fruit juice, 100%	3.0	3.4
Desserts	0.1	0.0	Pizza and pizza products	2.5	1.3
Other	0.0	0.0	Yogurt	2.5	3.4
Vegetables[b]	0.0	0.0	Pancakes, waffles, French toast	1.9	1.8
			Cheese	1.8	1.9
Iron					
Breads/Grains	75.3	76.5	Cold cereal	49.6	52.0
Fruit	8.7	8.1	Fruit juice, 100%	7.3	6.5
Combination Entrees	8.3	8.3	Bread, rolls, bagels	5.3	3.8
Milk	4.9	4.5	Sweet rolls, donuts, toaster pastries	5.0	4.3
Meat/Meat Alternate	1.8	1.6	Pancakes, waffles, French toast	3.7	3.5
Accompaniments[a]	0.5	0.7	Muffins, sweet/quick breads	3.6	3.2
Desserts	0.3	0.2	Grain/fruit cereal bars, granola bars	2.3	2.7
Other	0.1	0.1	Pizza and pizza products	2.3	1.2
Vegetables[b]	0.0	0.0	Crackers and pretzels	2.1	2.2
			Breakfast sandwiches[c]	2.0	2.3
Total Fat					
Breads/Grains	41.6	41.4	1% milk, unflavored	11.5	7.3
Combination Entrees	19.3	19.6	Sweet rolls, donuts, toaster pastries	11.5	9.6
Milk	18.0	19.7	Muffins, sweet/quick breads	7.1	7.9
Meat/Meat Alternate	12.4	11.3	Pizza and pizza products	5.8	2.8
Accompaniments[a]	4.9	5.3	Sausages, hot dogs, cold cuts	5.6	4.3
Fruit	1.4	1.4	Breakfast sandwiches[c]	5.5	6.9
Desserts	1.3	0.4	Pancakes, waffles, French toast	4.6	4.7
Other	1.0	0.6	1% milk, flavored	4.5	4.5
Vegetables[b]	0.1	0.4	Condiments and spreads	4.4	5.3
			Buttered toast/bagels with cream cheese	4.1	3.9
Saturated Fat					
Milk	32.2	34.0	1% milk, unflavored	21.1	13.0
Breads/Grains	30.7	27.9	1% milk, flavored	7.9	7.7
Combination Entrees	18.4	18.3	Sweet rolls, donuts, toaster pastries	7.7	6.2
Meat/Meat Alternate	12.7	12.3	Pizza and pizza products	6.2	2.9
Accompaniments[a]	3.8	5.8	Breakfast sandwiches[c]	5.1	6.7
Other	0.9	0.5	Sausages, hot dogs, cold cuts	5.0	3.7
Fruit	0.7	0.7	Grain/fruit cereal bars, granola bars	4.7	4.2
Desserts	0.6	0.3	Muffins, sweet/quick breads	4.4	4.5
Vegetables[b]	0.0	0.3	Buttered toast/bagels with cream cheese	4.3	3.0
			Condiments and spreads	3.6	5.8

Table M.20 *(continued)*

Major Food Group	Percentage Contribution to Average Amount Offered: HUSSC Schools	Percentage Contribution to Average Amount Offered: All Elementary Schools	Top 10 Food Sources	Percentage Contribution to Average Amount Offered: HUSSC Schools	Percentage Contribution to Average Amount Offered: All Elementary Schools
Cholesterol					
Milk	29.0	26.0	1% milk, unflavored	18.7	10.6
Meat/Meat Alternate	26.5	24.5	Eggs	17.3	16.5
Combination Entrees	21.0	25.0	Breakfast sandwiches[c]	9.2	13.0
Breads/Grains	20.6	21.6	Pancakes, waffles, French toast	8.6	9.5
Accompaniments[a]	1.1	2.2	Sausages, hot dogs, cold cuts	6.3	4.5
Desserts	1.0	0.1	Muffins, sweet/quick breads	6.0	5.4
Other	0.9	0.5	1% milk, flavored	5.2	4.7
Fruit	0.0	0.0	Mexican–style entrees	4.4	7.6
Vegetables[b]	0.0	0.0	Sweet rolls, donuts, toaster pastries	3.1	5.0
			Hot dog/corn dog[d]	2.8	1.8
Sodium					
Breads/Grains	45.9	46.3	Cold cereal	11.9	13.6
Milk	21.2	20.2	1% milk, unflavored	10.4	6.9
Combination Entrees	20.2	19.9	Pancakes, waffles, French toast	6.8	6.4
Meat/Meat Alternate	7.0	7.6	Pizza and pizza products	6.7	3.6
Accompaniments[a]	3.3	3.8	Breakfast sandwiches[c]	6.2	7.3
Other	1.3	1.0	Bread, rolls, bagels	5.9	3.7
Fruit	0.6	0.6	Sweet rolls, donuts, toaster pastries	5.1	4.5
Desserts	0.3	0.3	1% milk, flavored	5.1	5.4
Vegetables[b]	0.1	0.4	Muffins, sweet/quick breads	3.9	4.2
			Biscuits, croissants, cornbread	3.6	4.1
Dietary Fiber					
Breads/Grains	52.1	50.1	Cold cereal	15.6	20.1
Fruit	25.0	27.2	Bread, rolls, bagels	8.1	4.0
Milk	10.4	10.5	Muffins, sweet/quick breads	6.5	6.1
Combination Entrees	8.1	8.6	Apple	6.1	6.0
Accompaniments[a]	1.8	2.0	1% milk, flavored	5.7	5.9
Meat/Meat Alternate	1.3	0.7	Pancakes, waffles, French toast	5.6	4.6
Desserts	1.2	0.5	Sweet rolls, donuts, toaster pastries	5.5	4.3
Vegetables[b]	0.0	0.3	Fruit juice, 100%	5.3	4.9
Other	0.0	0.2	Skim or nonfat milk, flavored	4.6	4.1
			Citrus fruit	4.1	4.5
Calories from Solid Fats and Added Sugars					
Breads/Grains	43.3	43.0	Sweet rolls, donuts, toaster pastries	12.5	10.5
Milk	22.9	23.7	Condiments and spreads	11.3	11.0
Accompaniments	11.3	11.0	Cold cereal	10.4	11.3
Combination Entrees	11.1	10.5	1% milk, flavored	9.7	9.7
Meat/Meat Alternate	8.5	8.9	1% milk, unflavored	7.4	4.7
Fruit	1.2	1.7	Skim or nonfat milk, flavored	5.3	4.4
Desserts	1.0	0.5	Muffins, sweet/quick breads	4.5	4.9
Other	0.6	0.5	Pizza and pizza products	3.7	1.8
Vegetables	0.0	0.3	Crackers and pretzels	3.6	4.1
			Yogurt	3.3	4.1

Table M.20 *(continued)*

Major Food Group	Percentage Contribution to Average Amount Offered: HUSSC Schools	Percentage Contribution to Average Amount Offered: All Elementary Schools	Top 10 Food Sources	Percentage Contribution to Average Amount Offered: HUSSC Schools	Percentage Contribution to Average Amount Offered: All Elementary Schools
Solid Fats					
Breads/Grains	40.9	39.1	Sweet rolls, donuts, toaster pastries	14.8	12.5
Milk	22.5	25.5	1% milk, unflavored	14.7	9.5
Combination Entrees	18.4	17.7	Pizza and pizza products	6.8	3.3
Meat/Meat Alternate	11.4	11.3	1% milk, flavored	5.9	6.1
Accompaniments	4.6	4.8	Breakfast sandwiches	5.7	7.0
Other	1.2	0.6	Sausages, hot dogs, cold cuts	5.5	4.1
Desserts	0.9	0.5	Buttered toast/bagels with cream cheese	4.9	4.7
Vegetables	0.1	0.5	Condiments and spreads	4.5	4.8
Fruit	0.0	0.0	Crackers and pretzels	3.9	4.3
			Muffins, sweet/quick breads	3.8	3.5
Added Sugars					
Breads/Grains	45.8	46.8	Cold cereal	18.2	19.6
Milk	23.4	22.0	Condiments and spreads	18.2	17.0
Accompaniments	18.2	17.0	1% milk, flavored	13.5	13.3
Meat/Meat Alternate	5.6	6.6	Sweet rolls, donuts, toaster pastries	10.3	8.6
Combination Entrees	3.6	3.4	Skim or nonfat milk, flavored	9.9	8.1
Fruit	2.4	3.4	Yogurt	5.5	6.6
Desserts	1.0	0.4	Muffins, sweet/quick breads	5.1	6.3
Vegetables	0.0	0.0	Grain/fruit cereal bars, granola bars	4.2	4.1
Other	0.0	0.4	Crackers and pretzels	3.3	3.9
			Pancakes, waffles, French toast	1.9	1.9

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research. Estimates for "All Elementary Schools" are weighted to be representative of all public elementary schools offering the National School Lunch Program.

[a]Includes condiments, toppings, spreads, and salad dressing.

[b]Mainly hash browns and similar potato products.

[c]Includes sandwiches with sausage, egg, cheese, ham, or other types of meat on a biscuit, English muffin, bagel, or croissant.

[d]Includes sausage wrapped in a pancake.

RE=Retinol equivalent

Table M.21. Choice and Variety in School Breakfast Program Breakfasts in Schools Participating in the HealthierUS School Challenge (HUSSC) and All Elementary Schools Nationwide

	Percentage of Daily Breakfast Menus	
	HUSSC Schools	All Elementary Schools
Number of Types of Milk Offered per Day		
No more than 1	30	17
2	25	38
3	30	26
4 or more	15	19
Median number of different items per day	2	2
Median number of different items per week[a]	3	2
Number of Fruits/Vegetables/100% Juices Offered per Day[b]		
No more than 1	32	36
2	21	25
3	18	20
4	18	10
5 or more	11	9
Median number of different items per day	2	2
Median number of different items per week[a]	5	3
Number of Separate Grains/Breads Offered per Day[c]		
No more than 1	37	33
2	21	34
3	17	19
4	14	8
5 or more	12	6
Median number of different items per day	2	2
Median number of different items per week[a]	5	3
Number of Separate Meats/Meat Alternates Offered per Day[d]		
None	62	61
1	27	31
2 or more	11	8
Median number of different items per day	0	0
Median number of different items per week[a]	1	1
Number of Combination Entrees Offered per Day		
None	62	66
1	36	29
2 or more	2	6
Median number of different items per day	1	0
Median number of different items per week[a]	2	1
Number of Daily Menus	**169**	**1,349**
Number of Schools	**35**	**282**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research. Estimates for "All Elementary Schools" are weighted to be representative of all public elementary schools offering the National School Lunch Program.

[a]Includes only schools that provided menu information for five days.

[b]Fruits and vegetables not included in combination entrees.

[c]Grains and breads not included in combination entrees. All varieties of cold cereal were counted as one grain/bread choice.

[d]Meats and meat alternates not included in combination entrees.

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Table M.22. Most Commonly Offered Foods in School Breakfast Program Breakfasts for Schools Participating in the HealthierUS School Challenge (HUSSC) and All Elementary Schools Nationwide

	Percentage of Daily Breakfast Menus	
	HUSSC Schools	All Elementary Schools
Milk	99[a]	100
Unflavored	99	100
1% fat	89	73
Skim or nonfat	40	42
2% fat	6	29
Flavored	66	69
1% fat	44	48
Skim or nonfat	30	27
Fruits and 100% Juices	98	97
100% Fruit Juice	84	83
Non–citrus juice	67	63
Apple juice	57	53
Grape juice	40	24
Fruit juice blend	14	10
Citrus juice	59	61
Orange juice	58	60
Fresh fruit	37	35
Apple	21	19
Orange	12	13
Banana	10	12
Canned fruit[b]	19	20
Peaches and pears	8	10
Applesauce	6	5
Separate Grains/Breads[c]	88	93
Cold cereal	70	75
Sweetened	65	66
Unsweetened	40	36
Pancakes, waffles, French toast	21	20
Breads, rolls, bagels, other plain breads	32	19
Crackers (mainly graham)	19	19
Muffins (excludes English muffins), sweet/quick breads	15	19
Pastries	18	18
Cinnamon buns	8	7
Toaster pastries	9	5
Buttered toast, bagels with cream cheese	13	17
Biscuits, cornbread	12	10
Grain and fruit cereal bars, granola bars	12	9
Hot cereal	5	7

Table M.22 *(continued)*

	Percentage of Daily Breakfast Menus	
	HUSSC Schools	All Elementary Schools
Separate Meats/Meat Alternates[d]	38	39
Yogurt	14	18
Low fat or fat–free	10	14
Sausage	12	11
Eggs	9	9
Cheese	9	6
Combination Entrees	38	34
Breakfast sandwiches[e]	9	10
Pizza (all types)	12	8
Sausage with pancake, corn dog, similar products	8	7
Breakfast burritos	2	5
Number of Daily Menus	**169**	**1,367**
Number of Schools	**35**	**282**

Source: School Nutrition Dietary Assessment Study-IV, Menu Survey, school year 2009–2010. Tabulations prepared by Mathematica Policy Research. Estimates for "All Elementary Schools" are weighted to be representative of all public elementary schools offering the National School Lunch Program.

Note: Table is limited to food groups offered in at least five percent of menus, in HUSSC schools, all elementary schools or both. The table does not account for individual food items offered as part of food bars or bagged/pre–plated meals.

[a]One HUSSC school offered a pre–plated meal every day. The meal included fluid milk, but the milk was not coded separately.

[b]With the exception of applesauce, the majority of canned fruit was sweetened.

[c]Grains and breads not included in combination entrees or served solely with a specific menu item.

[d]Meats and meat alternates not included in combination entrees.

[e]Includes sandwiches with egg, cheese, sausage, ham or other types of meat on a biscuit, English muffin, bagel, or croissant.

APPENDIX N

DATA COLLECTION INSTRUMENTS

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ID#: |__|__|__|__|__|__|__|__|

SFA:_____

City and State:_____

Date: |__|__| / |__|__| /|__|__|__|__|
Month Day Year

OMB Clearance Number: 0584-0527

Expiration Date: 09/30/2012

School Nutrition Dietary Assessment Study

School Food Authority Recruitment Interview

RECRUITER NAME: _____

CONTACT RECORD

Date: |__|__| / |__|__| / |__|__|__|__| Time: |__|__| : |__|__|

STATUS: _____

_____

_____

_____

_____

DATE COMPLETED: |__|__| / |__|__| / |_2_|_0_|__|__|

RECRUITMENT INTERVIEW

SFA: _____ **SCHOOL 1:** _____

SFA DIRECTOR: _____ **SCHOOL 2:** _____

PHONE: |___|___|___|-|___|___|___|-|___|___|___|___| **SCHOOL 3:** _____

EMAIL: _____ **SCHOOL 4:** _____

INTRODUCTORY REMARKS

Confirm receipt of introductory letter and brochure.

If material hasn't been received, check mailing address and make arrangements for re-mailing.

Check on whether respondent was contacted by State Child Nutrition Director.

Answer questions respondent may have about the study or about how/why the SFA and the specific schools within the SFA were sampled for the study.

Confirm participation.

0. The first question I have is whether your district has any schools that began operating during the 2007 - 2008 school year or later? Please include any new schools for 2009 – 2010 (even if they're not officially opened yet).

IF YES: Can you give me the name(s) and zip code(s) of the new school(s)? (If necessary, you can fax me a list at 609-799-0005.)

Does (SCHOOL) participate in the NSLP? **IF YES:** What grades are included in the school?

0. **a. NEW SCHOOLS**	**b. ZIP CODE**	**c. PARTICIPATE IN NSLP?**	**d. GRADES**
_____ _____	|__|__|__|__|__|	YES → NO → **SKIP TO NEXT SCHOOL**	|__|__| to |__|__|
_____ _____	|__|__|__|__|__|	YES → NO → **SKIP TO NEXT SCHOOL**	|__|__| to |__|__|
_____ _____	|__|__|__|__|__|	YES → NO → **SKIP TO NEXT PAGE**	|__|__| to |__|__|

Because you have [number] new school(s) in your SFA, there is a slight chance we may need to change the schools that have been selected to participate in the study. I will check into this after we complete this call and get back to you shortly.

We have made a preliminary selection of schools for the study.. The first school we plan to contact in your district is (INSERT SCHOOL 1).

	SCHOOL 1	SCHOOL 2	SCHOOL 3	SCHOOL 4
NAMES OF SCHOOLS	NAME MPR ID LEVEL	NAME MPR ID LEVEL	NAME MPR ID LEVEL	NAME MPR ID LEVEL
	☐ SCHOOL CLOSED ☐ OTHER SPECIAL CASE (explain):______	☐ SCHOOL CLOSED ☐ OTHER SPECIAL CASE (explain):______	☐ SCHOOL CLOSED ☐ OTHER SPECIAL CASE (explain):______	☐ SCHOOL CLOSED ☐ OTHER SPECIAL CASE (explain):______
1. Can you tell me the name of the principal at SCHOOL and give me his/her contact information?	NAME PHONE # EMAIL	NAME PHONE # EMAIL	NAME PHONE # EMAIL	NAME PHONE # EMAIL
2. What grades are included in SCHOOL? **CHECK ALL THAT APPLY**	P ☐ Pre-K 6 ☐ 6 K ☐ K 7 ☐ 7 1 ☐ 1 8 ☐ 8 2 ☐ 2 9 ☐ 9 3 ☐ 3 10 ☐ 10 4 ☐ 4 11 ☐ 11 5 ☐ 5 12 ☐ 12	P ☐ Pre-K 6 ☐ 6 K ☐ K 7 ☐ 7 1 ☐ 1 8 ☐ 8 2 ☐ 2 9 ☐ 9 3 ☐ 3 10 ☐ 10 4 ☐ 4 11 ☐ 11 5 ☐ 5 12 ☐ 12	P ☐ Pre-K 6 ☐ 6 K ☐ K 7 ☐ 7 1 ☐ 1 8 ☐ 8 2 ☐ 2 9 ☐ 9 3 ☐ 3 10 ☐ 10 4 ☐ 4 11 ☐ 11 5 ☐ 5 12 ☐ 12	P ☐ Pre-K 6 ☐ 6 K ☐ K 7 ☐ 7 1 ☐ 1 8 ☐ 8 2 ☐ 2 9 ☐ 9 3 ☐ 3 10 ☐ 10 4 ☐ 4 11 ☐ 11 5 ☐ 5 12 ☐ 12
3. Does SCHOOL participate in the National School Lunch Program (NSLP)?	1 ☐ Yes 0 ☐ No → SKIP TO NEXT SCHOOL	1 ☐ Yes 0 ☐ No → SKIP TO NEXT SCHOOL	1 ☐ Yes 0 ☐ No → SKIP TO NEXT SCHOOL	1 ☐ Yes 0 ☐ No → **GO TO PAGE 6**
3a. What grades at SCHOOL are served by the NSLP? **CHECK ALL THAT APPLY**	A ☐ All grades served P ☐ Pre-K 6 ☐ 6 K ☐ K 7 ☐ 7 1 ☐ 1 8 ☐ 8 2 ☐ 2 9 ☐ 9 3 ☐ 3 10 ☐ 10 4 ☐ 4 11 ☐ 11 5 ☐ 5 12 ☐ 12	A ☐ All grades served P ☐ Pre-K 6 ☐ 6 K ☐ K 7 ☐ 7 1 ☐ 1 8 ☐ 8 2 ☐ 2 9 ☐ 9 3 ☐ 3 10 ☐ 10 4 ☐ 4 11 ☐ 11 5 ☐ 5 12 ☐ 12	A ☐ All grades served P ☐ Pre-K 6 ☐ 6 K ☐ K 7 ☐ 7 1 ☐ 1 8 ☐ 8 2 ☐ 2 9 ☐ 9 3 ☐ 3 10 ☐ 10 4 ☐ 4 11 ☐ 11 5 ☐ 5 12 ☐ 12	A ☐ All grades served P ☐ Pre-K 6 ☐ 6 K ☐ K 7 ☐ 7 1 ☐ 1 8 ☐ 8 2 ☐ 2 9 ☐ 9 3 ☐ 3 10 ☐ 10 4 ☐ 4 11 ☐ 11 5 ☐ 5 12 ☐ 12

NAMES OF SCHOOLS	SCHOOL 1	SCHOOL 2	SCHOOL 3	SCHOOL 4
	______ NAME ______ MPR ID ______ LEVEL	______ NAME ______ MPR ID ______ LEVEL	______ NAME ______ MPR ID ______ LEVEL	______ NAME ______ MPR ID ______ LEVEL
	☐ SCHOOL CLOSED ☐ OTHER SPECIAL CASE (explain):______	☐ SCHOOL CLOSED ☐ OTHER SPECIAL CASE (explain):______	☐ SCHOOL CLOSED ☐ OTHER SPECIAL CASE (explain):______	☐ SCHOOL CLOSED ☐ OTHER SPECIAL CASE (explain):______
4. (CODE IF KNOWN) Does SCHOOL participate in the School Breakfast Program (SBP)?	1 ☐ Yes 0 ☐ No → **GO TO Q5**	1 ☐ Yes 0 ☐ No→ **GO TO Q5**	1 ☐ Yes 0 ☐ No → **GO TO Q5**	1 ☐ Yes 0 ☐ No → **GO TO Q5**
4a. What grades at SCHOOL are served by the SBP? **CHECK ALL THAT APPLY**	A ☐ All grades served P ☐ Pre-K 6 ☐ 6 K ☐ K 7 ☐ 7 1 ☐ 1 8 ☐ 8 2 ☐ 2 9 ☐ 9 3 ☐ 3 10 ☐ 10 4 ☐ 4 11 ☐ 11 5 ☐ 5 12 ☐ 12	A ☐ All grades served P ☐ Pre-K 6 ☐ 6 K ☐ K 7 ☐ 7 1 ☐ 1 8 ☐ 8 2 ☐ 2 9 ☐ 9 3 ☐ 3 10 ☐ 10 4 ☐ 4 11 ☐ 11 5 ☐ 5 12 ☐ 12	A ☐ All grades served P ☐ Pre-K 6 ☐ 6 K ☐ K 7 ☐ 7 1 ☐ 1 8 ☐ 8 2 ☐ 2 9 ☐ 9 3 ☐ 3 10 ☐ 10 4 ☐ 4 11 ☐ 11 5 ☐ 5 12 ☐ 12	A ☐ All grades served P ☐ Pre-K 6 ☐ 6 K ☐ K 7 ☐ 7 1 ☐ 1 8 ☐ 8 2 ☐ 2 9 ☐ 9 3 ☐ 3 10 ☐ 10 4 ☐ 4 11 ☐ 11 5 ☐ 5 12 ☐ 12
5. Does SCHOOL operate under Provision 2 for the National School Lunch Program (NSLP) or the School Breakfast Program (SBP)? **NOTE:** Provision 2 schools serve meals at no charge to all children as determined by application once every three years.	1 ☐ NSLP→ **GO TO Q8** 2 ☐ SBP → **GO TO Q8** 0 ☐ None of the above	1 ☐ NSLP→ **GO TO Q8** 2 ☐ SBP → **GO TO Q8** 0 ☐ None of the above	1 ☐ NSLP→ **GO TO Q8** 2 ☐ SBP → **GO TO Q8** 0 ☐ None of the above	1 ☐ NSLP→ **GO TO Q8** 2 ☐ SBP → **GO TO Q8** 0 ☐ None of the above

NAMES OF SCHOOLS	SCHOOL 1 NAME MPR ID LEVEL	SCHOOL 2 NAME MPR ID LEVEL	SCHOOL 3 NAME MPR ID LEVEL	SCHOOL 4 NAME MPR ID LEVEL
	☐ SCHOOL CLOSED ☐ OTHER SPECIAL CASE (explain):_____	☐ SCHOOL CLOSED ☐ OTHER SPECIAL CASE (explain):_____	☐ SCHOOL CLOSED ☐ OTHER SPECIAL CASE (explain):_____	☐ SCHOOL CLOSED ☐ OTHER SPECIAL CASE (explain):_____
6. Does SCHOOL operate under Provision 3 for the NSLP or SBP? **NOTE:** Provision 3 schools serve meals at no charge to all children regardless of eligibility status.	1 ☐ NSLP→ **GO TO Q8** 2 ☐ SBP → **GO TO Q8** 0 ☐ None of the above	1 ☐ NSLP→ **GO TO Q8** 2 ☐ SBP → **GO TO Q8** 0 ☐ None of the above	1 ☐ NSLP→ **GO TO Q8** 2 ☐ SBP → **GO TO Q8** 0 ☐ None of the above	1 ☐ NSLP→ **GO TO Q8** 2 ☐ SBP → **GO TO Q8** 0 ☐ None of the above
7. Does SCHOOL offer universal-free breakfast?	1 ☐ Yes 0 ☐ No n.a. ☐ NA (no breakfast program)	1 ☐ Yes 0 ☐ No n.a. ☐ NA (no breakfast program)	1 ☐ Yes 0 ☐ No n.a. ☐ NA (no breakfast program)	1 ☐ Yes 0 ☐ No n.a. ☐ NA (no breakfast program)
8. Does SCHOOL operate any NSLP or SBP year-round meal programs? **CHECK ALL THAT APPLY**	1 ☐ NSLP 2 ☐ SBP 0 ☐ None of the above	1 ☐ NSLP 2 ☐ SBP 0 ☐ None of the above	1 ☐ NSLP 2 ☐ SBP 0 ☐ None of the above	1 ☐ NSLP 2 ☐ SBP 0 ☐ None of the above
9. Does SCHOOL offer reimbursable afterschool snacks?	1 ☐ Yes 0 ☐ No	1 ☐ Yes 0 ☐ No	1 ☐ Yes 0 ☐ No	1 ☐ Yes 0 ☐ No
NOTE: ELEMENTARY SCHOOLS ONLY 10. Does SCHOOL participate in the Fresh Fruit and Vegetable Program?	1 ☐ Yes 0 ☐ No	1 ☐ Yes 0 ☐ No	1 ☐ Yes 0 ☐ No	1 ☐ Yes 0 ☐ No

NAMES OF SCHOOLS	SCHOOL 1	SCHOOL 2	SCHOOL 3	SCHOOL 4
	NAME MPR ID LEVEL	NAME MPR ID LEVEL	NAME MPR ID LEVEL	NAME MPR ID LEVEL
	☐ SCHOOL CLOSED ☐ OTHER SPECIAL CASE (explain):______________	☐ SCHOOL CLOSED ☐ OTHER SPECIAL CASE (explain):______________	☐ SCHOOL CLOSED ☐ OTHER SPECIAL CASE (explain):______________	☐ SCHOOL CLOSED ☐ OTHER SPECIAL CASE (explain):______________
11. Which of the following menu planning options is currently used for SCHOOL?	1 ☐ Nutrient-Based (NSMP) 2 ☐ Assisted NSMP 3 ☐ Enhanced Food-Based 4 ☐ Traditional Food-Based 5 ☐ Other *(Explain)* ______________ 0 ☐ DON'T KNOW	1 ☐ Nutrient-Based (NSMP) 2 ☐ Assisted NSMP 3 ☐ Enhanced Food-Based 4 ☐ Traditional Food-Based 5 ☐ Other *(Explain)* ______________ 0 ☐ DON'T KNOW	1 ☐ Nutrient-Based (NSMP) 2 ☐ Assisted NSMP 3 ☐ Enhanced Food-Based 4 ☐ Traditional Food-Based 5 ☐ Other *(Explain)* ______________ 0 ☐ DON'T KNOW	1 ☐ Nutrient-Based (NSMP) 2 ☐ Assisted NSMP 3 ☐ Enhanced Food-Based 4 ☐ Traditional Food-Based 5 ☐ Other *(Explain)* ______________ 0 ☐ DON'T KNOW
12. Are meals for SCHOOL partly or fully prepared in an off-site kitchen?	1 ☐ Yes 0 ☐ No	1 ☐ Yes 0 ☐ No	1 ☐ Yes 0 ☐ No	1 ☐ Yes 0 ☐ No
13. What is the name of the foodservice manager or other person who will complete the menu survey for SCHOOL? What is the best way to reach him/her?	NAME 1 ☐ PHONE # 2 ☐ EMAIL	NAME 1 ☐ PHONE # 2 ☐ EMAIL	NAME 1 ☐ PHONE # 2 ☐ EMAIL	NAME 1 ☐ PHONE # 2 ☐ EMAIL
13a. What is the best time or day to reach him/her?	DAY TIME 1 ☐ AM 2 ☐ PM	DAY TIME 1 ☐ AM 2 ☐ PM	DAY TIME 1 ☐ AM 2 ☐ PM	DAY TIME 1 ☐ AM 2 ☐ PM
13b. Is (he/she) a district employee or does (he/she) work for a Food Service Management Company?	1 ☐ District Employee 2 ☐ Food Service Management Company Employee	1 ☐ District Employee 2 ☐ Food Service Management Company Employee	1 ☐ District Employee 2 ☐ Food Service Management Company Employee	1 ☐ District Employee 2 ☐ Food Service Management Company Employee

TARGET WEEK

We would like to schedule a specific week for schools in your district to complete the menu survey. For logistical reasons, all of the schools should complete the survey the same week. We have the following weeks available:

OPTION 1: |__|__| / |__|__| / |__|__|__|__| (Month Day Year) 1 ☐ Yes 0 ☐ No 3 ☐ Maybe

OPTION 2: |__|__| / |__|__| / |__|__|__|__| (Month Day Year) 1 ☐ Yes 0 ☐ No 3 ☐ Maybe

OPTION 3: |__|__| / |__|__| / |__|__|__|__| (Month Day Year) 1 ☐ Yes 0 ☐ No 3 ☐ Maybe

We will be conducting a joint over-the-phone training session with the person at each school who will be completing the menu survey. Is that something you would like to coordinate centrally or should we work that out with the food service managers and others at the schools?

- ☐ SFA director will coordinate centrally ----- OK. We will be in touch closer to the date of the target week.
- ☐ MPR will schedule with schools.

Those are all the questions we have at this time. We will confirm this information with you in an email. [MAKE SURE WE HAVE THEIR E-MAIL ADDRESS]. [IF NO NEW SCHOOLS WERE REPORTED] Please let the foodservice managers in the individual schools know that they have been selected for the study and confirm with them the potential target week(s) for the menu survey. Also, please talk to the principal in each school and encourage them to participate in the study. I will send you some additional information about the study that you can pass along to the foodservice managers and principals. We may need to contact you for additional information later as we prepare to get in touch with the schools.

[IF NEW SCHOOLS WERE REPORTED] I will get back to you shortly about whether we need to make any changes in the schools that have been selected to participate in the study.

Thank you for your time. (I look forward to speaking with you again soon.) If you have any questions (before we speak again), please call me directly at: (609) 799-3535.

ID#: |__|__|__|__|__|__|__|__|

SFA: _____

City and State: _____

OMB Clearance Number: 0584-0527

Expiration Date: 09/30/2012

School Nutrition Dietary Assessment Study

School Food Authority Director Survey

School 1: _____

School 2: _____

School 3: _____

School 4 _____

Sponsored by:

U.S. Department of Agriculture
Food and Nutrition Service

INSTRUCTIONS

- Please answer all of the questions.
- Unless you see the words MARK ALL THAT APPLY after a question, please mark only one answer for each question.
- If you have any questions about the study or about completing this survey, please do not hesitate to contact Annalee Kelly by phone at 1-xxx-xxx-xxxx or e-mail: akelly@mathematica-mpr.com

The information you provide will be used only for statistical purposes. In accordance with the Confidential Information Protection and Statistical Efficiency Act of 2002, your responses will not be disclosed in identifiable form without your consent.

Participation is completely voluntary. Choosing not to participate will not affect your employment or your district's participation in school meal programs in any way.

We thank you for your cooperation and participation in this very important study.

FOR ASSISTANCE CALL TOLL FREE: 1-xxx-xxx-xxxx

SECTION I: SCHOOL CHARACTERISTICS AND OPERATIONS

NAMES OF SCHOOLS	SCHOOL 1	SCHOOL 2	SCHOOL 3	SCHOOL 4
	________ NAME ________ MPR ID ________ LEVEL	________ NAME ________ MPR ID ________ LEVEL	________ NAME ________ MPR ID ________ LEVEL	________ NAME ________ MPR ID ________ LEVEL
1. How many students in SCHOOL are approved for free meals in the 2009 – 2010 school year?	☐ ALL STUDENTS |___|___|___|	☐ ALL STUDENTS |___|___|___|	☐ ALL STUDENTS |___|___|___|	☐ ALL STUDENTS |___|___|___|
2. How many students in SCHOOL are approved for reduced-price meals in the 2009 – 2010 school year?	☐ ALL STUDENTS |___|___|___|	☐ ALL STUDENTS |___|___|___|	☐ ALL STUDENTS |___|___|___|	☐ ALL STUDENTS |___|___|___|
3. What grade or age groups were used when planning NSLP/lunch menus for the 2009 – 2010 school year?	MARK ALL THAT APPLY Established Groups 1 ☐ Preschool 2 ☐ Grades K-3 3 ☐ Grades K-6 4 ☐ Grades 4-12 5 ☐ Grades 7-12 6 ☐ Ages 3-6 7 ☐ Ages 7-10 8 ☐ Ages 11-13 9 ☐ Ages 14 and older Customized Age Groups 10 ☐ Ages 3-5 11 ☐ Ages 6-11 12 ☐ Ages 12-14 13 ☐ Ages 15-17 14 ☐ Ages 5-10 15 ☐ Ages 14-17 Other (Specify) 16 ☐ Ages ________ 17 ☐ Ages ________ 18 ☐ Ages ________	MARK ALL THAT APPLY Established Groups 1 ☐ Preschool 2 ☐ Grades K-3 3 ☐ Grades K-6 4 ☐ Grades 4-12 5 ☐ Grades 7-12 6 ☐ Ages 3-6 7 ☐ Ages 7-10 8 ☐ Ages 11-13 9 ☐ Ages 14 and older Customized Age Groups 10 ☐ Ages 3-5 11 ☐ Ages 6-11 12 ☐ Ages 12-14 13 ☐ Ages 15-17 14 ☐ Ages 5-10 15 ☐ Ages 14-17 Other (Specify) 16 ☐ Ages ________ 17 ☐ Ages ________ 18 ☐ Ages ________	MARK ALL THAT APPLY Established Groups 1 ☐ Preschool 2 ☐ Grades K-3 3 ☐ Grades K-6 4 ☐ Grades 4-12 5 ☐ Grades 7-12 6 ☐ Ages 3-6 7 ☐ Ages 7-10 8 ☐ Ages 11-13 9 ☐ Ages 14 and older Customized Age Groups 10 ☐ Ages 3-5 11 ☐ Ages 6-11 12 ☐ Ages 12-14 13 ☐ Ages 15-17 14 ☐ Ages 5-10 15 ☐ Ages 14-17 Other (Specify) 16 ☐ Ages ________ 17 ☐ Ages ________ 18 ☐ Ages ________	MARK ALL THAT APPLY Established Groups 1 ☐ Preschool 2 ☐ Grades K-3 3 ☐ Grades K-6 4 ☐ Grades 4-12 5 ☐ Grades 7-12 6 ☐ Ages 3-6 7 ☐ Ages 7-10 8 ☐ Ages 11-13 9 ☐ Ages 14 and older Customized Age Groups 10 ☐ Ages 3-5 11 ☐ Ages 6-11 12 ☐ Ages 12-14 13 ☐ Ages 15-17 14 ☐ Ages 5-10 15 ☐ Ages 14-17 Other (Specify) 16 ☐ Ages ________ 17 ☐ Ages ________ 18 ☐ Ages ________

NAMES OF SCHOOLS	SCHOOL 1 ______ NAME ______ MPR ID ______ LEVEL	SCHOOL 2 ______ NAME ______ MPR ID ______ LEVEL	SCHOOL 3 ______ NAME ______ MPR ID ______ LEVEL	SCHOOL 4 ______ NAME ______ MPR ID ______ LEVEL
4. Does SCHOOL use the USDA-approved modification for portion sizes and nutrient levels available for Traditional Food-Based Menu Planning?	1 ☐ Yes, Grades 4-12 meal pattern and nutrient standards for Grades K-6 2 ☐ Yes, Grades 4-12 meal pattern and nutrient standards for Grades 7-12 0 ☐ No n.a. ☐ NA (Traditional Food-Based system not used)	1 ☐ Yes, Grades 4-12 meal pattern and nutrient standards for Grades K-6 2 ☐ Yes, Grades 4-12 meal pattern and nutrient standards for Grades 7-12 0 ☐ No n.a. ☐ NA (Traditional Food-Based system not used)	1 ☐ Yes, Grades 4-12 meal pattern and nutrient standards for Grades K-6 2 ☐ Yes, Grades 4-12 meal pattern and nutrient standards for Grades 7-12 0 ☐ No n.a. ☐ NA (Traditional Food-Based system not used)	1 ☐ Yes, Grades 4-12 meal pattern and nutrient standards for Grades K-6 2 ☐ Yes, Grades 4-12 meal pattern and nutrient standards for Grades 7-12 0 ☐ No n.a. ☐ NA (Traditional Food-Based system not used)
5. What grade or age groups were used when planning SBP/ breakfast menus for school year 2009 - 2010?	MARK ALL THAT APPLY Established Groups 1 ☐ Preschool 2 ☐ Grades K-12 3 ☐ Grades 7-12 4 ☐ Age 3 5 ☐ Ages 3-5 6 ☐ Ages 3-6 7 ☐ Ages 7-10 8 ☐ Ages 11-13 9 ☐ Ages 14 and older Customized Age Groups 10 ☐ Ages 3-5 11 ☐ Ages 6-11 12 ☐ Ages 12-14 13 ☐ Ages 15-17 14 ☐ Ages 5-10 15 ☐ Ages 14-17 Other (Specify) 16 ☐ Ages ______ 17 ☐ Ages ______ 18 ☐ Ages ______ n.a. ☐ NA (do not participate in SBP)	MARK ALL THAT APPLY Established Groups 1 ☐ Preschool 2 ☐ Grades K-12 3 ☐ Grades 7-12 4 ☐ Age 3 5 ☐ Ages 3-5 6 ☐ Ages 3-6 7 ☐ Ages 7-10 8 ☐ Ages 11-13 9 ☐ Ages 14 and older Customized Age Groups 10 ☐ Ages 3-5 11 ☐ Ages 6-11 12 ☐ Ages 12-14 13 ☐ Ages 15-17 14 ☐ Ages 5-10 15 ☐ Ages 14-17 Other (Specify) 16 ☐ Ages ______ 17 ☐ Ages ______ 18 ☐ Ages ______ n.a. ☐ NA (do not participate in SBP)	MARK ALL THAT APPLY Established Groups 1 ☐ Preschool 2 ☐ Grades K-12 3 ☐ Grades 7-12 4 ☐ Age 3 5 ☐ Ages 3-5 6 ☐ Ages 3-6 7 ☐ Ages 7-10 8 ☐ Ages 11-13 9 ☐ Ages 14 and older Customized Age Groups 10 ☐ Ages 3-5 11 ☐ Ages 6-11 12 ☐ Ages 12-14 13 ☐ Ages 15-17 14 ☐ Ages 5-10 15 ☐ Ages 14-17 Other (Specify) 16 ☐ Ages ______ 17 ☐ Ages ______ 18 ☐ Ages ______ n.a. ☐ NA (do not participate in SBP)	MARK ALL THAT APPLY Established Groups 1 ☐ Preschool 2 ☐ Grades K-12 3 ☐ Grades 7-12 4 ☐ Age 3 5 ☐ Ages 3-5 6 ☐ Ages 3-6 7 ☐ Ages 7-10 8 ☐ Ages 11-13 9 ☐ Ages 14 and older Customized Age Groups 10 ☐ Ages 3-5 11 ☐ Ages 6-11 12 ☐ Ages 12-14 13 ☐ Ages 15-17 14 ☐ Ages 5-10 15 ☐ Ages 14-17 Other (Specify) 16 ☐ Ages ______ 17 ☐ Ages ______ 18 ☐ Ages ______ n.a. ☐ NA (do not participate in SBP)

6. For each type of school, indicate whether any of the following practices are used in setting prices for components of reimbursable meals that are also sold a la carte:

MARK ALL THAT APPLY

	ELEMENTARY SCHOOL	MIDDLE SCHOOL	HIGH SCHOOL	OTHER TYPE OF SCHOOL – SPECIFY GRADES: __ to __
a. More healthful foods and beverages are discounted (for example, fruit priced lower than baked goods)	1 ☐	1 ☐	1 ☐	1 ☐
b. Foods and beverages sold as second servings are priced lower for students who select a reimbursable meal (for example, entrées, French fries)	2 ☐	2 ☐	2 ☐	2 ☐
c. Less healthful foods and beverages are offered at "premium" prices (for example, French fries, desserts)	3 ☐	3 ☐	3 ☐	3 ☐
d. None of the above	4 ☐	4 ☐	4 ☐	4 ☐
e. No reimbursable components sold a la carte other than milk	5 ☐	5 ☐	5 ☐	5 ☐

7. Thinking about all a la carte offerings, not just items that are also components of reimbursable meals, indicate whether any of the following practices are used in setting prices:

MARK ALL THAT APPLY

	ELEMENTARY SCHOOL	MIDDLE SCHOOL	HIGH SCHOOL	OTHER TYPE OF SCHOOL – SPECIFY GRADES: __ to __
a. A la carte entrées are always priced the same or higher than a full reimbursable meal (to encourage selection of nutritious reimbursable meal).....	1 ☐	1 ☐	1 ☐	1 ☐
b. A la carte entrées are sometimes priced lower than a full reimbursable meal	2 ☐	2 ☐	2 ☐	2 ☐
c. Combinations of a la carte items that qualify as a reimbursable meal are always priced higher than a reimbursable meal.....	3 ☐	3 ☐	3 ☐	3 ☐
d. Combinations of a la carte items that qualify as a reimbursable meal are sometimes priced higher than a reimbursable meal.....	4 ☐	4 ☐	4 ☐	4 ☐
e. None of the above	5 ☐	5 ☐	5 ☐	5 ☐
f. No a la carte items sold other than milk	6 ☐	6 ☐	6 ☐	6 ☐

MENU PLANNING AND COMPUTER SYSTEMS

8. Does your district use a computerized system for . . .

MARK ALL THAT APPLY

1 ☐ Nutrient analysis of menus?

2 ☐ Point of sale (POS) payment/meal counts?

3 ☐ Processing applications for free/reduced price (F/RP) meals?

4 ☐ Food inventory?

0 ☐ None of the above → ***Go to Q.9***

8a. Which software system do you use?

MARK ONE RESPONSE FOR EACH FUNCTION

	Nutrient Analysis	POS	F/RP Applications	Food Inventory
	MARK ONLY ONE	MARK ONLY ONE	MARK ONLY ONE	MARK ONLY ONE
a. Bon Appetit	1 ☐	1 ☐	1 ☐	1 ☐
b. Café Terminal	2 ☐	2 ☐	2 ☐	2 ☐
c. CookenPro Commercial	3 ☐	3 ☐	3 ☐	3 ☐
d. EatecNetX	4 ☐	4 ☐	4 ☐	4 ☐
e. LunchBox	5 ☐	5 ☐	5 ☐	5 ☐
f. Meal Tracker	6 ☐	6 ☐	6 ☐	6 ☐
g. Meals Plus Menus	7 ☐	7 ☐	7 ☐	7 ☐
h. NUTRIKIDS	8 ☐	8 ☐	8 ☐	8 ☐
i. PCS Revenue Control Systems	9 ☐	9 ☐	9 ☐	9 ☐
j. TrakNOW	10☐	10☐	10☐	10☐
k. NutriMenu 2000	11☐	11☐	11☐	11☐
l. Visual B.O.S.S.	12☐	12☐	12☐	12☐
m. WinFSIM	13☐	13☐	13☐	13☐
n. Custom-developed system	14☐	14☐	14☐	14☐
o. Other *(Specify)* _____	15☐	15☐	15☐	15☐
p. No software for this function	16☐	16☐	16☐	16☐

8b. When you do a nutrient analysis of your menus, is it weighted, simple averages (unweighted), or both? Weighted analysis takes into account how often the item is served.

1 ☐ Weighted

2 ☐ Simple averages (unweighted)

3 ☐ Both

4 ☐ Don't do nutrient analysis → ***Go to Q.9***

8c. Do you complete separate analyses for breakfast and lunch or do you do a combined analysis?

MARK ONLY ONE

1 ☐ Breakfast and lunch separately
2 ☐ Breakfast and lunch combined
3 ☐ Only analyze breakfast
4 ☐ Only analyze lunch

9. What qualifications does your district's menu planner have?

MARK ALL THAT APPLY

1 ☐ Associates degree in consumer science, hotel/restaurant management, culinary arts, etc.
2 ☐ Bachelor's degree in consumer science, hotel/restaurant management, culinary arts, etc.
3 ☐ Licensed nutritionist
4 ☐ Master's level nutritionist
5 ☐ On-the-job training
6 ☐ Registered Dietitian
7 ☐ School Nutrition Specialist (SNA certified)
8 ☐ State food service certificate
9 ☐ ☐Other *(Specify)*

_____

0 ☐ None of the above

10. Are all menus planned at the district level?

1 ☐ Yes → ***Go to Q.11***
0 ☐ No

10a. Which types of schools plan their own menus?

MARK ALL THAT APPLY

1 ☐ Elementary schools
2 ☐ Middle schools
3 ☐ High schools
4 ☐ Other *(Specify)*

_____

11. Since school year 2004-2005, have you modified recipes to adjust calorie or nutrient content?

1 ☐ Yes

0 ☐ No → ***Go to Q.12***

11a. Which types of recipes did you target in these modifications?

MARK ALL THAT APPLY

1 ☐ Sandwiches

2 ☐ Prepared entrée items

3 ☐ Desserts

4 ☐ Sauces and gravies

5 ☐ Prepared salads

6 ☐ Vegetable side dishes

7 ☐ Other *(Specify)*

_____

11b. Which of the following did you target in these modifications?

MARK ONE PER ROW

	Yes	No
a. Calories	1 ☐	0 ☐
b. Protein	1 ☐	0 ☐
c. Vitamin A	1 ☐	0 ☐
d. Vitamin C	1 ☐	0 ☐
e. Calcium	1 ☐	0 ☐
f. Iron	1 ☐	0 ☐
g. Fat	1 ☐	0 ☐
h. Saturated fat	1 ☐	0 ☐
i. Cholesterol	1 ☐	0 ☐
j. Sodium	1 ☐	0 ☐
k. Sugar	1 ☐	0 ☐
l. Trans fat	1 ☐	0 ☐
m. Fiber	1 ☐	0 ☐
n. Whole grains	1 ☐	0 ☐
o. Portion or serving size	1 ☐	0 ☐
p. Other *(Specify)* _____	1 ☐	0 ☐
q. Other *(Specify)* _____	1 ☐	0 ☐
r. Other *(Specify)* _____	1 ☐	0 ☐

12. Since school year 2004-2005, have you used any of the following USDA resources or guidance materials in planning menus, developing or modifying recipes, or developing purchasing specifications?

MARK ALL THAT APPLY

1 ☐ Changing the Scene: Improving the School Nutrition Environment
2 ☐ Choice Plus: A Reference Guide for Foods and Ingredients
3 ☐ Fact Sheets for Healthier School Meals (for example, *Serve More Whole Grains* or *Trim Trans Fa*t)
4 ☐ First Choice (second edition)
6 ☐ Food Buying Guide for Child Nutrition Programs
7 ☐ Fruits and Vegetables Galore
8 ☐ Healthier US School Challenge Whole Grains Resource
9 ☐ Making it Happen! School Nutrition Success Stories
10 ☐ Menu Planner for Healthy School Meals
11 ☐ Menu Planning Tools – South Dakota Team Nutrition
12 ☐ New School Lunch and Breakfast Recipes/Tool Kit for Healthy School Meals
13 ☐ Nutrient Analysis Protocols: How to Analyze Menus for USDA's School Meals Programs
14 ☐ Offer versus Serve
15 ☐ Recipes for Schools (USDA)
16 ☐ Road to SMI Success: A Guide for School Food Service Directors
17 ☐ SMI Frequently Asked Questions
18 ☐ Team Nutrition Guide to Purchasing Food Service Equipment
19 ☐ Other *(Specify)*

_____

0 ☐ None of the above

FOOD PURCHASING

13. Do any of the schools in your district offer foods from national or regional brand-name or chain restaurants, such as McDonald's, Burger King, Taco Bell, Pizza Hut, Domino's, or Subway?

1 ☐ Yes
0 ☐ No → ***Go to Q.14***

13a. Are these foods offered in reimbursable meals?

1 ☐ Yes
0 ☐ No

13b. Which types of schools offer these items?

MARK ALL THAT APPLY

1 ☐ Elementary Schools
2 ☐ Middle Schools
3 ☐ High Schools
4 ☐ Other *(Specify grades)*
___ to ___

13c. Vendor Name	**13d. Items Offered**
1.	a.
	b.
	c.
2.	a.
	b.
	c.
3.	a.
	b.
	c.
4.	a.
	b.
	c.

14. Is your school district or are any schools in your district engaged in a "pouring rights" contract, that is, a long-term contract with a beverage company that establishes the company as a sole source vendor for beverages in the district or in the school? Count beverages sold by school food service as well as those sold in vending machines or other venues not controlled by school food service.

MARK ONE ANSWER

1 ☐ Yes, district-wide

2 ☐ Yes, some schools

0 ☐ No → ***Go to Q.15***

14a. Does the beverage contract limit the types or brands of beverages that can be sold in school food service areas?

1 ☐ Yes

0 ☐ No

14b. Where does the income from the contract go?

MARK ALL THAT APPLY

1 ☐ School food service account

2 ☐ Individual school funds

3 ☐ Athletic department

4 ☐ District fund

5 ☐ Other *(Specify)*

_____

d ☐ Don't know

15. Other than the USDA restriction on selling soft drinks during meals, has your school district, or any school in your district, imposed a ban or restriction on the **types** of soda, soft drinks, or sweetened fruit beverages (less than 100% juice) that may be sold to students in schools or on school grounds (including vending machines) since school year 2006-2007?

MARK ONE ANSWER

1 ☐ Yes, a district ban/restriction

2 ☐ Yes, school-level bans/restrictions

3 ☐ Had a ban/restriction before the 2006-2007 school year

0 ☐ No district or school bans/restrictions

na ☐ Never offered soda, soft drinks or sweetened fruit beverages → ***Go to Q.15b***

15a. Other than USDA restrictions, has your school district, or any school in your district, set restrictions on the **time** of day when students may purchase soda, soft drinks, or sweetened fruit beverages (less than 100% juice) in schools or on school grounds (including vending machines) since school year 2006-2007?

MARK ONE ANSWER

1 ☐ Yes, a district-wide limit on time of day

2 ☐ Yes, school-level limits on time of day

3 ☐ Had a ban/restriction before the 2006-2007 school year

0 ☐ No district or school limits on time of day

15b. Other than USDA restrictions, has your school district, or any school in your district, restricted the **types** of food or snack items sold to students in schools or on school grounds (including school stores and vending machines) since school year 2006-2007?

MARK ONE ANSWER

1 ☐ Yes, a district-wide restriction

2 ☐ Yes, school-level restrictions

3 ☐ Had a ban/restriction before the 2006-2007 school year

0 ☐ No district or school restrictions

na ☐ Never offered snacks or other foods outside of the school meal programs

16. Does your district purchase foods through the U.S. Department of Defense "DoD Fresh" program?

1 ☐ Yes

0 ☐ No

17. Does your district purchase foods through the "State Farm to School" program?

1 ☐ Yes

0 ☐ No

18. Does your district use food purchasing specifications that include specific per-serving requirements for any of the following?

	MARK ONE PER ROW	
	Yes	**No**
a. Calories	1 ☐	0 ☐
b. Total fat	1 ☐	0 ☐
c. Saturated fat	1 ☐	0 ☐
d. Trans fat	1 ☐	0 ☐
e. Sodium	1 ☐	0 ☐
f. Total or added sugar	1 ☐	0 ☐
g. Fiber	1 ☐	0 ☐
h. Whole grains	1 ☐	0 ☐
i. Other *(Specify)* _____	1 ☐	0 ☐
j. Other *(Specify)* _____	1 ☐	0 ☐

19. Does your district require child nutrition (CN) or other nutrient labels on some or all purchased foods?

1 ☐ Yes

0 ☐ No

FOOD SAFETY AND SANITATION

20. Do all the schools in your district have a Food Safety Plan based on Hazard Analysis and Critical Control Point (HACCP) principles?

1 ☐ Yes
0 ☐ No → ***Go to Q.22***

21. Which of the following components does the Food Safety Plan contain?

MARK ALL THAT APPLY

1 ☐ Written standard operating procedures
2 ☐ Documentation of hazards or HACCP category for menu items served
3 ☐ Monitoring of food safety procedures
4 ☐ Procedures for assessing mercury levels in cooked foods
5 ☐ Procedures for correcting problems
6 ☐ Recordkeeping
7 ☐ Periodic review and revision of the Food Safety Plan
8 ☐ Other *(Specify)*

_____

0 ☐ None of the above

22. Do you require food service personnel to have food safety certification?

1 ☐ Yes
0 ☐ No → ***Go to Q.23***

22a. Which personnel do you require to have food safety certification?

MARK ALL THAT APPLY

1 ☐ Managers
2 ☐ Assistant Managers
3 ☐ Cooks
4 ☐ Other *(Specify)*

_____

23. Do you have policies and procedures to accommodate students with food allergies?

1 ☐ Yes
0 ☐ No → ***Go to Q.24***

23a. What types of food service procedures do you use to protect students with food allergies?

MARK ALL THAT APPLY

1 ☐ Separate tables

2 ☐ Special sanitation procedures in the kitchen and/or dining area

3 ☐ Procedures to identify students in the serving line

4 ☐ Special training for food service staff

5 ☐ Other *(Specify)*

_____

24. Considering all of your experience with food safety and sanitation in your school district, which of the following are the most persistent problems or challenges?

MARK ALL THAT APPLY

1 ☐ Food storage problems, including no date marking on foods (i.e. refrigerated or ready-to-eat foods)

2 ☐ Improper storage or holding times and/or temperatures for foods (hot, cold or both)

3 ☐ Pests

4 ☐ Cleanliness of food preparation equipment and areas, especially lack of proper cleaning and sanitizing of food contact surfaces

5 ☐ Food handling problems, including lack of separation between raw and ready-to-eat foods (during preparation, storage or both)

6 ☐ Inconsistent, improper, or lack of use of gloves and/or hair restraints; bare hand contact with ready-to-eat foods

7 ☐ Poor personal cleanliness, including inadequate hand washing

8 ☐ Other *(Specify)*

_____

NUTRITION PROMOTION/WELLNESS

25. Does your school district have a local wellness policy?

1 ☐ Yes
0 ☐ No → ***Go to Q. 31***

26. Do you or anyone on your staff participate on a wellness committee at the district level?

1 ☐ Yes
0 ☐ No

27. Does your district have a designated wellness coordinator?

1 ☐ Yes
0 ☐ No → ***Go to Q.28***

27a. Does this person have another job in the district?

1 ☐ Yes → ***Go to Q.27c***
0 ☐ No

27b. Is the wellness coordinator a paid or volunteer position?

1 ☐ Paid → ***Go to Q.27d***
2 ☐ Volunteer → ***Go to Q.27d***

27c. What is this person's title?

TITLE:_____

27d. How many hours per week does this person spend on wellness-related activities?

HOURS PER WEEK

28. Following is a list of potential wellness policy components. For each, please indicate whether the component is addressed in your district wellness policy and, if so, the extent to which the wellness policy requirements have been implemented.

	MARK ONE RESPONSE FOR EACH			
	ADDRESSED IN POLICY AND FULLY IMPLEMENTED	ADDRESSED IN POLICY AND PARTIALLY IMPLEMENTED	STILL BEING PLANNED	NOT ADDRESSED IN POLICY
a. Nutrition education	1 ☐	2 ☐	3 ☐	4 ☐
b. Physical education	1 ☐	2 ☐	3 ☐	4 ☐
c. Daily physical activity	1 ☐	2 ☐	3 ☐	4 ☐
d. Use of food or food coupons as student rewards	1 ☐	2 ☐	3 ☐	4 ☐
e Access to competitive foods during school hours	1 ☐	2 ☐	3 ☐	4 ☐
f. Minimum amount of time for students to eat lunch	1 ☐	2 ☐	3 ☐	4 ☐
g. Staff wellness program	1 ☐	2 ☐	3 ☐	4 ☐
h. Parent involvement	1 ☐	2 ☐	3 ☐	4 ☐
i. Community involvement	1 ☐	2 ☐	3 ☐	4 ☐
j. Plan for measuring implementation	1 ☐	2 ☐	3 ☐	4 ☐
k. Plan for measuring impact	1 ☐	2 ☐	3 ☐	4 ☐

29. Does your district wellness policy include nutrition standards for foods and beverages offered in school meals that exceed current federal requirements? If so, to what extent have the standards been implemented?

MARK ONE ONLY

1 ☐ Have standards that exceed federal requirements and they are fully implemented
2 ☐ Have standards that exceed federal requirements and they are partially implemented
3 ☐ Will have standards that exceed federal requirements, but they are still being planned
4 ☐ Do not have standards that exceed federal requirements

29a. Does your district wellness policy include nutrition standards for foods and beverages offered in afterschool snacks that exceed current federal requirements? If so, to what extent have the standards been implemented?

MARK ONE ONLY

1 ☐ Have standards that exceed federal requirements and they are fully implemented
2 ☐ Have standards that exceed federal requirements and they are partially implemented
3 ☐ Will have standards that exceed federal requirements, but they are still being planned
4 ☐ Do not have standards that exceed federal requirements
0 ☐ Do not offer reimbursable afterschool snacks

29b. Does your district wellness policy include nutrition standards for foods and beverages offered in other school settings? If so, to what extent have the standards been implemented?

SCHOOL SETTING	MARK ONE RESPONSE FOR EACH				
	HAVE STANDARDS AND THEY ARE FULLY IMPLEMENTED	**HAVE STANDARDS AND THEY ARE PARTIALLY IMPLEMENTED**	**STANDARDS STILL BEING PLANNED**	**NO STANDARDS**	**NOT AVAILABLE/ ALLOWED IN DISTRICT**
a. A la carte offerings in cafeteria or other food service area.....	1 ☐	2 ☐	3 ☐	4 ☐	0 ☐
b. Foods and beverages served at classroom or school celebrations	1 ☐	2 ☐	3 ☐	4 ☐	0 ☐
c. Foods and beverages served at staff or parent meetings.....	1 ☐	2 ☐	3 ☐	4 ☐	0 ☐
d. Foods and beverages served as part of fundraising activities	1 ☐	2 ☐	3 ☐	4 ☐	0 ☐
e. Foods and beverages sold in vending machines, school stores, or other non-food service venues	1 ☐	2 ☐	3 ☐	4 ☐	0 ☐

IF Q29=4 AND Q29a=4 or 0 AND Q29b=4 or 0 for all items, GO TO Q31

30. Are any of the nutrition standards included in your district wellness policy based on the standards developed by other groups, such as the Institute of Medicine or the Alliance for a Healthier Generation?

1 ☐ Yes
0 ☐ No → ***Go to Q.31***
d ☐ Don't know → ***Go to Q.31***

30a. Which standards did you use or adapt?

1 ☐ Institute of Medicine
2 ☐ Alliance for a Healthier Generation
3 ☐ National Alliance for Nutrition and Physical Activity
4 ☐ HealthierUS School Challenge
5 ☐ State-developed standards
6 ☐ Other (*Specify*)

_____

FOOD SERVICE MANAGEMENT COMPANIES

31. Does your school district currently use a food service management company to perform any food service functions?

1 ☐ Yes

0 ☐ No → ***Go to Q.33***

32. Is menu planning performed by the school district, by the food service management company, or shared by both?

1 ☐ School district

2 ☐ Food service management company

3 ☐ Shared by both

PRICING

33. Has your school district changed prices for a la carte foods since school year 2004-2005?

MARK ALL THAT APPLY

1 ☐ Yes, at elementary schools → ***Ask Q.34***

2 ☐ Yes, at middle schools → ***Ask Q.35***

3 ☐ Yes, at high schools → ***Ask Q.36***

4 ☐ Yes, at another type of school *(Specify grades)* → ***Ask Q.37***

___ to ___

0 ☐ No change → ***Go to Q.38***

34. How did the prices for a la carte foods change in elementary schools?

MARK ONE ANSWER FOR EACH FOOD TYPE

	INCREASED	DECREASED	NOT CHANGED
a. Milk	1 ☐	2 ☐	3 ☐
b. Other items also on reimbursable menu	1 ☐	2 ☐	3 ☐
c. Other (a la carte-only) items	1 ☐	2 ☐	3 ☐

35. How did the prices for a la carte foods change in middle schools?

MARK ONE ANSWER FOR EACH FOOD TYPE

	INCREASED	DECREASED	NOT CHANGED
a. Milk	1 ☐	2 ☐	3 ☐
b. Other items also on reimbursable menu	1 ☐	2 ☐	3 ☐
c. Other (a la carte-only) items	1 ☐	2 ☐	3 ☐

36. How did the prices for a la carte foods change in high schools?

MARK ONE ANSWER FOR EACH FOOD TYPE

	INCREASED	DECREASED	NOT CHANGED
a. Milk	1 ☐	2 ☐	3 ☐
b. Other items also on reimbursable menu	1 ☐	2 ☐	3 ☐
c. Other (a la carte-only) items	1 ☐	2 ☐	3 ☐

37. How did the prices for a la carte foods change at the OTHER SPECIFY FROM Q33 school level?

MARK ONE ANSWER FOR EACH FOOD TYPE

	INCREASED	DECREASED	NOT CHANGED
a. Milk	1 ☐	2 ☐	3 ☐
b. Other items also on reimbursable menu	1 ☐	2 ☐	3 ☐
c. Other (a la carte-only) items	1 ☐	2 ☐	3 ☐

38. Has your school district changed prices for reduced-price or full-price lunches or breakfasts since school year 2004-2005?

MARK ALL THAT APPLY

1 ☐ Yes, at elementary schools → ***Ask Q.39***

2 ☐ Yes, at middle schools → ***Ask Q.40***

3 ☐ Yes, at high schools → ***Ask Q.41***

4 ☐ Yes, at another type of school *(Specify grades)* → ***Ask Q.42***

___ to ___

0 ☐ No change → ***Go to Q.43***

39. Please indicate how meal prices changed in elementary schools:

	INCREASED	DECREASED	NOT CHANGED	NO BREAKFAST
a. Reduced-price lunch	1 ☐	2 ☐	3 ☐	
b. Full-price lunch	1 ☐	2 ☐	3 ☐	
c. Reduced-price breakfast	1 ☐	2 ☐	3 ☐	0 ☐
d. Full-price breakfast	1 ☐	2 ☐	3 ☐	0 ☐

40. Please indicate how meal prices changed in middle schools:

	INCREASED	DECREASED	NOT CHANGED	NO BREAKFAST
a. Reduced-price lunch	1 ☐	2 ☐	3 ☐	
b. Full-price lunch	1 ☐	2 ☐	3 ☐	
c. Reduced-price breakfast	1 ☐	2 ☐	3 ☐	0 ☐
d. Full-price breakfast	1 ☐	2 ☐	3 ☐	0 ☐

41. Please indicate how meal prices changed in high schools?

	INCREASED	DECREASED	NOT CHANGED	NO BREAKFAST
a. Reduced-price lunch	1 ☐	2 ☐	3 ☐	
b. Full-price lunch	1 ☐	2 ☐	3 ☐	
c. Reduced-price breakfast	1 ☐	2 ☐	3 ☐	0 ☐
d. Full-price breakfast	1 ☐	2 ☐	3 ☐	0 ☐

42. Please how meal prices changed at the OTHER SPECIFY FROM Q38 school level.

	INCREASED	DECREASED	NOT CHANGED	NO BREAKFAST
a. Reduced-price lunch	1 ☐	2 ☐	3 ☐	
b. Full-price lunch	1 ☐	2 ☐	3 ☐	
c. Reduced-price breakfast	1 ☐	2 ☐	3 ☐	0 ☐
d. Full-price breakfast	1 ☐	2 ☐	3 ☐	0 ☐

SECTION II: SFA DIRECTOR BACKGROUND AND EXPERIENCE

43. How long have you been a school food service director?

☐☐ YEARS AND/OR ☐☐ MONTHS

44. What is the highest grade or year of schooling you completed?

MARK ALL THAT APPLY

1 ☐ Less than high school
2 ☐ High school
3 ☐ Some college, no degree
4 ☐ Associates degree
5 ☐ Bachelor's degree
6 ☐ Graduate degree

44a. Which of the following credentials do you hold?

MARK ALL THAT APPLY

1 ☐ Associates degree in consumer science, hotel/restaurant management, baking/culinary arts, etc.
2 ☐ Bachelor's degree in consumer science, hotel/restaurant management, culinary arts, etc.
3 ☐ Licensed nutritionist
4 ☐ Master's level nutritionist
5 ☐ On-the-job training
6 ☐ Registered Dietitian
7 ☐ School Nutrition Specialist (SNA certified)
8 ☐ State food service certificate
9 ☐ Other *(Specify)*

_____

0 ☐ None of the above

44b. How many hours do you spend each week as Director of the School Food Authority?

☐☐ HOURS/WEEK

44c. What are your other district- or school-level responsibilities?

MARK ALL THAT APPLY

1 ☐ Full-time school food service director

2 ☐ Part-time school food service director

3 ☐ Business manager (district)

4 ☐ Transportation coordinator (district)

5 ☐ Other *(Specify)*

_____

6 ☐ Other *(Specify)*

_____

0 ☐ No other responsibilities

Thank you very much for taking the time to complete this survey. Your assistance is greatly appreciated.

MENU SURVEY INSTRUMENTS

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OMB Clearance Number: 0584-0527
Expiration Date: 09/30/2012

DAILY MEAL COUNTS FORM

School Name:_____ **Date:**_____

Instructions:

1. In the boxes for **Reimbursable Lunches** and **Reimbursable Breakfasts**, please record the **number of USDA free, reduced-price,** and **full-price *reimbursable meals* served** in your school each day of the target week. Do ***not*** include meals for which you do not claim reimbursement, for example, second lunches sold to students on an a la carte basis.

2. Check if the number of reimbursable meals was much higher or lower than usual. If so, describe the reasons for this difference in the space provided.

3. At the bottom of the page, please record the total value of your a la carte sales for each day of the target week.

Number of Reimbursable Lunches Served					
Day of Week	**USDA Free**	**USDA Reduced-Price**	**Full-Price**	***FOR OFFICE USE ONLY***	**Please check if the number of reimbursable lunches served this day was much higher or lower than usual.**
Monday					☐ → Reason:_____
Tuesday					☐ → Reason:_____
Wednesday					☐ → Reason:_____
Thursday					☐ → Reason:_____
Friday					☐ → Reason:_____

Number of Reimbursable Breakfasts Served					
Day of Week	**USDA Free**	**USDA Reduced-Price**	**Full-Price**	***FOR OFFICE USE ONLY***	**Please check if the number of reimbursable breakfasts served this day was much higher or lower than usual.**
Monday					☐ → Reason:_____
Tuesday					☐ → Reason:_____
Wednesday					☐ → Reason:_____
Thursday					☐ → Reason:_____
Friday					☐ → Reason:_____

Total Daily A La Carte Sales	
Monday	$_____
Tuesday	$_____
Wednesday	$_____
Thursday	$_____
Friday	$_____

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OMB Clearance Number: 0584-0527
Expiration Date: 09/30/2012

SCHOOL NUTRITION DIETARY ASSESSMENT STUDY

Reimbursable Foods Form: Lunch

NOTE: For instructions on completing this form, please refer to Instructions for Menu Survey.

School Name:_____ **Date:**_____ Day: 1☐ Mon 2☐ Tue 3☐ Wed 4☐ Thu 5☐ Fri

A. Food Item	B. Portion Size *(Incl. Units)*	C. Number of Reim-bursable Portions Served	D. Total Number of Portions Served	D. Any Sold a La Carte or to Adults?	D. Number of a La Carte/ Adult Portions Served	E. Manufacturer/Brand Name and Product Code *(If Applicable)*	F. Food Description	G. USDA Commodity?	H. Recipe?
MILK (**Note:** If more than one size is available, list separately in "Other Menu Items" section.)									
White, whole	fl oz.			☐					
White, 2%	fl oz.			☐					
White, 1%	fl oz.			☐					
White, fat-free/skim	fl oz.			☐					
Chocolate	fl oz.			☐			Specify fat content:		
Other type/flavor *(Specify)*_____	fl oz.			☐			Specify fat content:		
Other type/flavor *(Specify)*_____	fl oz.			☐			Specify fat content:		
FRUIT (**Note:** Prelisted entries should be used only for fruit that is served as purchased. If anything is added before serving, list as separate item and complete RECIPE FORM.)									
Apple, fresh				☐				☐	
Applesauce, cannned	cup			☐			☐ Sweetened ☐ Unsweetened	☐	
Banana, fresh				☐					
Fruit cocktail, canned	cup			☐			☐ Heavy syrup ☐ Light syrup ☐ Juice ☐ Water	☐	
Orange, fresh				☐				☐	
Peaches, canned	cup			☐			☐ Heavy syrup ☐ Light syrup ☐ Juice ☐ Water	☐	
Pears, fresh				☐				☐	
Pears, canned	cup			☐			☐ Heavy syrup ☐ Light syrup ☐ Juice ☐ Water	☐	
Pineapple, canned	cup			☐			☐ Heavy syrup ☐ Light syrup ☐ Juice ☐ Water	☐	
				☐				☐	☐

A. Food Item	B. Portion Size *(Incl. Units)*	C. Number of Reim-bursable Portions Served	D. Total Number of Portions Served	D. Any Sold a La Carte or to Adults?	D. Number of a La Carte/ Adult Portions Served	E. Manufacturer/Brand Name and Product Code *(If Applicable)*	F. Food Description	G. USDA Commodity?	H. Recipe?
JUICES(**Note:** Prelisted entries should be used only for full-strength (100%) fruit and vegetable juice. Fruit drinks are included in 'Desserts, Drinks, and Snacks' section.)									
Orange juice	fl oz.			☐			☐ Vitamin C added ☐ Calcium added	☐	
Apple juice	fl oz.			☐			☐ Vitamin C added ☐ Calcium added	☐	
Frozen juice cup/bar	fl oz.			☐			☐ Vitamin C added ☐ Calcium added		
	fl oz.			☐			☐ Vitamin C added ☐ Calcium added	☐	
VEGETABLES									
Beans, green	cup			☐			☐ Fresh ☐ Frozen ☐ Canned Fat added: ☐ Yes ☐ No If yes, specify type:	☐	
Broccoli	cup			☐			☐ Fresh ☐ Frozen ☐ Canned Fat added: ☐ Yes ☐ No If yes, specify type:		
Carrot sticks				☐			**If offered, list dip as separate item(s) or complete RECIPE FORM**		☐
Corn, kernels	cup			☐			☐ Fresh ☐ Frozen ☐ Canned Fat added: ☐ Yes ☐ No If yes, specify type:	☐	
French fries	oz.			☐			☐ Oven-baked ☐ Deep-fried	☐	
Peas, green	cup			☐			☐ Fresh ☐ Frozen ☐ Canned Fat added: ☐ Yes ☐ No If yes, specify type:	☐	
Potatoes, whipped or mashed	cup			☐			☐ From fresh **If prepared with fat and/or milk, complete RECIPE FORM**	☐	☐
Salad bar (non-entrée or small portion)	Self-serve			☐		**Please list all ingredients on SELF-SERVE/MADE-TO-ORDER BAR FORM**			
Salad, tossed	cup			☐			**List dressing as separate item(s) or complete RECIPE FORM**		☐
Tater tots or shapes	oz.			☐			☐ Oven-baked ☐ Deep-fried	☐	☐
				☐				☐	☐
				☐				☐	☐

A. Food Item	B. Portion Size *(Incl. Units)*	C. Number of Reim-bursable Portions Served	D. Total Number of Portions Served	D. Any Sold a La Carte or to Adults?	D. Number of a La Carte/ Adult Portions Served	E. Manufacturer/Brand Name and Product Code *(If Applicable)*	F. Food Description	G. USDA Commodity?	H. Recipe?
ENTREES OTHER THAN SANDWICHES AND SELF-SERVE BARS (**Note:** If entrée item is commercially prepared, complete Column E. For items prepared from scratch, fill out a RECIPE FORM.)									
Burrito	oz.			☐			Specify fillings:		☐
Chef's salad	1 salad			☐					☐
Chicken, piece(s) *(Specify part)*_____ *(Specify part)*_____				☐			Breaded: ☐ Yes ☐ No With skin: ☐ Yes ☐ No ☐ Oven-baked ☐ Deep-fried	☐	☐
Chicken nuggets	ea.			☐			☐ Oven-baked ☐ Deep-fried **Weight of each nugget: oz.**	☐	
Chicken patty (not sandwich)	oz.			☐			Breaded: ☐ Yes ☐ No ☐ Oven-baked ☐ Deep-fried	☐	
Corndog	oz.			☐			☐ All beef ☐ Beef & Pork ☐ Turkey or Chicken		
Ham, slice	oz.			☐			☐ Pork ☐ Turkey	☐	
Pizza, cheese	oz.			☐			☐ Extra cheese ☐ Stuffed crust		☐
Pizza, pepperoni	oz.			☐			☐ Extra cheese ☐ Stuffed crust		☐
Pizza, sausage	oz.			☐			☐ Extra cheese ☐ Stuffed crust		☐
Spaghetti with meat sauce	cup			☐					☐
Taco				☐			☐ Hard shell ☐ Soft tortilla Specify fillings:		☐
Turkey, slice	oz.			☐					
Yogurt (as meat alternate)	oz.			☐			Specify flavors: ☐ Regular ☐ Low-fat ☐ Fat-free ☐ Low-cal sweetener		
				☐				☐	☐

A. Food Item	B. Portion Size *(Incl. Units)*	C. Number of Reim-bursable Portions Served	D. Total Number of Portions Served	D. Any Sold a La Carte or to Adults?	D. Number of a La Carte/ Adult Portions Served	E. Manufacturer/Brand Name and Product Code *(If Applicable)*	F. Food Description	G. USDA Commodity?	H. Recipe?
SANDWICHES: (**Note:** If a sandwich is commercially prepared, fill out manufacturer/brand and product code (Column E). For items prepared from scratch, complete a RECIPE FORM or record information for each sandwich below, including type and weight of bread; type and amount of filling; type and amount of any additions. See Instruction Manual for examples.)									
Sandwich/deli bar	Self-serve			☐		***Please list all ingredients on SELF-SERVE/MADE-TO-ORDER BAR FORM***			
Cheese, grilled	1 sandwich			☐					☐
Cheeseburger	1 sandwich			☐					☐
Chicken filet or breast (not breaded)	1 sandwich			☐					☐
Chicken patty (breaded)	1 sandwich			☐					☐
Ham and cheese	1 sandwich			☐					☐
Hamburger	1 sandwich			☐					☐
Hot dog	1 sandwich			☐					☐
Italian sub	1 sandwich			☐					☐
Peanut butter & jelly	1 sandwich			☐					☐
Rib, barbeque	1 sandwich			☐					☐
Turkey	1 sandwich			☐					☐
Tuna salad	1 sandwich			☐					☐
	1 sandwich			☐					☐
	1 sandwich			☐					☐
	1 sandwich			☐					☐
	1 sandwich			☐					☐
	1 sandwich			☐					☐
	1 sandwich			☐					☐

A. Food Item	B. Portion Size *(Incl. Units)*	C. Number of Reim-bursable Portions Served	D. Total Number of Portions Served	D. Any Sold a La Carte or to Adults?	D. Number of a La Carte/ Adult Portions Served	E. Manufacturer/Brand Name and Product Code *(If Applicable)*	F. Food Description	G. USDA Commodity?	H. Recipe?
SELF-SERVE ENTRÉE BARS									
Entrée salad bar (or large portion)	Self-serve			☐		**Please list all ingredients on SELF-SERVE/MADE-TO-ORDER BAR FORM**			
Potato bar	Self-serve			☐		**Please list all ingredients on SELF-SERVE/MADE-TO-ORDER BAR FORM**			
Nacho/taco bar	Self-serve			☐		**Please list all ingredients on SELF-SERVE/MADE-TO-ORDER BAR FORM**			
	Self-serve			☐		**Please list all ingredients on SELF-SERVE/MADE-TO-ORDER BAR FORM**			
	Self-serve			☐		**Please list all ingredients on SELF-SERVE/MADE-TO-ORDER BAR FORM**			
BREADS AND GRAINS OFFERED SEPARATELY									
Biscuit	oz.			☐			☐ Whole grain		☐
Bread, plain	oz.			☐			Type: ☐ Whole grain		
Bread, buttered	oz.			☐			Type: ☐ Whole grain ☐ Margarine ☐ Butter		☐
Breadstick	oz.			☐			Type: ☐ Whole grain		☐
Cornbread	oz.			☐					☐
Crackers	ea.			☐			Type: ☐ Whole grain		
Rice	cup			☐			☐ White ☐ Brown	☐	☐
Roll	oz.			☐			Type: ☐ Whole grain		☐
Pasta	cup			☐			Type: ☐ Whole grain	☐	☐
				☐				☐	☐
				☐				☐	☐
				☐				☐	☐
				☐				☐	☐

A. Food Item	B. Portion Size *(Incl. Units)*	C. Number of Reim-bursable Portions Served	D. Total Number of Portions Served	D. Any Sold a La Carte or to Adults?	D. Number of a La Carte/ Adult Portions Served	E. Manufacturer/Brand Name and Product Code *(If Applicable)*	F. Food Description	G. USDA Commodity?	H. Recipe?
DESSERTS, DRINKS, AND SNACKS OFFERED AS PART OF A REIMBURSABLE MEAL									
Brownie				☐					☐
Cake				☐			Specify type:		☐
Cookie	oz.			☐			Specify type:		☐
Fruit drink	fl oz.			☐			Specify type: Specify % juice content:		
Gelatin, plain	cup			☐					
Gelatin, with fruit	cup			☐					☐
Potato chips	oz.			☐			Specify type:		
Yogurt	oz.			☐			Specify flavors: ☐ Regular ☐ Low-fat ☐ Fat-free ☐ Low-cal sweetener		
				☐					☐
				☐					☐
				☐					☐
				☐					☐
SALAD DRESSINGS									
French dressing				☐			☐ Reg ☐ Light ☐ Red calorie ☐ Fat-free		☐
Italian dressing				☐			☐ Reg ☐ Light ☐ Red calorie ☐ Fat-free		☐
Ranch dressing				☐			☐ Reg ☐ Light ☐ Red calorie ☐ Fat-free		☐
				☐			☐ Reg ☐ Light ☐ Red calorie ☐ Fat-free		☐
				☐			☐ Reg ☐ Light ☐ Red calorie ☐ Fat-free		☐
				☐			☐ Reg ☐ Light ☐ Red calorie ☐ Fat-free		☐
				☐			☐ Reg ☐ Light ☐ Red calorie ☐ Fat-free		☐
				☐			☐ Reg ☐ Light ☐ Red calorie ☐ Fat-free		☐
				☐			☐ Reg ☐ Light ☐ Red calorie ☐ Fat-free		☐
				☐			☐ Reg ☐ Light ☐ Red calorie ☐ Fat-free		☐

A. Food Item	B. Portion Size *(Incl. Units)*	C. Number of Reim-bursable Portions Served	D. Total Number of Portions Served	D. Any Sold a La Carte or to Adults?	D. Number of a La Carte/ Adult Portions Served	E. Manufacturer/Brand Name and Product Code *(If Applicable)*	F. Food Description	G. USDA Commodity?	H. Recipe?
OTHER CONDIMENTS									
Self-serve condiments or fixins' bar	Self-serve			☐		**Please list all ingredients on SELF-SERVE/MADE-TO-ORDER BAR FORM**			
Barbeque sauce				☐					☐
Butter				☐					
Cream cheese				☐			☐ Reg ☐ Red fat ☐ Light ☐ Fat-free		
Gravy				☐			☐ Reg ☐ Red fat ☐ Low-fat ☐ Fat-free		☐
Honey				☐					
Ketchup				☐					
Margarine				☐					
Mayonnaise				☐			☐ Reg ☐ Light ☐ Low-fat ☐ Fat-free		
Mustard				☐					
Tartar sauce				☐			☐ Reg ☐ Red fat ☐ Low-fat ☐ Fat-free		☐
Peppers, jalapeno				☐					
Pickles, relish				☐					
Pickles, slices				☐					
Ranch dip				☐			☐ Reg ☐ Light ☐ Red calorie ☐ Fat-free		☐
Salsa				☐				☐	☐
Sour cream				☐			☐ Reg ☐ Red fat ☐ Light ☐ Fat-free		
				☐				☐	☐
				☐				☐	☐
				☐				☐	☐
				☐				☐	☐
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				☐				☐	☐
				☐				☐	☐
				☐				☐	☐

A. Food Item	B. Portion Size *(Incl. Units)*	C. Number of Reim-bursable Portions Served	D. Total Number of Portions Served	D. Any Sold a La Carte or to Adults?	D. Number of a La Carte/ Adult Portions Served	E. Manufacturer/Brand Name and Product Code *(If Applicable)*	F. Food Description	G. USDA Commodity?	H. Recipe?
OTHER MENU ITEMS									
				☐				☐	☐
				☐				☐	☐
				☐				☐	☐
				☐				☐	☐
				☐				☐	☐
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OMB Clearance Number: 0584-0527
Expiration Date: 09/30/2012

SCHOOL NUTRITION DIETARY ASSESSMENT STUDY

Reimbursable Foods Form: Breakfast

NOTE: For instructions on completing this form, please refer to Instructions for Menu Survey.

School Name:_____ **Date:**_____ Day: 1☐ Mon 2☐ Tue 3☐ Wed 4☐ Thu 5☐ Fri

A. Food Item	B. Portion Size *(Incl. Units)*	C. Number of Reim-bursable Portions Served	D. Total Number of Portions Served	D. Any Sold a La Carte or to Adults?	D. Number of a La Carte/ Adult Portions Served	E. Manufacturer/Brand Name and Product Code *(If Applicable)*	F. Food Description	G. USDA Commodity?	H. Recipe?
MILK (**Note:** If more than one size is available, list separately in "Other Menu Items" section.)									
White, whole	fl oz.			☐					
White, 2%	fl oz.			☐					
White, 1%	fl oz.			☐					
White, fat-free/skim	fl oz.			☐					
Chocolate	fl oz.			☐			Specify fat content:		
Other type/flavor *(Specify)*_____	fl oz.			☐			Specify fat content:		
Other type/flavor *(Specify)*_____	fl oz.			☐			Specify fat content:		
	fl oz.			☐			Specify fat content:		
FRUIT (**Note:** Prelisted entries should be used only for fruit that is served as purchased. If anything is added before serving, list as separate item and complete RECIPE FORM.)									
Apple, fresh				☐				☐	
Banana, fresh				☐					
Grapefruit, fresh									
Grapes, fresh				☐					
Orange, fresh				☐				☐	
Peaches, canned	cup			☐			☐ Heavy syrup ☐ Light syrup ☐ Juice ☐ Water	☐	
				☐				☐	☐
				☐				☐	☐

A. Food Item	B. Portion Size *(Incl. Units)*	C. Number of Reim-bursable Portions Served	D. Total Number of Portions Served	D. Any Sold a La Carte or to Adults?	D. Number of a La Carte/ Adult Portions Served	E. Manufacturer/Brand Name and Product Code *(If Applicable)*	F. Food Description	G. USDA Commodity?	H. Recipe?
JUICES (**Note:** Prelisted entries should be used only for full-strength (100%) fruit and vegetable juice. Fruit drinks are included in 'Desserts, Drinks, and Snacks' section.)									
Orange juice	fl oz.			☐			☐ Vitamin C added ☐ Calcium added	☐	
Apple juice	fl oz.			☐			☐ Vitamin C added ☐ Calcium added	☐	
	fl oz.			☐			☐ Vitamin C added ☐ Calcium added	☐	
	fl oz.			☐			☐ Vitamin C added ☐ Calcium added	☐	
COLD CEREALS									
Apple Jacks	oz.			☐					
Cheerios, plain	oz.			☐					
Cheerios, Honey Nut	oz.			☐					
Cinn Toast Crunch	oz.			☐					
Cocoa Krispies	oz.			☐					
Cocoa Puffs	oz.			☐					
Froot Loops	oz.			☐					
Frosted Flakes	oz.			☐					
Golden Grahams	oz.			☐					
Lucky Charms	oz.			☐					
Rice Krispies	oz.			☐					
Special K	oz.			☐					
Trix	oz.			☐					
Wheaties	oz.			☐					
	oz.			☐				☐	☐
	oz.			☐				☐	☐
HOT CEREALS (**Note:** If prepared with fat and/or milk, complete RECIPE FORM)									
Cream of Wheat	cup			☐			☐ Instant ☐ Quick ☐ Reg		☐
Grits	cup			☐			☐ Instant ☐ Quick ☐ Reg		☐
Oatmeal	cup			☐			☐ Instant ☐ Quick ☐ Reg	☐	☐

A. Food Item	B. Portion Size *(Incl. Units)*	C. Number of Reim-bursable Portions Served	D. Total Number of Portions Served	D. Any Sold a La Carte or to Adults?	D. Number of a La Carte/ Adult Portions Served	E. Manufacturer/Brand Name and Product Code *(If Applicable)*	F. Food Description	G. USDA Commodity?	H. Recipe?
OTHER BREADS AND GRAINS OFFERED SEPARATELY									
Bagel	oz.			☐			Type: ☐ Whole grain		
Biscuit	oz.			☐			☐ Whole grain		☐
Doughnut	oz.			☐			☐ Icing/glaze ☐ No icing/glaze		
English muffin, plain	oz.			☐			Type: ☐ Whole grain		
English muffin, buttered	oz.			☐			Type: ☐ Whole grain ☐ Margarine ☐ Butter		☐
Granola/cereal bar	oz.			☐			Specify type:		
Muffin	oz.			☐			Specify type:		☐
Pancake	oz.			☐					☐
Roll, cinnamon	oz.			☐			☐ Icing ☐ No icing		☐
Toast, plain	oz.			☐			Type: ☐ Whole grain		
Toast, buttered	oz.			☐			Type: ☐ Whole grain ☐ Margarine ☐ Butter		☐
Toaster pastry	oz.			☐					
				☐				☐	☐
MEATS AND MEAT ALTERNATES OFFERED SEPARATELY									
Bacon	sl			☐			☐ Pork ☐ Turkey		
Eggs	cup ea.			☐			☐ Boiled ☐ Fried ☐ Scrambled **If prepared with fat and/or milk, complete RECIPE FORM**	☐	☐
Ham	oz.			☐			☐ Pork ☐ Turkey	☐	
Sausage	oz.			☐			☐ Pork ☐ Turkey ☐ Beef		
Yogurt	oz.			☐			Specify flavors: ☐ Regular ☐ Low-fat ☐ Fat-free ☐ Low-cal sweetener		
				☐				☐	☐
				☐				☐	☐

A. Food Item	B. Portion Size *(Incl. Units)*	C. Number of Reim-bursable Portions Served	D. Total Number of Portions Served	D. Any Sold a La Carte or to Adults?	D. Number of a La Carte/ Adult Portions Served	E. Manufacturer/Brand Name and Product Code *(If Applicable)*	F. Food Description	G. USDA Commodity?	H. Recipe?
COMBINATION BREAD/MEAT ITEMS (**Note:** If item is commercially prepared, complete Column E. For items prepared from scratch, fill out a RECIPE FORM.)									
Breakfast burrito	oz.			☐			Specify fillings:		☐
Cheese sandwich, toasted	1 sandwich			☐					☐
Egg sandwich	oz. 1 sandwich			☐			☐ Cheese ☐ Sausage ☐ Ham ☐ Bacon ☐ Other: _____		☐
Egg sandwich	oz. 1 sandwich			☐			☐ Cheese ☐ Sausage ☐ Ham ☐ Bacon ☐ Other: _____		☐
French toast				☐					☐
French toast sticks	ea.			☐			**Weight of each stick: oz.**		
Pancake on a stick	oz.			☐					
Pizza	oz.			☐			Specify toppings:		☐
				☐				☐	☐
CONDIMENTS									
Self-serve condiments or fixins' bar	Self-serve			☐		**Please list all ingredients on SELF-SERVE/MADE-TO-ORDER BAR FORM**			
Butter				☐					
Cream cheese				☐			☐ Reg ☐ Red fat ☐ Light ☐ Fat-free		
Gravy				☐			☐ Reg ☐ Red fat ☐ Low-fat ☐ Fat-free		☐
Jelly				☐					
Ketchup				☐					
Margarine				☐					
Salsa				☐					☐
Syrup				☐			☐ Reg ☐ Light ☐ Red calorie ☐ Sugar-free	☐	☐
				☐				☐	☐
				☐				☐	☐
				☐				☐	☐

REIMBURSABLE MEALS FORM: BREAKFAST

A.	B.	C.	D.			E.	F.	G.	H.
Food Item	Portion Size *(Incl. Units)*	Number of Reim-bursable Portions Served	Total Number of Portions Served	Any Sold a La Carte or to Adults?	Number of a La Carte/ Adult Portions Served	Manufacturer/Brand Name and Product Code *(If Applicable)*	Food Description	USDA Commodity?	Recipe?
OTHER MENU ITEMS									
				☐				☐	☐
				☐				☐	☐
				☐				☐	☐
				☐				☐	☐
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OMB Clearance Number: 0584-0527
Expiration Date: 09/30/2012

Self-Serve/Made-to-Order Bar Form

School Name:_______________________________ **Name of Bar:**_______________________________

Meal: 1 ☐ Breakfast 2 ☐ Lunch **Day:** 1☐All 2☐Mon 3☐Tue 4☐Wed 5☐Thu 6☐Fri

A. Food Name	B. *Portion Size, If Pre-portioned (Include units)*	C. Manufacturer/ Brand Name and Product Code *(if applicable)*	D. Food Description	E. USDA Commodity?	F. Recipe?
				☐	☐
				☐	☐
				☐	☐
				☐	☐
				☐	☐
				☐	☐
				☐	☐
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OMB Clearance Number: 0584-0527

Expiration Date: 09/30/2012

Recipe Form

School Name:_____ **Recipe/Food Name:**_____

Meal: 1 ☐ Breakfast 2 ☐ Lunch

Day: 1 ☐ Mon 2 ☐ Tue 3 ☐ Wed 4 ☐ Thu 5 ☐ Fri 6 ☐ All

Size of One Serving *(include units)*:_____

Number of Servings Prepared:_____

A. Ingredient Name	B. Amount in Recipe *(Include units)*	C. Manufacturer/ •Brand Name and Product Code *(If applicable)*	D. Ingredient Description	E. USDA Commodity?	F. Recipe?
				☐	☐
				☐	☐
				☐	☐
				☐	☐
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OMB Clearance Number: 0584-0527

Expiration Date: 09/30/2012

SCHOOL NUTRITION DIETARY ASSESSMENT STUDY

A La Carte Foods Checklist

SCHOOL NAME: _____

DATE COMPLETED: |__|__| /|__|__| /|__|__|__|__|
Month Day Year

1. Does your school sell food or beverages on an a la carte basis?
   1 ☐ Yes
   0 ☐ No → Thank you. You are done.

2. When does your school sell food or beverages on an a la carte basis?
   1 ☐ During breakfast only
   2 ☐ During lunch only
   3 ☐ During breakfast and lunch

Please refer to the *Instructions for Menu Survey* for instructions on completing this form. Remember to include this form when you return the Menu Survey Folder with all completed survey materials.

SCHOOL NUTRITION DIETARY ASSESSMENT STUDY
A La Carte Checklist

Food Item	Breakfast	Lunch
A.Milk		
1. Whole white milk	1 ☐	1 ☐
2. Reduced fat (2%) white milk	2 ☐	2 ☐
3. Low-fat (1%) white milk	3 ☐	3 ☐
4. Fat-free/skim white milk	4 ☐	4 ☐
5. Reduced fat (2%) *flavored* milk	5 ☐	5 ☐
6. Low-fat (1%) *flavored* milk	6 ☐	6 ☐
7. Fat-free/skim *flavored* milk	7 ☐	7 ☐
B.Fruit/Juice		
1. Dried fruit (such as raisins or apricots)	8 ☐	8 ☐
2. Canned fruit	9 ☐	9 ☐
3. Fresh fruit	10 ☐	10 ☐
4. Juice (100% fruit or vegetable juice)	11 ☐	11 ☐
C.Vegetables		
1. French fries - baked (including tater tots)	12 ☐	12 ☐
2. French fries - deep-fried (including tater tots)	13 ☐	13 ☐
3. Potatoes (other than french fries/tater tots)	14 ☐	14 ☐
4. Corn	15 ☐	15 ☐
5. Carrots (cooked)	16 ☐	16 ☐
6. Other cooked vegetables *(Specify)*	17 ☐	17 ☐
a. _____	18 ☐	18 ☐
b. _____	19 ☐	19 ☐
c. _____	20 ☐	20 ☐
7. Raw vegetables	21 ☐	21 ☐
8. Tossed salads (side)	22 ☐	22 ☐
9. Prepared salads (such as potato salad, coleslaw, or three bean salad)	23 ☐	23 ☐
10. Vegetable soup	24 ☐	24 ☐
D.Bread/Grains		
1. Regular bread, rolls, bagels, or tortillas	25 ☐	25 ☐
2. Whole grain bread, rolls, bagels, or tortillas	26 ☐	26 ☐
3. Other bread items (such as biscuits, croissants, or hot pretzels)	27 ☐	27 ☐
4. Low-fat muffins	28 ☐	28 ☐
5. Regular muffins	29 ☐	29 ☐
6. Ready-to-eat breakfast cereal	30 ☐	30 ☐
7. Pancakes, waffles, or French toast	31 ☐	31 ☐
E.Meat/Meat Alternates		
1. Breaded chicken/turkey (nuggets, patties, strips, parts)	32 ☐	32 ☐
2. Not breaded chicken/turkey (nuggets, patties, strips, parts)	33 ☐	33 ☐
3. Breaded beef/pork (nuggets, patties, strips)	34 ☐	34 ☐
4. Not breaded beef/pork (nuggets, patties, strips)	35 ☐	35 ☐
5. Sausage or bacon	36 ☐	36 ☐
6. Breaded fish (nuggets, patties, strips/sticks)	37 ☐	37 ☐
7. Not breaded fish (nuggets, patties, strips/sticks, fillets)	38 ☐	38 ☐
8. Eggs	39 ☐	39 ☐

Food Item	Breakfast	Lunch
9. Cheese	40 ☐	40 ☐
10. Chili	41 ☐	41 ☐
F.Entrees		
SANDWICHES		
1. Cheeseburger or hamburger	42 ☐	42 ☐
2. Hot dog or corn dog	43 ☐	43 ☐
3. Peanut butter sandwich (including with jelly)	44 ☐	44 ☐
4. Cheese sandwich	45 ☐	45 ☐
5. Sandwich with breaded meat, poultry or fish	46 ☐	46 ☐
6. Sandwich with cold cuts (salami, bologna, or pepperoni)	47 ☐	47 ☐
7. Sandwich with plain (not breaded) meat, poultry or fish	48 ☐	48 ☐
8. Egg sandwich or breakfast burrito	49 ☐	49 ☐
9. Other sandwiches *(Specify)*	50 ☐	50 ☐
a. _____	51 ☐	51 ☐
b. _____	52 ☐	52 ☐
c. _____	53 ☐	53 ☐
Other Entrees		
10. Pizza without meat	54 ☐	54 ☐
11. Pizza with meat	55 ☐	55 ☐
12. Burritos	56 ☐	56 ☐
13. Other Mexican foods (such as tacos, nachos, or quesadillas)	57 ☐	57 ☐
14. Chinese food	58 ☐	58 ☐
15. Lasagna	59 ☐	59 ☐
16. Spaghetti	60 ☐	60 ☐
17. Macaroni and cheese	61 ☐	61 ☐
18. Entrée salad (such as chef's, cob, or chicken Caesar)	62 ☐	62 ☐
19 Soup with meat or beans (such as chicken, clam chowder, or minestrone)	63 ☐	63 ☐
20. Other entrees *(Specify)*	64 ☐	64 ☐
a. _____	65 ☐	65 ☐
b. _____	66 ☐	66 ☐
G.Beverages Other than Milk or 100% Juice		
1. Diet carbonated soft drink (diet soda/pop)	67 ☐	67 ☐
2. Regular carbonated soft drink (regular soda/pop)	68 ☐	68 ☐
3. Juice drinks and other sweetened drinks (such as cranberry drink, fruit blends, Hi-C, lemonade, punch, iced tea)	69 ☐	69 ☐
4. Energy and sports drinks (such as Gatorade, PowerAde, Red Bull, Vitamin Water)	70 ☐	70 ☐
5. Bottled water (plain, flavored, or sparkling)	71 ☐	71 ☐
6. Hot or cold chocolate drinks (such as Yoo-hoo; NOT chocolate milk)	72 ☐	72 ☐
H.Baked Goods		
1. Low-fat/reduced-fat cakes, cupcakes, or brownies	73 ☐	73 ☐
2. Regular cakes, cupcakes, or brownies	74 ☐	74 ☐
3. Low-fat pies, turnovers, or toaster pastries	75 ☐	75 ☐
4. Regular pies, turnovers, or toaster pasties	76 ☐	76 ☐
5. Doughnuts	77 ☐	77 ☐
6. Low-fat cookies	78 ☐	78 ☐
7. Regular cookies	79 ☐	79 ☐

Food Item	Breakfast	Lunch
I.Frozen/Dairy Dessert		
1. Frozen fruit bars or popsicles	80 ☐	80 ☐
2. Milkshakes, smoothies, or yogurt drinks	81 ☐	81 ☐
3. Low-fat/reduced-fat ice cream, frozen yogurt, or sherbet	82 ☐	82 ☐
4. Regular ice cream, frozen yogurt, or sherbet	83 ☐	83 ☐
5. Pudding	84 ☐	84 ☐
J.Snacks		
1. Low-fat/reduced-fat/baked chips (such as corn, potato, puffed cheese, tortilla, or snack mixes)	85 ☐	85 ☐
2. Regular chips (such as corn, potato, puffed cheese, tortilla, or snack mixes)	86 ☐	86 ☐
3. Pretzels	87 ☐	87 ☐
4. Popcorn	88 ☐	88 ☐
5. Cracker sandwiches with cheese or peanut butter	89 ☐	89 ☐
6. Other types of crackers (including animal crackers)	90 ☐	90 ☐
7. Low-fat/reduced-fat granola bars, cereal bars, or energy bars	91 ☐	91 ☐
8. Regular granola bars, cereal bars, or energy bars	92 ☐	92 ☐
9. Crispy rice bars or treats	93 ☐	93 ☐
10. Yogurt	94 ☐	94 ☐
11. Candy	95 ☐	95 ☐
12. Gum	96 ☐	96 ☐
13. Nuts and/or seeds (such as almonds, peanuts, sunflower seeds, or trail mix)	97 ☐	97 ☐
14. Fruit snacks (such as Fruit Roll-Ups or fruit leather)	98 ☐	98 ☐
15. Meat snacks (such as jerky or pork rinds)	99 ☐	99 ☐
K.Other a La Carte Items *(Specify)*		
Please list any food or beverage that is not listed in sections A-J of this checklist that the cafeteria offered a la carte on the day you complete this form		
_____	100 ☐	100 ☐
_____	101 ☐	101 ☐
_____	102 ☐	102 ☐
_____	103 ☐	103 ☐
_____	104 ☐	104 ☐
_____	105 ☐	105 ☐
_____	106 ☐	106 ☐
_____	107 ☐	107 ☐
_____	108 ☐	108 ☐
_____	109 ☐	109 ☐
_____	110 ☐	110 ☐
_____	111 ☐	111 ☐
_____	112 ☐	112 ☐
_____	113 ☐	113 ☐
_____	114 ☐	114 ☐

SCHOOL NUTRITION DIETARY ASSESSMENT STUDY

Afterschool Snack Form

NOTE: For instructions on completing this form, please refer to Instructions for Completing the Afterschool Snack Form.

School Name:_____Date:_____

A. Food Item	B. Portion Size (Incl. Units)	C. Number of Portions Prepared/ Available	D. Number of Portions Served to Students	E. Number of Reimbursable Snacks Served
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				

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OMB Clearance Number: 0584-0527
Expiration Date: 09/30/2012

School Nutrition Dietary Assessment Study

Food Service Manager Survey

Sponsored by:

U.S. Department of Agriculture
Food and Nutrition Service

Prepared by Mathematica Policy Research, Inc.

INSTRUCTIONS

- When completing the survey please use a black or blue pen, and write only in the spaces provided.
- Please answer all of the questions, except for those that you are instructed to skip based on your answer to a specific question.
- Unless you see the words MARK ALL THAT APPLY after a question, please mark only one answer for each question.
- If you have any questions about the study or about completing this survey, please do not hesitate to contact your technical assistant by phone at 1-888-633-8329 or e-mail: USDASchoolNutritionStudy@mathematica-mpr.com.

The information you provide will be used only for statistical purposes. In accordance with the Confidential Information Protection and Statistical Efficiency Act of 2002, your responses will not be disclosed in identifiable form without your consent.

Participation is completely voluntary. Choosing not to participate will not affect your employment or your district's participation in school meal programs in any way.

We thank you for your cooperation and participation in this very important study.

FOR ASSISTANCE, CALL TOLL FREE: 1-888-633-8329

KITCHEN CHARACTERISTICS

1. Which of the following best describes your kitchen?

   1 ☐ An on-site kitchen where meals are prepared for serving only at this school

   2 ☐ A base kitchen where meals are prepared for serving on-site and for shipment to other schools

   3 ☐ A receiving or satellite kitchen which obtains partially or fully prepared meals from a base or central kitchen

2. Do you receive fully plated meals that are prepared off-site?

   1 ☐ Yes

   0 ☐ No

VENDING MACHINES

3. Are any vending machines located **in your food service area** (that is, the indoor or outdoor areas where reimbursable meals are served/eaten)?

   1 ☐ Yes

   0 ☐ No → ***Go to Q.5***

3a. Who receives revenue or profit from these machines?

MARK ALL THAT APPLY

   1 ☐ School

   2 ☐ School food service **only**

   3 ☐ School food service and other school/district departments

   4 ☐ Student organization (student council/clubs/ activities)

   5 ☐ Student marketing/business class/club

   6 ☐ Parent organization

   7 ☐ Athletic department

   8 ☐ Other *(Specify)*

   _____

   d ☐ Don't know

4. Not counting machines that sell only milk, 100% juice, or water, when can students use **beverage machines** in the food service area?

MARK ALL THAT APPLY

   1 ☐ No other beverage machines in food service area

   2 ☐ Before school

   3 ☐ During breakfast

   4 ☐ During school hours, before lunch

   5 ☐ During lunch

   6 ☐ After lunch, before end of last regular class

   7 ☐ After last regular class

   8 ☐ Other *(Specify)*

   _____

4a. When can students use **snack machines** or other machines containing **snack foods** in the food service area?

MARK ALL THAT APPLY

   1 ☐ No machines with snack foods in food service area

   2 ☐ Before school

   3 ☐ During breakfast

   4 ☐ During school hours, before lunch

   5 ☐ During lunch

   6 ☐ After lunch, before end of last regular class

   7 ☐ After last regular class

   8 ☐ Other *(Specify)*

   _____

4b. Can students obtain reimbursable meals from vending machines?

   1 ☐ Yes

   0 ☐ No → ***Go to Q.5***

4c. When can students use vending machines offering reimbursable meals?

MARK ALL THAT APPLY

   1 ☐ Before school

   2 ☐ During breakfast

   3 ☐ During school hours, before lunch

   4 ☐ During lunch

   5 ☐ After lunch, before end of last regular class

   6 ☐ After last regular class

   7 ☐ Other *(Specify)*

   _____

5. Does the school food service department receive revenue or profit from vending machines located outside of the school food service area?

1 ☐ Yes
0 ☐ No

6. Approximately how much net income does the **school food service department** receive from vending machines anywhere in this school or on the school grounds (per year, month, or week)? Do not include any income that goes to the school or district in general or to other departments or groups.

$ [ ] PER

1 ☐ Year
2 ☐ Month
3 ☐ Week
4 ☐ No vending machines in school
0 ☐ School food service gets no income from vending machines
d ☐ Don't know

6a. Does the net income for the school food service department from vending machines include income from reimbursable meals sold through vending machines?

1 ☐ Yes
0 ☐ No → ***Go to Q.7***

6b. How much of that net income to the school food service department comes from reimbursable meals sold through vending machines?

$ [ ] PER

1 ☐ Year
2 ☐ Month
3 ☐ Week
d ☐ Don't know

MEAL PRICES

7. What is the price of a USDA-reimbursable breakfast for students who are classified as **reduced price**?

0 ☐ Don't participate in School Breakfast Program → ***Go to Q.8***
1 ☐ All students receive free breakfasts → ***Go to Q.7b***

$ [ ]

7a. What is the price of a USDA-reimbursable breakfast for students who pay the **full price**? Record more than one answer if your school offers breakfast at different prices (for example, a higher price for larger portions or a discount for a weekly meal ticket).

$ [ ] Standard full price

$ [ ] Other full price *(Specify)*

$ [ ] Other full price *(Specify)*

7b. Do you allow students to purchase individual components of reimbursable breakfasts on an a la carte basis?

1 ☐ Yes
0 ☐ No

8. What is the price of a USDA-reimbursable lunch for students who pay the **reduced price**?

0 ☐ All students receive free lunches → ***Go to Q.9***

$ [ ]

8a. What is the price of a USDA-reimbursable lunch for students who pay the **full price**? Record more than one answer if your school offers lunch at different prices (for example, a higher price for larger portions or a discount for a weekly meal ticket).

$ [ ] Standard full price

$ [ ] Other full price *(Specify)*

$ [ ] Other full price *(Specify)*

9. Do you allow students to purchase individual components of reimbursable lunches on an a la carte basis?

1 ☐ Yes

0 ☐ No → ***Go to Q.10***

9a. What prices do you generally charge for the following components of reimbursable lunches, when purchased a la carte? If the price varies by portion size or specific type of food, please report the price that is charged most often.

1.	Milk	$ _____
2.	Fruit	$ _____
3.	100% juice	$ _____
4.	Vegetable other than French fries	$ _____
5.	French fries	$ _____
6.	Side salad	$ _____
7.	Entrée salad (chef, grilled chicken)	$ _____
8.	Roll, bread, other grain item	$ _____
9.	Sandwiches, hot dog, hamburger, cheeseburger	$ _____
10.	Chicken nuggets/strips/patties	$ _____
11.	Pizza	$ _____
12.	Nachos	$ _____
13.	Burritos or other Mexican entrees	$ _____
14.	Desserts	$ _____
	Other *(Specify)*	
15.	_____	$ _____
16.	_____	$ _____

MEAL COUNTING

10. Are you responding for a high school?

1 ☐ Yes → ***Go to Q.13***

0 ☐ No

11. Do you use the offer-versus-serve option at breakfast?

1 ☐ Yes, for all students → ***Go to Q.12***

2 ☐ Yes, for some students

0 ☐ No → ***Go to Q.12***

3 ☐ Don't participate in School Breakfast Program → ***Go to Q.12***

11a. What grades are allowed to use offer-versus-serve at breakfast?

MARK ALL THAT APPLY

P ☐	Pre-K	5 ☐	5
K ☐	K	6 ☐	6
1 ☐	1	7 ☐	7
2 ☐	2	8 ☐	8
3 ☐	3	9 ☐	9
4 ☐	4		

12. Do you use the offer-versus-serve option at lunch?

1 ☐ Yes, for all students → ***Go to Q.13***

2 ☐ Yes, for some students

0 ☐ No → ***Go to Q.13***

12a. What grades are allowed to use offer-versus-serve at lunch?

MARK ALL THAT APPLY

P ☐	Pre-K	5 ☐	5
K ☐	K	6 ☐	6
1 ☐	1	7 ☐	7
2 ☐	2	8 ☐	8
3 ☐	3	9 ☐	9
4 ☐	4		

13. Does your school use food-based menu planning or nutrient-based menu planning?

1 ☐ Food based

2 ☐ Nutrient based → ***Go to Q.15***

14. How many servings of fruits and vegetables are students allowed to take in a reimbursable lunch?

1 ☐ Two
2 ☐ Three
3 ☐ Four
4 ☐ Five
5 ☐ As many as they want

GO TO Q.21

15. For reimbursable lunches, can students select any type of food to provide the allowable number of sides, or are sides divided into specific groups, for example, fruits and vegetables as one group of sides and desserts as another?

1 ☐ Any type of side
2 ☐ Sides divided into different groups → ***Go to Q.17***

16. Excluding milk, what is the maximum number of sides students are allowed to take in a reimbursable lunch?

☐☐ SIDES → ***Go to Q.18***

17. Which of the following groups of sides do you use at lunch? What is the maximum number of sides students can take from each group?

	Use this Group?		Maximum number from this group
	Yes	No	
a. Fruits and vegetables.....	1 ☐	0 ☐	
b. Fruit/juice.....	1 ☐	0 ☐	
c. Vegetables	1 ☐	0 ☐	
d. Grains or desserts (combined)	1 ☐	0 ☐	
e. Grains/breads.....	1 ☐	0 ☐	
f. Desserts	1 ☐	0 ☐	
g. Other *(Specify)* _____	1 ☐	0 ☐	

18. For reimbursable breakfasts, can students select any type of food to provide the allowable number of sides, or are sides divided into specific groups, for example, fruit and juice as one group of sides and cereal as another?

1 ☐ Any type of side
2 ☐ Sides divided into different groups → ***Go to Q.20***
0 ☐ Don't participate in School Breakfast Program → ***Go to Q.21***

19. Excluding milk, what is the maximum number of sides students are allowed to take in a reimbursable breakfast?

☐☐ SIDES → ***Go to Q.21***

20. Which of the following groups of sides do you use at breakfast? What is the maximum number of sides students can take from each group?

	Use this Group?		Maximum number from this group
	Yes	No	
a. Fruit and juice (combined)	1 ☐	0 ☐	
b. Fruit…	1 ☐	0 ☐	
c. Juice.....	1 ☐	0 ☐	
d. Cereal.....	1 ☐	0 ☐	
e. Other grains/breads	1 ☐	0 ☐	
f. Meats/meat alternates	1 ☐	0 ☐	
g. Meats/meat alternates and grains (combination entrees).....	1 ☐	0 ☐	
h. Other *(Specify)* _____	1 ☐	0 ☐	

21. How are students who are eligible for free or reduced-price lunches identified by the cashier?

MARK ALL THAT APPLY

1 ☐ Coded tickets or tokens
2 ☐ Cashier lists
3 ☐ Personal ID numbers (PINs)
4 ☐ Bar code/magnetic strip
5 ☐ Coded identification cards
6 ☐ Verbal identification
7 ☐ All students receive free lunches
8 ☐ Other *(Specify)*

_____

MEAL PERIODS

22. What time do you serve <u>breakfast</u>?

0 ☐ Don't participate in School Breakfast Program → ***Go to Q.23***

From	To
|___|___|:|___|___|	|___|___|:|___|___|

22a. How many minutes, on average, would you estimate a student spends in line to get breakfast?

		MINUTES

22b. Does your school offer breakfast in places other than the cafeteria, for example, in the classroom, on the bus, or grab and go breakfasts?

MARK ALL THAT APPLY

1 ☐ Yes, classrooms

2 ☐ Yes, school bus

3 ☐ Yes, grab and go

4 ☐ Yes, other

0 ☐ No, cafeteria only

23. What times are your <u>lunch</u> period(s)?

Period	From	To
1	|___|___|:|___|___|	|___|___|:|___|___|
2	|___|___|:|___|___|	|___|___|:|___|___|
3	|___|___|:|___|___|	|___|___|:|___|___|
4	|___|___|:|___|___|	|___|___|:|___|___|
5	|___|___|:|___|___|	|___|___|:|___|___|
6	|___|___|:|___|___|	|___|___|:|___|___|
7	|___|___|:|___|___|	|___|___|:|___|___|
8	|___|___|:|___|___|	|___|___|:|___|___|
9	|___|___|:|___|___|	|___|___|:|___|___|
10	|___|___|:|___|___|	|___|___|:|___|___|

24. How many minutes, on average, would you estimate a student spends in line to get lunch? Do not count waiting for made- or cooked-to-order items.

		MINUTES

25. Does your school have enough serving lines or stations to serve lunch to all students in the first half of each lunch period?

1 ☐ Yes

0 ☐ No

AFTERSCHOOL SNACKS

26. Does your school provide reimbursable snacks for one or more afterschool programs (either at this school or other locations)?

1 ☐ Yes
0 ☐ No → ***Go to Q.29***

27. How often are snacks picked up by or delivered to afterschool program staff?

MARK ONLY ONE

1 ☐ Daily
2 ☐ Weekly
3 ☐ Monthly
4 ☐ Other *(Specify)*

_____

28. How do you determine the number of reimbursable snacks served each day?

MARK ONLY ONE

1 ☐ Based on leftovers returned (compared to number of snacks provided the day before) → ***Go to Q.29***
2 ☐ Based on number of students enrolled in afterschool program → ***Go to Q.29***
3 ☐ Based on number of snacks requested by afterschool program → ***Go to Q.28a***
4 ☐ Based on attendance sheets maintained by afterschool program and provided to food service department → ***Go to Q.28b***
5 ☐ Based on other records maintained by afterschool program staff *(Specify)* → ***Go to Q.29***

_____

6 ☐ Other *(Specify)* → ***Go to Q.29***

_____

28a. The number of reimbursable snacks are based on snacks requested on a . . .

MARK ONLY ONE

1 ☐ Daily basis
2 ☐ Weekly basis
3 ☐ Monthly basis
4 ☐ Some other basis *(Specify)*

_____

GO TO Q.29

28b. The number of reimbursable snacks are based on attendance sheets provided on a . . .

MARK ONLY ONE

1 ☐ Daily basis
2 ☐ Weekly basis
3 ☐ Monthly basis
4 ☐ Some other basis *(Specify)*

_____

NUTRITION PROMOTION/EDUCATION

29. Does your school participate in the Fresh Fruit and Vegetable Program (FFVP)—a program that provides funds to purchase fresh fruits and vegetables and distribute them free to students outside of reimbursable meals?

1 ☐ Yes
0 ☐ No

30. Is your school participating in any national, state, or local nutrition/wellness initiatives, other than the development/implementation of a school district wellness policy?

1 ☐ Yes
0 ☐ No → ***Go to Q.31***

30a. Which initiatives is your school involved in?

MARK ALL THAT APPLY

1 ☐ Team Nutrition
2 ☐ Healthy Schools Program (Alliance for a Healthier Generation)
3 ☐ Steps to a Healthier US (Centers for Disease Control and Prevention program)
4 ☐ Healthy Kids Challenge
5 ☐ PE4Life
6 ☐ CATCH (Coordinated Approach to Child Health)
7 ☐ Game On! The Ultimate Wellness Challenge (Action for Healthy Kids)
8 ☐ ReCharge! Energizing Afterschool (Action for Healthy Kids)
8 ☐ Healthy Eating by Design (Robert Wood Johnson Foundation)
10 ☐ Active Living by Design (Robert Wood Johnson Foundation)
11 ☐ Healthy Kids Healthy Communities (Robert Wood Johnson Foundation)
12 ☐ HealthierUS School Challenge
13 ☐ Other (*Specify)* _____
14 ☐ Other *(Specify*) _____
15 ☐ Other (*Specify*) _____

31. Does your school routinely make information on the nutrient content of USDA-reimbursable meals available to students or parents?

1 ☐ Yes
0 ☐ No → ***Go to Q.32***

31a. How do you make nutrition information available to students or parents?

MARK ALL THAT APPLY

1 ☐ Send menus/flyers home
2 ☐ Post information in school (for example, on bulletin boards or on cafeteria lines)
3 ☐ Post information online
4 ☐ Post information on TV
5 ☐ Post information in newspapers
6 ☐ Other *(Specify)*

_____

32. In the past 12 months, have you or anyone on your staff engaged in the following activities?

	Yes	No
a. Attended a PTA or other parent group meeting to discuss the school food service program	1 ☐	0 ☐
b. Provided families with information about the school food service program	1 ☐	0 ☐
c. Invited family members to consume a school meal	1 ☐	0 ☐
d. Participated in a nutrition education activity in the classroom	1 ☐	0 ☐
e. Conducted a nutrition education activity in the food service area	1 ☐	0 ☐
f. Participated in a school meeting about local wellness policy	1 ☐	0 ☐
g. Participated in a district meeting about local wellness policy	1 ☐	0 ☐

BACKGROUND AND EXPERIENCE

33. How long have you been a school food service manager?

☐☐ YEARS OR ☐☐ MONTHS

34. What is the highest grade or year of schooling you have completed?

MARK ONLY ONE

1 ☐ Less than high school
2 ☐ High school
3 ☐ Some college, no degree
4 ☐ Associate's degree
5 ☐ Bachelor's degree
6 ☐ Graduate degree

35. Which of the following credentials do you hold?

MARK ALL THAT APPLY

1 ☐ Associate's degree in consumer science, hotel/restaurant management, baking/ culinary arts, etc.
2 ☐ Bachelor's degree in consumer science, hotel/restaurant management, culinary arts, etc.
3 ☐ Licensed nutritionist
4 ☐ Master's level nutritionist
5 ☐ On-the-job training
6 ☐ Registered Dietitian
7 ☐ School Nutrition Specialist (SNA certified)
8 ☐ State food service certificate
0 ☐ None of the above
9 ☐ Other *(Specify)*

_____

Thank you for taking the time to complete this survey. Your cooperation is very much appreciated.

Please keep a copy of the completed form for your records. Please return the completed form with the other completed Menu Survey forms in the pre-addressed Federal Express envelope provided. If you no longer have the envelope, please mail this completed form to:

Mathematica Policy Research, Inc.
Attn: Receipt Control – SNDA IV Project 6546
P.O. Box 2393
Princeton, NJ 08543-2393

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ID#: |__|__|__|__|__|__|__|__|

Name of School:_____

SFA:_____

City and State:_____

OMB Clearance Number: 0584-0527
Expiration Date: 09/30/2012

School Nutrition Dietary Assessment Study

Principal Survey

Sponsored by:

U.S. Department of Agriculture
Food and Nutrition Service

INSTRUCTIONS

- Please answer all of the questions.
- Unless you see the words MARK ALL THAT APPLY after a question, please mark only one answer for each question.
- If you have any questions about the study or about completing this survey, please do not hesitate to contact Annalee Kelly by phone at 1-xxx-xxx-xxxx or email akelly@mathematica-mpr.com

The information you provide will be used only for statistical purposes. In accordance with the Confidential Information Protection and Statistical Efficiency Act of 2002, your responses will not be disclosed in identifiable form without your consent.

Participation is completely voluntary. Choosing not to participate will not affect your employment or your district's participation in school meal programs in any way.

We thank you for your cooperation and participation in this very important study.

FOR ASSISTANCE CALL TOLL FREE: 1-xxx-xxx-xxxx

SCHOOL MEAL POLICIES

1. Where do students eat school breakfast?

MARK ALL THAT APPLY

1 ☐ No breakfast program
2 ☐ Cafeteria or other indoor/outdoor food service area
3 ☐ School buses
4 ☐ Classrooms
5 ☐ Outdoors
6 ☐ Other *(Specify)*

_____

2. Are all students scheduled to have a lunch period every day?

1 ☐ Yes → ***Go to Q.3***
0 ☐ No

2a. Why do some students not have a lunch period?

MARK ALL THAT APPLY

1 ☐ Take extra credit class instead
2 ☐ Take remedial class instead
3 ☐ Take class only available during scheduled lunch
4 ☐ Schedule does not include lunch period
5 ☐ Other *(Specify)*

_____

3. Are all students required to go to the cafeteria or food service area (indoor or outdoor) during their lunch period?

1 ☐ Yes → ***Go to Q.5***
0 ☐ No

4. Where may students go during their lunch period?

MARK ALL THAT APPLY

1 ☐ Food service area/cafeteria or other area where meals are served
2 ☐ Classroom but only with teacher permission
3 ☐ Classrooms open to students during lunch period
4 ☐ Library
5 ☐ Gym
6 ☐ Computer lab or media center
7 ☐ Outside, on campus
8 ☐ Other designated area on campus, such as hallways, student commons
9 ☐ Anywhere on campus
10 ☐ Off-campus/home
11 ☐ Other *(Specify)*

_____

4a. What grades are allowed to go off-campus during their lunch period?

0 ☐ None → ***Go to Q.5***

MARK ALL THAT APPLY

P ☐ Pre K	4 ☐ 4	9 ☐ 9
K ☐ K	5 ☐ 5	10 ☐ 10
1 ☐ 1	6 ☐ 6	11 ☐ 11
2 ☐ 2	7 ☐ 7	12 ☐ 12
3 ☐ 3	8 ☐ 8	

4b. Which of the following off-campus food sources are close enough for students to walk or drive to during lunch?

1 ☐ Fast food restaurants

2 ☐ Other restaurants, cafeterias, or diners

3 ☐ Supermarkets, convenience stores, or other stores

4 ☐ Off-campus lunch wagons or push carts

5 ☐ Home or home of relative or friend

6 ☐ Other food sources *(Specify)*

_____

5. Are students who do not bring or buy lunch allowed to be in the area where students eat lunch?

1 ☐ Yes

0 ☐ No

2 ☐ Some are, some aren't

6. Does your school have rules or written policies about when students may buy a la carte foods, that is, foods other than a reimbursable meal or milk?

1 ☐ Yes

2 ☐ Rules for some students

0 ☐ No, students may buy a la carte foods under any circumstances → ***Go to Q.7***

6a. Which of the following rules apply to the purchase of a la carte foods? A la carte foods may be purchased . . .

MARK ALL THAT APPLY

1 ☐ when a student takes a reimbursable meal

2 ☐ when a student brings lunch from home

3 ☐ after a student has eaten their meal (whether reimbursable or brought from home)

4 ☐ when all students have had the opportunity to take a reimbursable meal

5 ☐ other restriction *(Specify)*

_____

7. Are students allowed to visit other tables during meal times?

1 ☐ Yes
0 ☐ No
2 ☐ Some are, some aren't

7a. Are students who go to the area where students eat lunch allowed to leave after a set period of time during their lunch period, for example, after the first 15 minutes, or do they have to stay for the full lunch period?

1 ☐ Yes, all students may leave → ***Go to Q.8***
2 ☐ Yes, some students may leave
0 ☐ No, all students must stay in the area for the full period → ***Go to Q.9***

7b. Which grades are allowed to leave after a set period of time?

MARK ALL THAT APPLY

P ☐ Pre K	4 ☐ 4	9 ☐ 9
K ☐ K	5 ☐ 5	10 ☐ 10
1 ☐ 1	6 ☐ 6	11 ☐ 11
2 ☐ 2	7 ☐ 7	12 ☐ 12
3 ☐ 3	8 ☐ 8	

8. Are any students who go to the area where students eat lunch allowed to leave *at any time* during their lunch period?

1 ☐ Yes, all students may leave at any time → ***Go to Q.9***
2 ☐ Yes, some students may leave at any time (either with or without special permission)
0 ☐ No, all students must stay in the area for full period → ***Go to Q.9***

8a. Which grades are allowed to leave **at any time**?

MARK ALL THAT APPLY

P ☐ Pre K	4 ☐ 4	9 ☐ 9
K ☐ K	5 ☐ 5	10 ☐ 10
1 ☐ 1	6 ☐ 6	11 ☐ 11
2 ☐ 2	7 ☐ 7	12 ☐ 12
3 ☐ 3	8 ☐ 8	

9. Are other school activities, such as pep rallies, club meetings, bake sales or other fundraisers, or tutoring sessions ever scheduled during meal times (breakfast or lunch)?

1 ☐ Yes
0 ☐ No → ***Go to Q.10***

(If no breakfast (Q.1 = 1), go to Q.9b)

9a. On average, how often are the following types of activities scheduled during the **breakfast** period? MARK ONE RESPONSE FOR EACH ACTIVITY

	Every day	3-4x Per Week	1-2x Per Week	Less Than 1x Per Week or Never
Pep rallies	1 ☐	2 ☐	3 ☐	0 ☐
Club meetings	1 ☐	2 ☐	3 ☐	0 ☐
Tutoring sessions	1 ☐	2 ☐	3 ☐	0 ☐
Bake sales	1 ☐	2 ☐	3 ☐	0 ☐
Other fundraisers that include sweet or salty snack foods	1 ☐	2 ☐	3 ☐	0 ☐
Fundraisers that include pizza or other types of food	1 ☐	2 ☐	3 ☐	0 ☐
Other *(Specify)* _____	1 ☐	2 ☐	3 ☐	0 ☐

9b. On average, how often are the following types of activities scheduled during the **lunch** period? MARK ONE RESPONSE FOR EACH ACTIVITY

	Every day	3-4x Per Week	1-2x Per Week	Less Than 1x Per Week or Never
Pep rallies	1 ☐	2 ☐	3 ☐	0 ☐
Club meetings	1 ☐	2 ☐	3 ☐	0 ☐
Tutoring sessions	1 ☐	2 ☐	3 ☐	0 ☐
Bake sales	1 ☐	2 ☐	3 ☐	0 ☐
Other fundraisers that include sweet or salty snack foods	1 ☐	2 ☐	3 ☐	0 ☐
Fundraisers that include pizza or other types of food	1 ☐	2 ☐	3 ☐	0 ☐
Other *(Specify)* _____	1 ☐	2 ☐	3 ☐	0 ☐

(If responding for a high school, go to Q.12)

10. Does your school have recess?

1 ☐ Yes

0 ☐ No → ***Go to Q.12***

10a. Do any students have recess immediately before lunch?

1 ☐ Yes

0 ☐ No → ***Go to Q.11***

10b. Which grades have recess immediately before lunch?

MARK ALL THAT APPLY

P	☐ Pre K	5	☐ 5
K	☐ K	6	☐ 6
1	☐ 1	7	☐ 7
2	☐ 2	8	☐ 8
3	☐ 3	9	☐ 9
4	☐ 4		

11. Do any students have recess immediately after lunch?

1 ☐ Yes

0 ☐ No → ***Go to Q.11b***

11a. Which grades have recess immediately after lunch?

MARK ALL THAT APPLY

P	☐ Pre K	5	☐ 5
K	☐ K	6	☐ 6
1	☐ 1	7	☐ 7
2	☐ 2	8	☐ 8
3	☐ 3	9	☐ 9
4	☐ 4		

11b. Are students allowed to go out to recess before the official end of their lunch period?

1 ☐ Yes

0 ☐ No → ***Go to Q.12***

11c. Are there any rules about when students can go out to recess?

1 ☐ Yes

0 ☐ No → ***Go to Q.12***

11d. Please describe these rules.

_____

_____

12. Does your school have enough serving lines or stations to serve all students during the first <u>half</u> of each lunch period?

1 ☐ Yes

0 ☐ No

VENDING MACHINES

13. Where are vending machines available to students in your school or on the school grounds?

MARK ALL THAT APPLY

0 ☐ No vending machines for students → ***Go to Q.15***
1 ☐ Food service area(s) (indoor or outdoor area(s) where meals are served/eaten)
2 ☐ Other indoor area(s)
3 ☐ Other outside areas (on school grounds)

13a. Approximately how many **beverage** machines are there in your school or on the school grounds?

1 ☐ 1 to 5
2 ☐ 6 to 25
3 ☐ More than 25

13b. Not counting machines that sell only milk, 100% juice, or water, when can students use the **beverage machines** outside of the food service area?

MARK ALL THAT APPLY

1 ☐ No other beverage machines outside of food service area
2 ☐ Before school
3 ☐ During breakfast
4 ☐ During school hours, before lunch
5 ☐ During lunch
6 ☐ After lunch, before end of last regular class
7 ☐ After last regular class
8 ☐ Other *(Specify)*

_____

13c. Are beverage sales in your school covered by a "pouring rights" contract (that is, a long-term contract with a beverage company that establishes the company as a sole source vendor for beverages in the school)? Count beverages sold by school food service as well as those sold in vending machines or other venues not controlled by school food service.

1 ☐ Yes
0 ☐ No
d ☐ Don't know

13d. When can students use the **snack machines** or other machines containing **snack foods** outside of the food service area?

MARK ALL THAT APPLY

1 ☐ No machines with snack foods outside of the food service area
2 ☐ Before school
3 ☐ During breakfast
4 ☐ During school hours, before lunch
5 ☐ During lunch
6 ☐ After lunch, before end of last regular class
7 ☐ After last regular class
8 ☐ Other *(Specify)*

_____

13e. Who receives revenue or profit from vending machines in your school? Include all machines, regardless of location or type.

MARK ALL THAT APPLY

1 ☐ School

2 ☐ School food service **only** → ***Go to Q.15***

3 ☐ District

4 ☐ School food service and other school/district departments

5 ☐ Student organization (student council/clubs/ activities)

6 ☐ Student marketing/business class/club

7 ☐ Parent organization

8 ☐ Athletic department

9 ☐ Other *(Specify)*

_____

d ☐ Don't know

14. Approximately how much net income does your school or the district receive from vending machines anywhere in the school or on the school grounds (per year, month, or week)? Do not include any income that goes to school food service only.

$ [ ] PER

1 ☐ Year

2 ☐ Month

3 ☐ Week

4 ☐ Other *(Specify)*

_____

0 ☐ School or district gets no income from vending machines

d ☐ Don't know

SCHOOL STORE/SNACK BAR

15. Do you have a school store that sells foods or beverages (including snack foods)?

1 ☐ Yes
0 ☐ No → ***Go to Q.16***

15a. What days of the week is the school store usually open?

MARK ALL THAT APPLY

1 ☐ Monday
2 ☐ Tuesday
3 ☐ Wednesday
4 ☐ Thursday
5 ☐ Friday
6 ☐ Various or no set schedule

15b. When is the store usually open to students?

MARK ALL THAT APPLY

1 ☐ Before school
2 ☐ During breakfast
3 ☐ During school hours, before lunch
4 ☐ During lunch
5 ☐ After lunch, before end of regular last class
6 ☐ After last regular class

15c. Who is responsible for the school store?

MARK ALL THAT APPLY

1 ☐ School food service
2 ☐ Principal
3 ☐ Athletic department
4 ☐ Student or parent organization/club
5 ☐ Other school department *(Specify)*

_____

6 ☐ Other *(Specify)*

_____

d ☐ Don't know

15d. Who receives income from the school store?

MARK ALL THAT APPLY

1 ☐ School
2 ☐ School food service **only** → ***Go to Q.16***
3 ☐ District
4 ☐ School food service and other school/district departments
5 ☐ Student organization (student council/clubs/ activities)
6 ☐ Student marketing/business class/club
7 ☐ Parent organization
8 ☐ Athletic department
9 ☐ Other *(Specify)*

_____

d ☐ Don't know

15e. Approximately how much total net income is generated from the school store (per year, month, or week)? Do not include income that goes to school food service.

$ ☐ PER

1 ☐ Year
2 ☐ Month
3 ☐ Week
4 ☐ Other *(Specify)*

_____

0 ☐ No income generated from school store
d ☐ Don't know

16. Outside of the food service area, do you have a school snack bar (that is, a place that prepares or serves food but does not offer reimbursable meals)?

1 ☐ Yes
0 ☐ No → ***Go to Q.17***

16a. What days of the week is the snack bar open?

MARK ALL THAT APPLY

1 ☐ Monday
2 ☐ Tuesday
3 ☐ Wednesday
4 ☐ Thursday
5 ☐ Friday
6 ☐ Various or no set schedule

16b. When is the snack bar usually open to students?

MARK ALL THAT APPLY

1 ☐ Before school
2 ☐ During breakfast
3 ☐ During school hours, before lunch
4 ☐ During lunch
5 ☐ After lunch, before end of regular last class
6 ☐ After last regular class

16c. Who receives the income from the snack bar?

MARK ALL THAT APPLY

1 ☐ School
2 ☐ School food service **only** → ***Go to Q.17***
3 ☐ District
4 ☐ School food service and other school/district departments
5 ☐ Student organization (student council/clubs/ activities)
6 ☐ Student marketing/business class/club
7 ☐ Parent organization
8 ☐ Athletic department
9 ☐ Other *(Specify)*

_____

d ☐ Don't know

16d. Approximately how much total net income is generated from the snack bar (per year, month, or week)? Do not include income that goes to school food service.

$ [ ] PER

1 ☐ Year
2 ☐ Month
3 ☐ Week
4 ☐ Other *(Specify)*

_____

0 ☐ No income generated from snack bar
d ☐ Don't know

NUTRITION EDUCATION AND PROMOTION/WELLNESS

17. Have you heard about USDA's Team Nutrition Initiative?

1 ☐ Yes
0 ☐ No → ***Go to Q.18***

17a. Have your teachers used USDA's Team Nutrition materials for students or parents?

1 ☐ Yes
0 ☐ No

18. Is your school participating in any national, state, or local nutrition/wellness initiatives, other than the development/implementation of a school district wellness policy?

1 ☐ Yes
0 ☐ No
d ☐ Don't know → ***Go to Q.19***

18a. Which initiatives is your school involved in?

MARK ALL THAT APPLY

1 ☐ Team Nutrition
2 ☐ Healthy Schools Program (Alliance for a Healthier Generation)
3 ☐ Steps to a Healthier US (Centers for Disease Control and Prevention program)
4 ☐ Healthy Kids Challenge
5 ☐ PE4Life
6 ☐ CATCH (Coordinated Approach to Child Health)
7 ☐ Game On! The Ultimate Wellness Challenge (Action for Healthy Kids)
8 ☐ ReCharge! Energizing Afterschool (Action for Healthy Kids)
9 ☐ Healthy Eating by Design (Robert Wood Johnson Foundation)
10 ☐ Active Living by Design (Robert Wood Johnson Foundation)
11 ☐ Healthy Kids Healthy Communities (Robert Wood Johnson Foundation)
12 ☐ HealthierUS School Challenge
13 ☐ Other (*Specify*)

_____

19. Does your school have a requirement that students receive nutrition education in class?

1 ☐ Yes
0 ☐ No → ***Go to Q.20***

19a. Does this nutrition education requirement apply to all students?

1 ☐ Yes → ***Go to Q.19c***

0 ☐ No

19b. To which grades does it apply?

MARK ALL THAT APPLY

P ☐ Pre K	4 ☐ 4	9 ☐ 9
K ☐ K	5 ☐ 5	10 ☐ 10
1 ☐ 1	6 ☐ 6	11 ☐ 11
2 ☐ 2	7 ☐ 7	12 ☐ 12
3 ☐ 3	8 ☐ 8	

19c. How much nutrition education do students receive in class?

☐☐ HOURS ☐☐ MINUTES

1 ☐ Per week

2 ☐ Per month

3 ☐ Per year

20. Does your school include required, structured physical education classes for students?

1 ☐ Yes

0 ☐ No → ***Go to Q.21***

20a. Do students take physical education classes throughout the year or only for a portion of the year?

1 ☐ Throughout the year → ***Go to Q.20c***

2 ☐ Only for a portion of the year

20b. Do students take physical education classes for . . .

1 ☐ One quarter of the school year?

2 ☐ One semester or half the school year?

3 ☐ Some other amount of time? *(Specify)*

_____

20c. (When students are taking physical education classes,) what is the average number of minutes per week that physical education is provided to students in each grade?

Grade	Minutes Per Week
P. Pre K	|___|___|
K. K	|___|___|
1. 1st	|___|___|
2. 2nd	|___|___|
3. 3rd	|___|___|
4. 4th	|___|___|
5. 5th	|___|___|
6. 6th	|___|___|
7. 7th	|___|___|
8. 8th	|___|___|
9. 9th	|___|___|
10. 10th	|___|___|
11. 11th	|___|___|
12. 12th	|___|___|

21. Does your school regularly provide students with opportunities for physical activity outside of physical education classes, but during school hours?

1 ☐ Yes
0 ☐ No → ***Go to Q.22***

21a. What is the average number of minutes per week that students get opportunities for physical activity, outside of physical education classes?

MINUTES PER WEEK

22. What kinds of activities do you use to provide opportunities for physical activity?

MARK ALL THAT APPLY

1 ☐ Recess
2 ☐ Staff-led walks
3 ☐ Aerobic/active "stretch breaks"
4 ☐ Faculty-led games/activities
5 ☐ Free play in gymnasium/on playing fields
6 ☐ Other *(Specify)*

_____

23. Does your school or school district have a wellness policy?

1 ☐ Yes
0 ☐ No → ***Go to Q.24***
d ☐ Don't Know → ***Go to Q.24***

23a. Which of the following has a wellness policy?

1 ☐ School
2 ☐ School district

23b. To what degree does your school implement the district's wellness policy?

1 ☐ Fully implement
2 ☐ Implement some of it
3 ☐ Implement only a little
4 ☐ Don't implement at this time

23c. Do you or anyone else in your school participate in a local wellness committee at the district level?

1 ☐ Yes
0 ☐ No

(If Q.23 is NO or DK, go to Q.27)

24. Does your school have a designated wellness coordinator?

1 ☐ Yes
0 ☐ No → ***Go to Q.25***

24a. Does this person have another job at the school?

1 ☐ Yes
0 ☐ No → ***Go to Q.24c***

24b. What is this person's title?

TITLE:_____

(Go to Q.24d)

24c. Is the wellness coordinator a paid or volunteer position?

1 ☐ Paid
2 ☐ Volunteer

24d. How many hours per week does this person spend on wellness-related activities?

☐☐ HOURS PER WEEK

25. Following is a list of potential wellness policy components. For each, please indicate whether the component is addressed in your district or school wellness policy and, if so, the extent to which the wellness policy requirements have been implemented in your school.

	MARK ONE RESPONSE FOR EACH				
	Addressed in Policy and Fully Implemented	**Addressed in Policy and Partially Implemented**	**Still Being Planned**	**Not Addressed in Policy**	**Don't Know**
Nutrition education	1 ☐	2 ☐	3 ☐	4 ☐	d ☐
Physical education	1 ☐	2 ☐	3 ☐	4 ☐	d ☐
Daily physical activity	1 ☐	2 ☐	3 ☐	4 ☐	d ☐
Nutrition guidelines for foods sold outside of school meals (a la carte sales, vending machines, school stores)	1 ☐	2 ☐	3 ☐	4 ☐	d ☐
Use of food or food coupons as student rewards	1 ☐	2 ☐	3 ☐	4 ☐	d ☐
Access to competitive foods during school hours	1 ☐	2 ☐	3 ☐	4 ☐	d ☐
Minimum amount of time for students to eat lunch	1 ☐	2 ☐	3 ☐	4 ☐	d ☐
Staff wellness program	1 ☐	2 ☐	3 ☐	4 ☐	d ☐
Parent involvement	1 ☐	2 ☐	3 ☐	4 ☐	d ☐
Community involvement	1 ☐	2 ☐	3 ☐	4 ☐	d ☐
Plan for measuring implementation	1 ☐	2 ☐	3 ☐	4 ☐	d ☐
Plan for measuring impact	1 ☐	2 ☐	3 ☐	4 ☐	d ☐

26. Following is a list of factors that can strengthen implementation of district or school wellness policies or present barriers to implementation. Please rate how each factor has influenced implementation of the wellness policy in your school: same comment as above.

	MARK ONE RESPONSE FOR EACH					
	Greatly Strengthened	Somewhat Strengthened	Neutral	Somewhat of a Barrier	Substantial Barrier	Don't Know
Attitude of district administrators	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	d ☐
Attitude of teachers/other school staff	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	d ☐
Attitude of parents	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	d ☐
Attitude of students	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	d ☐
District/school leadership	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	d ☐
District/school priorities	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	d ☐
Expertise of district/school staff	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	d ☐
Availability of local champion/leader	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	d ☐
Vendor flexibility	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	d ☐
Financial impact	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	d ☐
Other *(Specify)*						
_____	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	d ☐
_____	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	d ☐
_____	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐	d ☐

SCHOOL CHARACTERISTICS

27. Is your school a charter school?

1 ☐ Yes

0 ☐ No

28. As of October 1 of the current school year, what was the total enrollment at your school?

☐☐☐☐ STUDENTS

28a. Are the school meal programs *unavailable* to any of these students, for example part-day kindergarteners or students who actually attend school in a different location?

1 ☐ Yes

0 ☐ No → ***Go to Q.29***

28b. For how many students are the school meal programs not available?

☐☐☐☐ STUDENTS

29. What is the average daily attendance at your school?

☐☐☐☐ STUDENTS

OR

☐☐ PERCENT

30. What time do the school doors open for students?

☐☐ : ☐☐ AM

31. When does the first school bus usually arrive at school?

☐☐ : ☐☐ AM

0 ☐ No school buses in the AM → ***Go to Q.33***

32. When does the last school bus usually arrive at school in the morning?

☐☐ : ☐☐ AM

0 ☐ No school buses in the AM

33. What time does the first class of the day usually start?

☐☐ : ☐☐ AM

34. We would like to have someone on your staff complete a more detailed two-part form about the different sources of foods and beverages at your school. This will take a half hour on average, depending on the number of different sources. We will send this person a small monetary gift as a thank you for completing the form. This should be someone who is detail oriented and could provide information in a methodical fashion, such as a teacher, counselor, or administrator. It does not need to be someone in the food service department.

34a. What is the name of the person we should contact?

_____

34b. What is their title?

_____

34c. What is their email address?

_____

34d. What is their phone number?

_____

Thank you for taking the time to complete this survey. We greatly appreciate your assistance.

COMPETITIVE FOODS CHECKLISTS

Vending Machine Form

Other Sources of Foods and Beverages Form

Training Module

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OMB Clearance Number: 0584-0527
Expiration Date: 09/30/2012

SCHOOL NUTRITION DIETARY ASSESSMENT STUDY
Vending Machines (Simple)

Please return completed form by fax to (609) 799-0005 (Attn: Annalee Kelly)

Your Name: _____ Title: _____

Phone #: _____ Date form completed: _____

School Name: _____

Does your school have any vending machines available to students during the day, including before or after school?

☐ Yes → Continue ☐ No → Thank you. You are done. Please fax form to number shown above.

Instructions: Please provide the following information for every vending machine (anywhere on school grounds) that is available to students during the day, including before or after school.

A. BEVERAGE MACHINES

	Beverage Machine 1	Beverage Machine 2	Beverage Machine 3	Beverage Machine 4	Beverage Machine 5
1. Machine Type → Check here if machine contains beverages AND snacks	1 ☐	1 ☐	1 ☐	1 ☐	1 ☐
2. Location → Check only one location for each beverage machine					
In cafeteria (including indoor and outdoor seating/eating area)	2 ☐	2 ☐	2 ☐	2 ☐	2 ☐
Outside but near (within 20 feet) cafeteria or seating/eating area	3 ☐	3 ☐	3 ☐	3 ☐	3 ☐
Elsewhere in school building(s)	4 ☐	4 ☐	4 ☐	4 ☐	4 ☐
Outside school building(s), but on school grounds (not in eating area)	5 ☐	5 ☐	5 ☐	5 ☐	5 ☐
3. Capacity/Size → Count and enter the number of buttons OR front slots for each beverage machine					
If slots are not visible: Enter # of selection buttons (not sold out)	6 |_____|	6 |_____|	6 |_____|	6 |_____|	6 |_____|
Enter # of buttons that are sold out	7 |_____|	7 |_____|	7 |_____|	7 |_____|	7 |_____|
Total # of buttons (available + sold out)	8 |_____|	8 |_____|	8 |_____|	8 |_____|	8 |_____|
If slots are visible: Enter # of front slots that are filled	9 |_____|	9 |_____|	9 |_____|	9 |_____|	9 |_____|
Enter # of front slots that are empty	10 |_____|	10 |_____|	10 |_____|	10 |_____|	10 |_____|
Total # of front slots (filled + empty)	11 |_____|	11 |_____|	11 |_____|	11 |_____|	11 |_____|
4. Beverages → Enter the number of front slots/buttons for each item					
Diet carbonated soft drink (diet soda/pop)	12 |_____|	12 |_____|	12 |_____|	12 |_____|	12 |_____|
Regular carbonated soft drink (regular soda/pop)	13 |_____|	13 |_____|	13 |_____|	13 |_____|	13 |_____|
Juice (100% fruit or vegetable juice)	14 |_____|	14 |_____|	14 |_____|	14 |_____|	14 |_____|
Juice drinks and other sweetened drinks (such as cranberry drink, fruit blends, Hi-C, lemonade, punch, iced tea)	15 |_____|	15 |_____|	15 |_____|	15 |_____|	15 |_____|
Energy and sports drinks (such as Gatorade, PowerAde, Red Bull, Vitamin Water)	16 |_____|	16 |_____|	16 |_____|	16 |_____|	16 |_____|
Bottled water (plain, flavored, or sparkling)	17 |_____|	17 |_____|	17 |_____|	17 |_____|	17 |_____|
Hot or cold chocolate drinks (such as Yoo-hoo; NOT chocolate milk)	18 |_____|	18 |_____|	18 |_____|	18 |_____|	18 |_____|
Flavored milk (such as chocolate or strawberry)	19 |_____|	19 |_____|	19 |_____|	19 |_____|	19 |_____|
Whole or reduced fat (2%) white milk	20 |_____|	20 |_____|	20 |_____|	20 |_____|	20 |_____|
Low-fat (1%) white milk	21 |_____|	21 |_____|	21 |_____|	21 |_____|	21 |_____|
Fat-free/skim white milk	22 |_____|	22 |_____|	22 |_____|	22 |_____|	22 |_____|
Other *(Specify)* _____	23 |_____|	23 |_____|	23 |_____|	23 |_____|	23 |_____|
Other *(Specify)* _____	24 |_____|	24 |_____|	24 |_____|	24 |_____|	24 |_____|

B. SNACK MACHINES

	Snack Machine 1	Snack Machine 2	Snack Machine 3	Snack Machine 4	Snack Machine 5
1. Machine Type → Check here if this is a continuation of a machine that also includes beverages	1 ☐	1 ☐	1 ☐	1 ☐	1 ☐
2. Location → Check only one location for each snack machine					
In cafeteria (including indoor and outdoor seating/eating area)	2 ☐	2 ☐	2 ☐	2 ☐	2 ☐
Outside but near (within 20 feet) cafeteria or seating/eating area	3 ☐	3 ☐	3 ☐	3 ☐	3 ☐
Elsewhere in school building(s)	4 ☐	4 ☐	4 ☐	4 ☐	4 ☐
Outside school building(s), but on school grounds (not in eating area)	5 ☐	5 ☐	5 ☐	5 ☐	5 ☐
3. Capacity/Size → Count and enter the number of front slots OR buttons for each snack machine					
If slots are not visible: Enter # of selection buttons (not sold out)	6 _____	6 _____	6 _____	6 _____	6 _____
Enter # of buttons that are sold out	7 _____	7 _____	7 _____	7 _____	7 _____
Total # of buttons (available + sold out)	8 _____	8 _____	8 _____	8 _____	8 _____
If slots are visible: Enter # of front slots that are filled	9 _____	9 _____	9 _____	9 _____	9 _____
Enter # of front slots that are empty	10 _____	10 _____	10 _____	10 _____	10 _____
Total # of front slots (filled + empty)	11 _____	11 _____	11 _____	11 _____	11 _____
4. Snacks → Enter the number of front slots/buttons for each item					
Low-fat/reduced-fat/baked chips (such as corn, potato, puffed cheese, tortilla, or snack mixes)	12 _____	12 _____	12 _____	12 _____	12 _____
Regular chips (such as corn, potato, puffed cheese, tortilla, or snack mixes)	13 _____	13 _____	13 _____	13 _____	13 _____
Pretzels	14 _____	14 _____	14 _____	14 _____	14 _____
Popcorn	15 _____	15 _____	15 _____	15 _____	15 _____
Cracker sandwiches with cheese or peanut butter	16 _____	16 _____	16 _____	16 _____	16 _____
Other types of crackers (including animal crackers)	17 _____	17 _____	17 _____	17 _____	17 _____
Low-fat/reduced-fat granola bars, cereal bars, or energy bars	18 _____	18 _____	18 _____	18 _____	18 _____
Regular granola bars, cereal bars, or energy bars	19 _____	19 _____	19 _____	19 _____	19 _____
Crispy rice bars or treats	20 _____	20 _____	20 _____	20 _____	20 _____
Candy	21 _____	21 _____	21 _____	21 _____	21 _____
Gum	22 _____	22 _____	22 _____	22 _____	22 _____
Nuts and/or seeds (such as almonds, peanuts, sunflower seeds, or trail mix)	23 _____	23 _____	23 _____	23 _____	23 _____
Fruit snacks (such as Fruit Roll-Ups or fruit leather)	24 _____	24 _____	24 _____	24 _____	24 _____
Meat snacks (such as jerky or pork rinds)	25 _____	25 _____	25 _____	25 _____	25 _____
Other (*Specify*) _____	26 _____	26 _____	26 _____	26 _____	26 _____
5. Baked Goods → Enter the number of front slots/buttons for each item					
Low-fat/reduced-fat cakes, cupcakes, or brownies	27 _____	27 _____	27 _____	27 _____	27 _____
Regular cakes, cupcakes, or brownies	28 _____	28 _____	28 _____	28 _____	28 _____
Low-fat pies, turnovers, or toaster pastries	29 _____	29 _____	29 _____	29 _____	29 _____
Regular pies, turnovers, or toaster pastries	30 _____	30 _____	30 _____	30 _____	30 _____
Doughnuts	31 _____	31 _____	31 _____	31 _____	31 _____
Low-fat cookies	32 _____	32 _____	32 _____	32 _____	32 _____
Regular cookies	33 _____	33 _____	33 _____	33 _____	33 _____
Bread, rolls, bagels, or tortillas	34 _____	34 _____	34 _____	34 _____	34 _____
Other (*Specify*) _____	35 _____	35 _____	35 _____	35 _____	35 _____
6. Other Foods → Enter the number of front slots/buttons for each item					
Yogurt	36 _____	36 _____	36 _____	36 _____	36 _____
Cheese	37 _____	37 _____	37 _____	37 _____	37 _____
Frozen fruit bars, or popsicles	38 _____	38 _____	38 _____	38 _____	38 _____
Milkshakes, smoothies, or yogurt drinks	39 _____	39 _____	39 _____	39 _____	39 _____
Low-fat/reduced-fat ice cream, frozen yogurt, or sherbet	40 _____	40 _____	40 _____	40 _____	40 _____
Regular ice cream, frozen yogurt, or sherbet	41 _____	41 _____	41 _____	41 _____	41 _____
Dried fruit (such as raisins or apricots)	42 _____	42 _____	42 _____	42 _____	42 _____
Canned fruit	43 _____	43 _____	43 _____	43 _____	43 _____
Fresh fruit	44 _____	44 _____	44 _____	44 _____	44 _____
Vegetables	45 _____	45 _____	45 _____	45 _____	45 _____
Other (*Specify*) _____	46 _____	46 _____	46 _____	46 _____	46 _____

FREQUENTLY ASKED QUESTIONS

What if my school does not have any vending machines or other food sources?

It is important that we have a record of all the schools included in the study. Even if you have no vending machines or other food sources to report on, please complete each form by filling in the top part of the form with information about yourself and the school name, and checking off "No" in the box on the front page. Fax the entire form back to us.

What if I can't complete these forms in the week you have specified?

Please call Annalee Kelly at (609) 799-3535 or email akelly@mathematica-mpr.com to let us know when we should expect the returned forms.

What if a food item could be counted or checked in more than one category?

It is important not to count or check the same item in more than one place on the forms. Try to determine which category most closely describes the item and use that one. If you are unsure how to classify an item, put it in one of the 'other' spaces and specify what the item is.

What if I can't tell which category to put a food or beverage in?

Some items might not clearly fit into one of the listed categories, especially if you can't see the label. In these cases, use one of the 'other' spaces and specify what the item is.

What exactly should be counted in vending machines?

We are interested in knowing how many different selections can be made from a vending machine, even if some of those selections are for the same item. So, for a vending machine where you can see the items offered, you should count the "slots" holding the items. If the same cookies are in three different slots, each would be counted separately, since there are three different selections that will each get you cookies. Your counts should be based on the item that is in the *front* position of a slot. Do not count items behind the front position of a slot, regardless of whether these items are the same or different from what is in the front position. If a slot has no items at all or no item in the front position, it should be counted as empty.

For vending machines where you cannot see the items or their slots, you should count the buttons used to select the items instead. Each button should be counted separately, even if more than one button purchases the same item. If a button is marked as sold-out, it should be counted the same as an empty slot, and not counted on the form as an available item.

What if there is more than one of the same vending machine?

It is important that *every* vending machine available to students during the school day be reported separately. Some machines may be identical. But others may have subtle differences. For instance, one may be inside the cafeteria, while the other is just outside the cafeteria. Or one "Coke machine" might have two juice selections while another has only one and an empty slot.

What if a vending machine is out of order, is awaiting restocking, or has some other unusual circumstance?

Please call Annalee Kelly at (609) 799-3535 or email akelly@mathematica-mpr.com to explain the situation and we will instruct you on how to proceed.

How can I tell the difference between a school store, snack bar, food cart/kiosk and fundraiser?

School Store: Sells pre-prepared or packaged food and beverages, as well as non-food items (like school supplies), but does not prepare or heat food; could be anywhere in the school, including within the cafeteria (or eating and seating area), but would still be run separately from the regular school food service.

Snack Bar: Prepares and/or heats foods to order (for example, sandwiches, hot dogs, French fries, etc.) separate from the regular cafeteria or food service area; located outside of the cafeteria (or eating and seating area); may include cafes, canteens, or concession stands.

Food Cart/Kiosk: Sells only pre-prepared or packaged food and beverages; does not prepare or heat foods to order or sell non-food items; located outside of the school cafeteria (or eating and seating area).

Fundraiser: Includes special sales such as bake sales, candy drives, or special pizza day to raise money for charity, field trips, band uniforms, or sending school teams to competitions.

If you are unsure of how to categorize a food or beverage source, please call Annalee Kelly at (609) 799-3535.

What if there is more than one food cart, snack bar, school store, or fundraiser?

In these situations, the form should be completed to include all items available from a given type of source, for example, all the items available from any of the food carts.

What if there was a recent fundraiser or bake sale, or one is coming up soon?

Only food sources that are available on the day you complete the forms should be included. Recent or future sources should not be included on the form.

Where will my check be sent?

Your check will be sent to your attention at the school. Please note that it does take several weeks to process after we receive your completed forms. If for some reason you want your check sent to a different location, please contact us with that information.

Who can I contact if I have other questions about these forms?

If you have any questions about completing or returning the forms, please call Annalee Kelly at (609) 799-3535 or email akelly@mathematica-mpr.com.

OMB Clearance Number: 0584-0527
Expiration Date: 09/30/2012

VENDING MACHINES (ENHANCED)

FALL 2009

SCHOOL NUTRITION DIETARY ASSESSMENT STUDY

Your Name: _____

Title: _____

Phone #: _____

School Name: _____

Date form was completed: _____

INSTRUCTIONS:

- PLEASE PROVIDE INFORMATION FOR EVERY VENDING MACHINE (ANYWHERE ON SCHOOL GROUNDS) THAT IS AVAILABLE TO STUDENTS DURING THE DAY, INCLUDING BEFORE AND AFTER SCHOOL.
- WHEN YOU ARE DONE REPORTING ON YOUR BEVERAGE MACHINES, PLEASE TURN TO SECTION B, PAGE 4 TO ENTER INFORMATION ABOUT ANY SNACK MACHINES.
- IF YOUR SCHOOL CONTAINS MORE THAN 25 BEVERAGE MACHINES OR MORE THAN 10 SNACK MACHINES, PLEASE CALL ANNALEE KELLY AT (609) 799-3535.

A. BEVERAGE MACHINES

		Beverage Machine 1	Beverage Machine 2	Beverage Machine 3	Beverage Machine 4	Beverage Machine 5
1. Machine Type →	Check here if machine contains beverages AND snacks	1 ☐	1 ☐	1 ☐	1 ☐	1 ☐
2. Location →	Check only one location for each beverage machine					
In cafeteria (including indoor and outdoor seating/eating area)		2 ☐	2 ☐	2 ☐	2 ☐	2 ☐
Outside but near (within 20 feet) cafeteria or seating/eating area		3 ☐	3 ☐	3 ☐	3 ☐	3 ☐
Elsewhere in school building(s)		4 ☐	4 ☐	4 ☐	4 ☐	4 ☐
Outside school building(s), but on school grounds (not in eating area)		5 ☐	5 ☐	5 ☐	5 ☐	5 ☐
3. Capacity/Size →	Count and enter the number of buttons OR front slots for each beverage machine					
If slots are not visible:	Enter # of selection buttons (not sold out)	6 _____	6 _____	6 _____	6 _____	6 _____
	Enter # of buttons that are sold out	7 _____	7 _____	7 _____	7 _____	7 _____
	Total # of buttons (available + sold out)	8 _____	8 _____	8 _____	8 _____	8 _____
If slots are visible:	Enter # of front slots that are filled	9 _____	9 _____	9 _____	9 _____	9 _____
	Enter # of front slots that are empty	10 _____	10 _____	10 _____	10 _____	10 _____
	Total # of front slots (filled + empty)	11 _____	11 _____	11 _____	11 _____	11 _____
4. Beverages →	Enter the number of front slots/buttons for each item					
Diet carbonated soft drink (diet soda/pop)		12 _____	12 _____	12 _____	12 _____	12 _____
Regular carbonated soft drink (regular soda/pop)		13 _____	13 _____	13 _____	13 _____	13 _____
Juice (100% fruit or vegetable juice)		14 _____	14 _____	14 _____	14 _____	14 _____
Juice drinks and other sweetened drinks (such as cranberry drink, fruit blends, Hi-C, lemonade, punch, iced tea)		15 _____	15 _____	15 _____	15 _____	15 _____
Energy and sports drinks (such as Gatorade, PowerAde, Red Bull, Vitamin Water)		16 _____	16 _____	16 _____	16 _____	16 _____
Bottled water (plain, flavored, or sparkling)		17 _____	17 _____	17 _____	17 _____	17 _____
Hot or cold chocolate drinks (such as Yoo-hoo; NOT chocolate milk)		18 _____	18 _____	18 _____	18 _____	18 _____
Flavored milk (such as chocolate or strawberry)		19 _____	19 _____	19 _____	19 _____	19 _____
Whole or reduced fat (2%) white milk		20 _____	20 _____	20 _____	20 _____	20 _____
Low-fat (1%) white milk		21 _____	21 _____	21 _____	21 _____	21 _____
Fat-free/skim white milk		23 _____	23 _____	23 _____	23 _____	23 _____
Other *(Specify)* _____		24 _____	24 _____	24 _____	24 _____	24 _____
Other *(Specify)* _____		25 _____	25 _____	25 _____	25 _____	25 _____

		Beverage Machine 6	Beverage Machine 7	Beverage Machine 8	Beverage Machine 9	Beverage Machine 10
1. Machine Type →	Check here if machine contains beverages AND snacks	1 ☐	1 ☐	1 ☐	1 ☐	1 ☐
2. Location →	Check only one location for each beverage machine					
In cafeteria (including indoor and outdoor seating/eating area)		2 ☐	2 ☐	2 ☐	2 ☐	2 ☐
Outside but near (within 20 feet) cafeteria or seating/eating area		3 ☐	3 ☐	3 ☐	3 ☐	3 ☐
Elsewhere in school building(s)		4 ☐	4 ☐	4 ☐	4 ☐	4 ☐
Outside school building(s), but on school grounds (not in eating area)		5 ☐	5 ☐	5 ☐	5 ☐	5 ☐
3. Capacity/Size →	Count and enter the number of buttons OR front slots for each beverage machine					
If slots are not visible:	Enter # of selection buttons (not sold out)	6 _____	6 _____	6 _____	6 _____	6 _____
	Enter # of buttons that are sold out	7 _____	7 _____	7 _____	7 _____	7 _____
	Total # of buttons (available + sold out)	8 _____	8 _____	8 _____	8 _____	8 _____
If slots are visible:	Enter # of front slots that are filled	9 _____	9 _____	9 _____	9 _____	9 _____
	Enter # of front slots that are empty	10 _____	10 _____	10 _____	10 _____	10 _____
	Total # of front slots (filled + empty)	11 _____	11 _____	11 _____	11 _____	11 _____
4. Beverages →	Enter the number of front slots/buttons for each item					
Diet carbonated soft drink (diet soda/pop)		12 _____	12 _____	12 _____	12 _____	12 _____
Regular carbonated soft drink (regular soda/pop)		13 _____	13 _____	13 _____	13 _____	13 _____
Juice (100% fruit or vegetable juice)		14 _____	14 _____	14 _____	14 _____	14 _____
Juice drinks and other sweetened drinks (such as cranberry drink, fruit blends, Hi-C, lemonade, punch, iced tea)		15 _____	15 _____	15 _____	15 _____	15 _____
Energy and sports drinks (such as Gatorade, PowerAde, Red Bull, Vitamin Water)		16 _____	16 _____	16 _____	16 _____	16 _____
Bottled water (plain, flavored, or sparkling)		17 _____	17 _____	17 _____	17 _____	17 _____
Hot or cold chocolate drinks (such as Yoo-hoo; NOT chocolate milk)		18 _____	18 _____	18 _____	18 _____	18 _____
Flavored milk (such as chocolate or strawberry)		19 _____	19 _____	19 _____	19 _____	19 _____
Whole or reduced fat (2%) white milk		20 _____	20 _____	20 _____	20 _____	20 _____
Low-fat (1%) white milk		21 _____	21 _____	21 _____	21 _____	21 _____
Fat-free/skim white milk		23 _____	23 _____	23 _____	23 _____	23 _____
Other *(Specify)* _____		24 _____	24 _____	24 _____	24 _____	24 _____
Other *(Specify)* _____		25 _____	25 _____	25 _____	25 _____	25 _____

A. BEVERAGE MACHINES (continued)

	Beverage Machine 11	Beverage Machine 12	Beverage Machine 13	Beverage Machine 14	Beverage Machine 15
1. Machine Type → Check here if machine contains beverages AND snacks	1 ☐	1 ☐	1 ☐	1 ☐	1 ☐
2. Location → Check only one location for each beverage machine					
In cafeteria (including indoor and outdoor seating/eating area)	2 ☐	2 ☐	2 ☐	2 ☐	2 ☐
Outside but near (within 20 feet) cafeteria or seating/eating area	3 ☐	3 ☐	3 ☐	3 ☐	3 ☐
Elsewhere in school building(s)	4 ☐	4 ☐	4 ☐	4 ☐	4 ☐
Outside school building(s), but on school grounds (not in eating area)	5 ☐	5 ☐	5 ☐	5 ☐	5 ☐
3. Capacity/Size → Count and enter the number of buttons OR front slots for each beverage machine					
If slots are not visible: Enter # of selection buttons (not sold out)	6 _____	6 _____	6 _____	6 _____	6 _____
Enter # of buttons that are sold out	7 _____	7 _____	7 _____	7 _____	7 _____
Total # of buttons (available + sold out)	8 _____	8 _____	8 _____	8 _____	8 _____
If slots are visible: Enter # of front slots that are filled	9 _____	9 _____	9 _____	9 _____	9 _____
Enter # of front slots that are empty	10 _____	10 _____	10 _____	10 _____	10 _____
Total # of front slots (filled + empty)	11 _____	11 _____	11 _____	11 _____	11 _____
4. Beverages → Enter the number of front slots/buttons for each item					
Diet carbonated soft drink (diet soda/pop)	12 _____	12 _____	12 _____	12 _____	12 _____
Regular carbonated soft drink (regular soda/pop)	13 _____	13 _____	13 _____	13 _____	13 _____
Juice (100% fruit or vegetable juice)	14 _____	14 _____	14 _____	14 _____	14 _____
Juice drinks and other sweetened drinks (such as cranberry drink, fruit blends, Hi-C, lemonade, punch, iced tea)	15 _____	15 _____	15 _____	15 _____	15 _____
Energy and sports drinks (such as Gatorade, PowerAde, Red Bull, Vitamin Water)	16 _____	16 _____	16 _____	16 _____	16 _____
Bottled water (plain, flavored, or sparkling)	17 _____	17 _____	17 _____	17 _____	17 _____
Hot or cold chocolate drinks (such as Yoo-hoo; NOT chocolate milk)	18 _____	18 _____	18 _____	18 _____	18 _____
Flavored milk (such as chocolate or strawberry)	19 _____	19 _____	19 _____	19 _____	19 _____
Whole or reduced fat (2%) white milk	20 _____	20 _____	20 _____	20 _____	20 _____
Low-fat (1%) white milk	21 _____	21 _____	21 _____	21 _____	21 _____
Fat-free/skim white milk	23 _____	23 _____	23 _____	23 _____	23 _____
Other *(Specify)* _____	24 _____	24 _____	24 _____	24 _____	24 _____
Other *(Specify)* _____	25 _____	25 _____	25 _____	25 _____	25 _____

	Beverage Machine 16	Beverage Machine 17	Beverage Machine 18	Beverage Machine 19	Beverage Machine 20
1. Machine Type → Check here if machine contains beverages AND snacks	1 ☐	1 ☐	1 ☐	1 ☐	1 ☐
2. Location → Check only one location for each beverage machine					
In cafeteria (including indoor and outdoor seating/eating area)	2 ☐	2 ☐	2 ☐	2 ☐	2 ☐
Outside but near (within 20 feet) cafeteria or seating/eating area	3 ☐	3 ☐	3 ☐	3 ☐	3 ☐
Elsewhere in school building(s)	4 ☐	4 ☐	4 ☐	4 ☐	4 ☐
Outside school building(s), but on school grounds (not in eating area)	5 ☐	5 ☐	5 ☐	5 ☐	5 ☐
3. Capacity/Size → Count and enter the number of buttons OR front slots for each beverage machine					
If slots are not visible: Enter # of selection buttons (not sold out)	6 _____	6 _____	6 _____	6 _____	6 _____
Enter # of buttons that are sold out	7 _____	7 _____	7 _____	7 _____	7 _____
Total # of buttons (available + sold out)	8 _____	8 _____	8 _____	8 _____	8 _____
If slots are visible: Enter # of front slots that are filled	9 _____	9 _____	9 _____	9 _____	9 _____
Enter # of front slots that are empty	10 _____	10 _____	10 _____	10 _____	10 _____
Total # of front slots (filled + empty)	11 _____	11 _____	11 _____	11 _____	11 _____
4. Beverages → Enter the number of front slots/buttons for each item					
Diet carbonated soft drink (diet soda/pop)	12 _____	12 _____	12 _____	12 _____	12 _____
Regular carbonated soft drink (regular soda/pop)	13 _____	13 _____	13 _____	13 _____	13 _____
Juice (100% fruit or vegetable juice)	14 _____	14 _____	14 _____	14 _____	14 _____
Juice drinks and other sweetened drinks (such as cranberry drink, fruit blends, Hi-C, lemonade, punch, iced tea)	15 _____	15 _____	15 _____	15 _____	15 _____
Energy and sports drinks (such as Gatorade, PowerAde, Red Bull, Vitamin Water)	16 _____	16 _____	16 _____	16 _____	16 _____
Bottled water (plain, flavored, or sparkling)	17 _____	17 _____	17 _____	17 _____	17 _____
Hot or cold chocolate drinks (such as Yoo-hoo; NOT chocolate milk)	18 _____	18 _____	18 _____	18 _____	18 _____
Flavored milk (such as chocolate or strawberry)	19 _____	19 _____	19 _____	19 _____	19 _____
Whole or reduced fat (2%) white milk	20 _____	20 _____	20 _____	20 _____	20 _____
Low-fat (1%) white milk	21 _____	21 _____	21 _____	21 _____	21 _____
Fat-free/skim white milk	23 _____	23 _____	23 _____	23 _____	23 _____
Other *(Specify)* _____	24 _____	24 _____	24 _____	24 _____	24 _____
Other *(Specify)* _____	25 _____	25 _____	25 _____	25 _____	25 _____

A. BEVERAGE MACHINES (continued)

	Beverage Machine 21	Beverage Machine 22	Beverage Machine 23	Beverage Machine 24	Beverage Machine 25
1. Machine Type → Check here if machine contains beverages AND snacks	1 ☐	1 ☐	1 ☐	1 ☐	1 ☐
2. Location → Check only one location for each beverage machine					
In cafeteria (including indoor and outdoor seating/eating area)	2 ☐	2 ☐	2 ☐	2 ☐	2 ☐
Outside but near (within 20 feet) cafeteria or seating/eating area	3 ☐	3 ☐	3 ☐	3 ☐	3 ☐
Elsewhere in school building(s)	4 ☐	4 ☐	4 ☐	4 ☐	4 ☐
Outside school building(s), but on school grounds (not in eating area)	5 ☐	5 ☐	5 ☐	5 ☐	5 ☐
3. Capacity/Size → Count and enter the number of buttons OR front slots for each beverage machine					
If slots are not visible: Enter # of selection buttons (not sold out)	6 _____	6 _____	6 _____	6 _____	6 _____
Enter # of buttons that are sold out	7 _____	7 _____	7 _____	7 _____	7 _____
Total # of buttons (available + sold out)	8 _____	8 _____	8 _____	8 _____	8 _____
If slots are visible: Enter # of front slots that are filled	9 _____	9 _____	9 _____	9 _____	9 _____
Enter # of front slots that are empty	10 _____	10 _____	10 _____	10 _____	10 _____
Total # of front slots (filled + empty)	11 _____	11 _____	11 _____	11 _____	11 _____
4. Beverages → Enter the number of front slots/buttons for each item					
Diet carbonated soft drink (diet soda/pop)	12 _____	12 _____	12 _____	12 _____	12 _____
Regular carbonated soft drink (regular soda/pop)	13 _____	13 _____	13 _____	13 _____	13 _____
Juice (100% fruit or vegetable juice)	14 _____	14 _____	14 _____	14 _____	14 _____
Juice drinks and other sweetened drinks (such as cranberry drink, fruit blends, Hi-C, lemonade, punch, iced tea)	15 _____	15 _____	15 _____	15 _____	15 _____
Energy and sports drinks (such as Gatorade, PowerAde, Red Bull, Vitamin Water)	16 _____	16 _____	16 _____	16 _____	16 _____
Bottled water (plain, flavored, or sparkling)	17 _____	17 _____	17 _____	17 _____	17 _____
Hot or cold chocolate drinks (such as Yoo-hoo; NOT chocolate milk)	18 _____	18 _____	18 _____	18 _____	18 _____
Flavored milk (such as chocolate or strawberry)	19 _____	19 _____	19 _____	19 _____	19 _____
Whole or reduced fat (2%) white milk	20 _____	20 _____	20 _____	20 _____	20 _____
Low-fat (1%) white milk	21 _____	21 _____	21 _____	21 _____	21 _____
Fat-free/skim white milk	23 _____	23 _____	23 _____	23 _____	23 _____
Other *(Specify)* _____	24 _____	24 _____	24 _____	24 _____	24 _____
Other *(Specify)* _____	25 _____	25 _____	25 _____	25 _____	25 _____

B. SNACK MACHINES

	Snack Machine 1	Snack Machine 2	Snack Machine 3	Snack Machine 4	Snack Machine 5
1. Machine Type → Check here if this is a continuation of a machine that also includes beverages	1 ☐	1 ☐	1 ☐	1 ☐	1 ☐
2. Location → Check only one location for each snack machine					
In cafeteria (including indoor and outdoor seating/eating area)	2 ☐	2 ☐	2 ☐	2 ☐	2 ☐
Outside but near (within 20 feet) cafeteria or seating/eating area	3 ☐	3 ☐	3 ☐	3 ☐	3 ☐
Elsewhere in school building(s)	4 ☐	4 ☐	4 ☐	4 ☐	4 ☐
Outside school building(s), but on school grounds (not in eating area)	5 ☐	5 ☐	5 ☐	5 ☐	5 ☐
3. Capacity/Size → Count and enter the number of front slots OR buttons for each snack machine					
If slots are not visible: Enter # of selection buttons (not sold out)	6 _____	6 _____	6 _____	6 _____	6 _____
Enter # of buttons that are sold out	7 _____	7 _____	7 _____	7 _____	7 _____
Total # of buttons (available + sold out)	8 _____	8 _____	8 _____	8 _____	8 _____
If slots are visible: Enter # of front slots that are filled	9 _____	9 _____	9 _____	9 _____	9 _____
Enter # of front slots that are empty	10 _____	10 _____	10 _____	10 _____	10 _____
Total # of front slots (filled + empty)	11 _____	11 _____	11 _____	11 _____	11 _____
4. Snacks → Enter the number of front slots/buttons for each item					
Low-fat/reduced-fat/baked chips (such as corn, potato, puffed cheese, tortilla, or snack mixes)	12 _____	12 _____	12 _____	12 _____	12 _____
Regular chips (such as corn, potato, puffed cheese, tortilla, or snack mixes)	13 _____	13 _____	13 _____	13 _____	13 _____
Pretzels	14 _____	14 _____	14 _____	14 _____	14 _____
Popcorn	15 _____	15 _____	15 _____	15 _____	15 _____
Cracker sandwiches with cheese or peanut butter	16 _____	16 _____	16 _____	16 _____	16 _____
Other types of crackers (including animal crackers)	17 _____	17 _____	17 _____	17 _____	17 _____
Low-fat/reduced-fat granola bars, cereal bars, or energy bars	18 _____	18 _____	18 _____	18 _____	18 _____
Regular granola bars, cereal bars, or energy bars	19 _____	19 _____	19 _____	19 _____	19 _____
Crispy rice bars or treats	20 _____	20 _____	20 _____	20 _____	20 _____
Candy	21 _____	21 _____	21 _____	21 _____	21 _____
Gum	22 _____	22 _____	22 _____	22 _____	22 _____
Nuts and/or seeds (such as almonds, peanuts, sunflower seeds, or trail mix)	23 _____	23 _____	23 _____	23 _____	23 _____
Fruit snacks (such as Fruit Roll-Ups or fruit leather)	24 _____	24 _____	24 _____	24 _____	24 _____
Meat snacks (such as jerky or pork rinds)	25 _____	25 _____	25 _____	25 _____	25 _____
Other (*Specify*) _____	26 _____	26 _____	26 _____	26 _____	26 _____
5. Baked Goods → Enter the number of front slots/buttons for each item					
Low-fat/reduced-fat cakes, cupcakes, or brownies	27 _____	27 _____	27 _____	27 _____	27 _____
Regular cakes, cupcakes, or brownies	28 _____	28 _____	28 _____	28 _____	28 _____
Low-fat pies, turnovers, or toaster pastries	29 _____	29 _____	29 _____	29 _____	29 _____
Regular pies, turnovers, or toaster pastries	30 _____	30 _____	30 _____	30 _____	30 _____
Doughnuts	31 _____	31 _____	31 _____	31 _____	31 _____
Low-fat cookies	32 _____	32 _____	32 _____	32 _____	32 _____
Regular cookies	33 _____	33 _____	33 _____	33 _____	33 _____
Bread, rolls, bagels, or tortillas	34 _____	34 _____	34 _____	34 _____	34 _____
Other (*Specify*)_____	35 _____	35 _____	35 _____	35 _____	35 _____
6. Other Foods → Enter the number of front slots/buttons for each item					
Yogurt	36 _____	36 _____	36 _____	36 _____	36 _____
Cheese	37 _____	37 _____	37 _____	37 _____	37 _____
Frozen fruit bars or popsicles	38 _____	38 _____	38 _____	38 _____	38 _____
Milkshakes, smoothies, or yogurt drinks	39 _____	39 _____	39 _____	39 _____	39 _____
Low-fat/reduced-fat ice cream, frozen yogurt, or sherbet	40 _____	40 _____	40 _____	40 _____	40 _____
Regular ice cream, frozen yogurt, or sherbet	41 _____	41 _____	41 _____	41 _____	41 _____
Dried fruit (such as raisins or apricots)	42 _____	42 _____	42 _____	42 _____	42 _____
Canned fruit	43 _____	43 _____	43 _____	43 _____	43 _____
Fresh fruit	44 _____	44 _____	44 _____	44 _____	44 _____
Vegetables	45 _____	45 _____	45 _____	45 _____	45 _____
Other (*Specify*) _____	46 _____	46 _____	46 _____	46 _____	46 _____

B. SNACK MACHINES (continued)

	Snack Machine 6	Snack Machine 7	Snack Machine 8	Snack Machine 9	Snack Machine 10
1. Machine Type → Check here if this is a continuation of a machine that also includes beverages	1 ☐	1 ☐	1 ☐	1 ☐	1 ☐
2. Location → Check only one location for each snack machine					
In cafeteria (including indoor and outdoor seating/eating area)	2 ☐	2 ☐	2 ☐	2 ☐	2 ☐
Outside but near (within 20 feet) cafeteria or seating/eating area	3 ☐	3 ☐	3 ☐	3 ☐	3 ☐
Elsewhere in school building(s)	4 ☐	4 ☐	4 ☐	4 ☐	4 ☐
Outside school building(s), but on school grounds (not in eating area)	5 ☐	5 ☐	5 ☐	5 ☐	5 ☐
3. Capacity/Size → Count and enter the number of front slots OR buttons for each snack machine					
If slots are not visible: Enter # of selection buttons (not sold out)	6 _____	6 _____	6 _____	6 _____	6 _____
Enter # of buttons that are sold out	7 _____	7 _____	7 _____	7 _____	7 _____
Total # of buttons (available + sold out)	8 _____	8 _____	8 _____	8 _____	8 _____
If slots are visible: Enter # of front slots that are filled	9 _____	9 _____	9 _____	9 _____	9 _____
Enter # of front slots that are empty	10 _____	10 _____	10 _____	10 _____	10 _____
Total # of front slots (filled + empty)	11 _____	11 _____	11 _____	11 _____	11 _____
4. Snacks → Enter the number of front slots/buttons for each item					
Low-fat/reduced-fat/baked chips (such as corn, potato, puffed cheese, tortilla, or snack mixes)	12 _____	12 _____	12 _____	12 _____	12 _____
Regular chips (such as corn, potato, puffed cheese, tortilla, or snack mixes)	13 _____	13 _____	13 _____	13 _____	13 _____
Pretzels	14 _____	14 _____	14 _____	14 _____	14 _____
Popcorn	15 _____	15 _____	15 _____	15 _____	15 _____
Cracker sandwiches with cheese or peanut butter	16 _____	16 _____	16 _____	16 _____	16 _____
Other types of crackers (including animal crackers)	17 _____	17 _____	17 _____	17 _____	17 _____
Low-fat/reduced-fat granola bars, cereal bars, or energy bars	18 _____	18 _____	18 _____	18 _____	18 _____
Regular granola bars, cereal bars, or energy bars	19 _____	19 _____	19 _____	19 _____	19 _____
Crispy rice bars or treats	20 _____	20 _____	20 _____	20 _____	20 _____
Candy	21 _____	21 _____	21 _____	21 _____	21 _____
Gum	22 _____	22 _____	22 _____	22 _____	22 _____
Nuts and/or seeds (such as almonds, peanuts, sunflower seeds, or trail mix)	23 _____	23 _____	23 _____	23 _____	23 _____
Fruit snacks (such as Fruit Roll-Ups or fruit leather)	24 _____	24 _____	24 _____	24 _____	24 _____
Meat snacks (such as jerky or pork rinds)	25 _____	25 _____	25 _____	25 _____	25 _____
Other (*Specify*) _____	26 _____	26 _____	26 _____	26 _____	26 _____
5. Baked Goods → Enter the number of front slots/buttons for each item					
Low-fat/reduced-fat cakes, cupcakes, or brownies	27 _____	27 _____	27 _____	27 _____	27 _____
Regular cakes, cupcakes, or brownies	28 _____	28 _____	28 _____	28 _____	28 _____
Low-fat pies, turnovers, or toaster pastries	29 _____	29 _____	29 _____	29 _____	29 _____
Regular pies, turnovers, or toaster pastries	30 _____	30 _____	30 _____	30 _____	30 _____
Doughnuts	31 _____	31 _____	31 _____	31 _____	31 _____
Low-fat cookies	32 _____	32 _____	32 _____	32 _____	32 _____
Regular cookies	33 _____	33 _____	33 _____	33 _____	33 _____
Bread, rolls, bagels, or tortillas	34 _____	34 _____	34 _____	34 _____	34 _____
Other (*Specify*)_____	35 _____	35 _____	35 _____	35 _____	35 _____
6. Other Foods → Enter the number of front slots/buttons for each item					
Yogurt	36 _____	36 _____	36 _____	36 _____	36 _____
Cheese	37 _____	37 _____	37 _____	37 _____	37 _____
Frozen fruit bars or popsicles	38 _____	38 _____	38 _____	38 _____	38 _____
Milkshakes, smoothies, or yogurt drinks	39 _____	39 _____	39 _____	39 _____	39 _____
Low-fat/reduced-fat ice cream, frozen yogurt, or sherbet	40 _____	40 _____	40 _____	40 _____	40 _____
Regular ice cream, frozen yogurt, or sherbet	41 _____	41 _____	41 _____	41 _____	41 _____
Dried fruit (such as raisins or apricots)	42 _____	42 _____	42 _____	42 _____	42 _____
Canned fruit	43 _____	43 _____	43 _____	43 _____	43 _____
Fresh fruit	44 _____	44 _____	44 _____	44 _____	44 _____
Vegetables	45 _____	45 _____	45 _____	45 _____	45 _____
Other (*Specify*) _____	46 _____	46 _____	46 _____	46 _____	46 _____

FREQUENTLY ASKED QUESTIONS

What if my school does not have any vending machines or other food sources?

It is important that we have a record of all the schools included in the study. Even if you have no vending machines or other food sources to report on, please complete each form by filling in the top part of the form with information about yourself and the school name, and checking off "No" in the box on the front page. Fax the entire form back to us.

What if I can't complete these forms in the week you have specified?

Please call Annalee Kelly at (609) 799-3535 or email akelly@mathematica-mpr.com to let us know when we should expect the returned forms.

What if a food item could be counted or checked in more than one category?

It is important not to count or check the same item in more than one place on the forms. Try to determine which category most closely describes the item and use that one. If you are unsure how to classify an item, put it in one of the 'other' spaces and specify what the item is.

What if I can't tell which category to put a food or beverage in?

Some items might not clearly fit into one of the listed categories, especially if you can't see the label. In these cases, use one of the 'other' spaces and specify what the item is.

What exactly should be counted in vending machines?

We are interested in knowing how many different selections can be made from a vending machine, even if some of those selections are for the same item. So, for a vending machine where you can see the items offered, you should count the "slots" holding the items. If the same cookies are in three different slots, each would be counted separately, since there are three different selections that will each get you cookies. Your counts should be based on the item that is in the *front* position of a slot. Do not count items behind the front position of a slot, regardless of whether these items are the same or different from what is in the front position. If a slot has no items at all or no item in the front position, it should be counted as empty.

For vending machines where you cannot see the items or their slots, you should count the buttons used to select the items instead. Each button should be counted separately, even if more than one button purchases the same item. If a button is marked as sold-out, it should be counted the same as an empty slot, and not counted on the form as an available item.

What if there is more than one of the same vending machine?

It is important that *every* vending machine available to students during the school day be reported separately. Some machines may be identical. But others may have subtle differences. For instance, one may be inside the cafeteria, while the other is just outside the cafeteria. Or one "Coke machine" might have two juice selections while another has only one and an empty slot.

What if a vending machine is out of order, is awaiting restocking, or has some other unusual circumstance?

Please call Annalee Kelly at (609) 799-3535 or email akelly@mathematica-mpr.com to explain the situation and we will instruct you on how to proceed.

How can I tell the difference between a school store, snack bar, food cart/kiosk and fundraiser?

School Store: Sells pre-prepared or packaged food and beverages, as well as non-food items (like school supplies), but does not prepare or heat food; could be anywhere in the school, including within the cafeteria (or eating and seating area), but would still be run separately from the regular school food service.

Snack Bar: Prepares and/or heats foods to order (for example, sandwiches, hot dogs, French fries, etc.) separate from the regular cafeteria or food service area; located outside of the cafeteria (or eating and seating area); may include cafes, canteens, or concession stands.

Food Cart/Kiosk: Sells only pre-prepared or packaged food and beverages; does not prepare or heat foods to order or sell non-food items; located outside of the school cafeteria (or eating and seating area).

Fundraiser: Includes special sales such as bake sales, candy drives, or special pizza day to raise money for charity, field trips, band uniforms, or sending school teams to competitions.

If you are unsure of how to categorize a food or beverage source, please call Annalee Kelly at (609) 799-3535.

What if there is more than one food cart, snack bar, school store, or fundraiser?

In these situations, the form should be completed to include all items available from a given type of source, for example, all the items available from any of the food carts.

What if there was a recent fundraiser or bake sale, or one is coming up soon?

Only food sources that are available on the day you complete the forms should be included. Recent or future sources should not be included on the form.

Where will my check be sent?

Your check will be sent to your attention at the school. Please note that it does take several weeks to process after we receive your completed forms. If for some reason you want your check sent to a different location, please contact us with that information.

Who can I contact if I have other questions about these forms?

If you have any questions about completing or returning the forms, please call Annalee Kelly at (609) 799-3535 or email akelly@mathematica-mpr.com.

OMB Clearance Number: 0584-0527
Expiration Date: 09/30/2012

SCHOOL NUTRITION DIETARY ASSESSMENT STUDY
Other Sources of Foods/Beverages

Please return completed form by fax to (609) 799-0005 (Attn: Annalee Kelly)

Your Name: _____ Title: _____

Phone #: _____ Date form completed: _____

School Name: _____

Besides vending machines and food sold in the cafeteria, does your school have any other sources of food or beverages available to students during the day, including before or after school?

☐ Yes → Continue ☐ No → Thank you. You are done. Please fax form to number shown above.

Instructions: Please provide the following information for every source of foods/beverages your school has other than vending machines and the cafeteria. If there is more than one of a given food source (for example, if there are multiple food carts) you can check more than one location per column and check off all the foods and beverages that are available in *any* of those locations.

	School Store	**Snack Bar**	**Food Cart/Kiosk**	**Fundraiser**	**Other (Specify)**
	Sells items in addition to foods/beverages; does not prepare/heat food	Sells only foods/beverages; prepares/heats some foods	Sells only foods/beverages; does not prepare/heat foods to order	Bake sale, candy drive, special pizza day, etc.	_____
1. Location → Check the location(s) of each source					
In cafeteria (including indoor and outdoor seating/eating area)	1 ☐	NA	NA	1 ☐	NA
Outside but near (within 20 feet) cafeteria or seating/eating area	2 ☐	2 ☐	2 ☐	2 ☐	2 ☐
Elsewhere in school building(s)	3 ☐	3 ☐	3 ☐	3 ☐	3 ☐
Outside school building(s), but on school grounds (not in seating/eating area)	4 ☐	4 ☐	4 ☐	4 ☐	4 ☐
2. Beverages → Check items available from each source					
Diet carbonated soft drink (diet soda/pop)	5 ☐	5 ☐	5 ☐	5 ☐	5 ☐
Regular carbonated soft drink (regular soda/pop)	6 ☐	6 ☐	6 ☐	6 ☐	6 ☐
Juice (100% fruit or vegetable juice)	7 ☐	7 ☐	7 ☐	7 ☐	7 ☐
Juice drinks and other sweetened drinks (such as cranberry drink, fruit blends, Hi-C, lemonade, punch, iced tea)	8 ☐	8 ☐	8 ☐	8 ☐	8 ☐
Energy and sports drinks (such as Gatorade, PowerAde, Red Bull, Vitamin Water)	9 ☐	9 ☐	9 ☐	9 ☐	9 ☐
Bottled water (plain, flavored, or sparkling)	10 ☐	10 ☐	10 ☐	10 ☐	10 ☐
Hot or cold chocolate drinks (such as Yoo-hoo; NOT chocolate milk)	11 ☐	11 ☐	11 ☐	11 ☐	11 ☐
Flavored milk (such as chocolate or strawberry)	12 ☐	12 ☐	12 ☐	12 ☐	12 ☐
Whole or reduced fat (2%) white milk	13 ☐	13 ☐	13 ☐	13 ☐	13 ☐
Low-fat (1%) white milk	14 ☐	14 ☐	14 ☐	14 ☐	14 ☐
Fat-free/skim white milk	15 ☐	15 ☐	15 ☐	15 ☐	15 ☐
Other *(Specify)* _____	16 ☐	16 ☐	16 ☐	16 ☐	16 ☐
Other *(Specify)* _____	17 ☐	17 ☐	17 ☐	17 ☐	17 ☐

	School Store	Snack Bar	Food Cart/Kiosk	Fundraiser	Other (Specify)
	Sells items in addition to foods/beverages; does not prepare/heat food	Sells only foods/beverages; prepares/heats some foods	Sells only foods/beverages; does not prepare/heat foods to order	Bake sale, candy drive, special pizza day, etc.	_____
3. Snacks → Check items available from each source					
Low-fat/reduced-fat/baked chips (such as corn, potato, puffed cheese, tortilla, or snack mixes)	18 ☐	18 ☐	18 ☐	18 ☐	18 ☐
Regular chips (such as corn, potato, puffed cheese, tortilla, or snack mixes)	19 ☐	19 ☐	19 ☐	19 ☐	19 ☐
Pretzels	20 ☐	20 ☐	20 ☐	20 ☐	20 ☐
Popcorn	21 ☐	21 ☐	21 ☐	21 ☐	21 ☐
Cracker sandwiches with cheese or peanut butter	22 ☐	22 ☐	22 ☐	22 ☐	22 ☐
Other types of crackers (including animal crackers)	23 ☐	23 ☐	23 ☐	23 ☐	23 ☐
Low-fat/reduced-fat granola bars, cereal bars, or energy bars	24 ☐	24 ☐	24 ☐	24 ☐	24 ☐
Regular granola bars, cereal bars, or energy bars	25 ☐	25 ☐	25 ☐	25 ☐	25 ☐
Crispy rice bars or treats	26 ☐	26 ☐	26 ☐	26 ☐	26 ☐
Candy	27 ☐	27 ☐	27 ☐	27 ☐	27 ☐
Gum	28 ☐	28 ☐	28 ☐	28 ☐	28 ☐
Nuts and/or seeds (such as almonds, peanuts, sunflower seeds, or trail mix)	29 ☐	29 ☐	29 ☐	29 ☐	29 ☐
Fruit snacks (such as Fruit Roll-Ups or fruit leather)	30 ☐	30 ☐	30 ☐	30 ☐	30 ☐
Meat snacks (such as jerky or pork rinds)	31 ☐	31 ☐	31 ☐	31 ☐	31 ☐
Other (*Specify*) _____	32 ☐	32 ☐	32 ☐	32 ☐	32 ☐
4. Baked Goods → Check items available from each source					
Low-fat/reduced-fat cakes, cupcakes, or brownies	33 ☐	33 ☐	33 ☐	33 ☐	33 ☐
Regular cakes, cupcakes, or brownies	34 ☐	34 ☐	34 ☐	34 ☐	34 ☐
Low-fat pies, turnovers, or toaster pastries	35 ☐	35 ☐	35 ☐	35 ☐	35 ☐
Regular pies, turnovers, or toaster pastries	36 ☐	36 ☐	36 ☐	36 ☐	36 ☐
Doughnuts	37 ☐	37 ☐	37 ☐	37 ☐	37 ☐
Low-fat cookies	38 ☐	38 ☐	38 ☐	38 ☐	38 ☐
Regular cookies	39 ☐	39 ☐	39 ☐	39 ☐	39 ☐
Bread, rolls, bagels, or tortillas	40 ☐	40 ☐	40 ☐	40 ☐	40 ☐
Other (*Specify*) _____	41 ☐	41 ☐	41 ☐	41 ☐	41 ☐
5. Other Foods → Check items available from each source					
Yogurt	42 ☐	42 ☐	42 ☐	42 ☐	42 ☐
Cheese	43 ☐	43 ☐	43 ☐	43 ☐	43 ☐
Frozen fruit bars or popsicles	44 ☐	44 ☐	44 ☐	44 ☐	44 ☐
Milkshakes, smoothies, or yogurt drinks	45 ☐	45 ☐	45 ☐	45 ☐	45 ☐
Low-fat/reduced-fat ice cream, frozen yogurt, or sherbet	46 ☐	46 ☐	46 ☐	46 ☐	46 ☐
Regular ice cream, frozen yogurt, or sherbet	47 ☐	47 ☐	47 ☐	47 ☐	47 ☐
Dried fruit (such as raisins or apricots)	48 ☐	48 ☐	48 ☐	48 ☐	48 ☐
Canned fruit	49 ☐	49 ☐	49 ☐	49 ☐	49 ☐
Fresh fruit	50 ☐	50 ☐	50 ☐	50 ☐	50 ☐
Vegetables	51 ☐	51 ☐	51 ☐	51 ☐	51 ☐
Other (*Specify*) _____	52 ☐	52 ☐	52 ☐	52 ☐	52 ☐

School Nutrition Dietary Assessment Study (SNDA-IV)

Training

If you have any questions, call us toll free at (888) 633-8329

Your Role

- Complete two forms for your school about:
    - Vending machines
    - Other sources of foods and beverages
- Complete both within one week of receiving your e-mail
- Fax completed forms back to Mathematica

Goals Of This Training

- Introduce the two data collection forms
- Clarify the types of information to be collected
- Provide guidance about how to complete the forms

Please have the forms in front of you as you go through the rest of this document!

Vending Machine Form

Vending Machine Form

- Collects information about every machine available to students during the school day (including before or after school), including:
    - Location
    - Type of machine
    - Capacity/size of machine
    - Contents (types of items available)
- Separate sections for:
    - Beverage machines
    - Snack machines

Filling in the Form

Each column should contain information for only one vending machine

3. Capacity/Size → Count and enter the number of buttons or front slots for each beverage machine						
If slots are not visible:	Enter # of selection buttons (not sold out)	6 | 5 |	6 | |	6 | |	6 | |	6 | |
	Enter # of buttons that are sold out	7 | 1 |	7 | |	7 | |	7 | |	7 | |
	Total # of buttons (available + sold out)	8 | 6 |	8 | |	8 | |	8 | |	8 | |
If slots are visible:	Enter # of front slots that are filled	9 | |	9 | |	9 | |	9 | |	9 | |
	Enter # of front slots that are empty	10 | |	10 | |	10 | |	10 | |	10 | |
	Total # of front slots (filled + empty)	11 | |	11 | |	11 | |	11 | |	11 | |
4. Beverages → Enter the number of front slots/buttons for each item						
Diet carbonated soft drink (diet soda/pop)		12 | 2 |	12 | |	12 | |	12 | |	12 | |
Regular carbonated soft drink (regular soda/pop)		13 | 3 |	13 | |	13 | |	13 | |	13 | |
Juice (100% fruit or vegetable juice)		14 | |	14 | |	14 | |	14 | |	14 | |

Vending Machine Locations

For each machine, choose only ONE location:

In Cafeteria

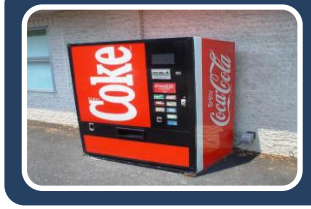
- Includes the entire cafeteria area, including the serving lines and the seating/eating area

Outside but Near (within 20 feet) Cafeteria or Seating/Eating Area

- Adjacent to the cafeteria area (within 20 feet) but outside of the cafeteria walls

Elsewhere in School Building(s)

- Any other location that is accessible to students and inside the walls of the school building(s)

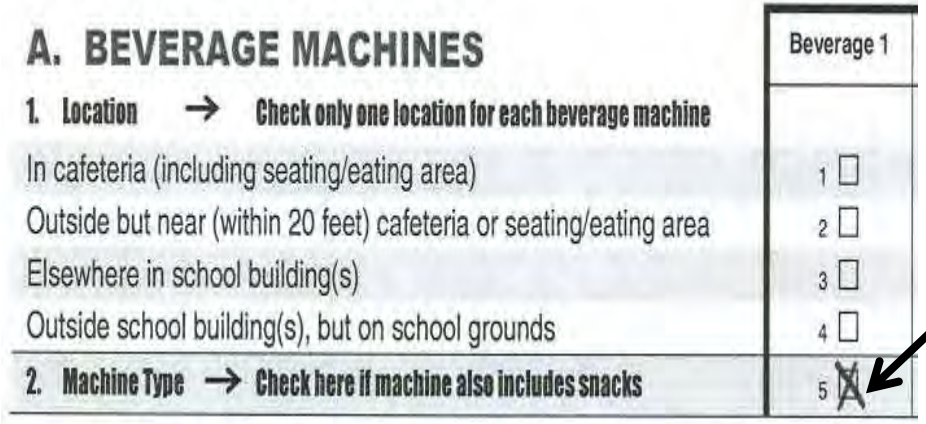


Outside School Building(s) but on School Grounds

- Areas on school grounds, but outside of the walls of the building(s)

Vending Machine Type

(Use only for combination beverage and snack machines)



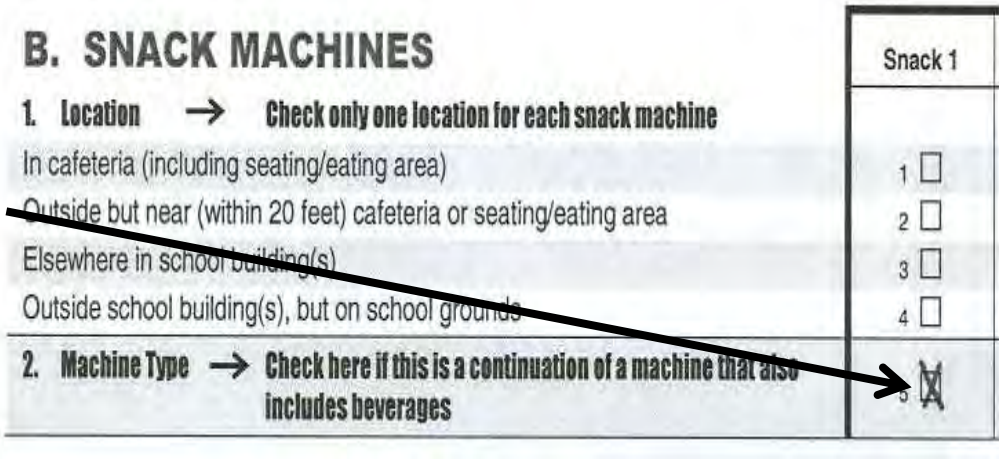
A. BEVERAGE MACHINES	Beverage 1
1. Location → Check only one location for each beverage machine	
In cafeteria (including seating/eating area)	1 ☐
Outside but near (within 20 feet) cafeteria or seating/eating area	2 ☐
Elsewhere in school building(s)	3 ☐
Outside school building(s), but on school grounds	4 ☐
2. Machine Type → Check here if machine also includes snacks	5 ☒

Step 1:

In Section A (Beverage Machines), check the box for "Machine Type" to indicate that the machine includes both beverages and snacks. Then record information about the beverages in the machine.

Step 2:

In Section B (Snack Machines), check the box for "Machine Type" to indicate that the machine includes both beverages and snacks. Then record information about the snacks in the machine.

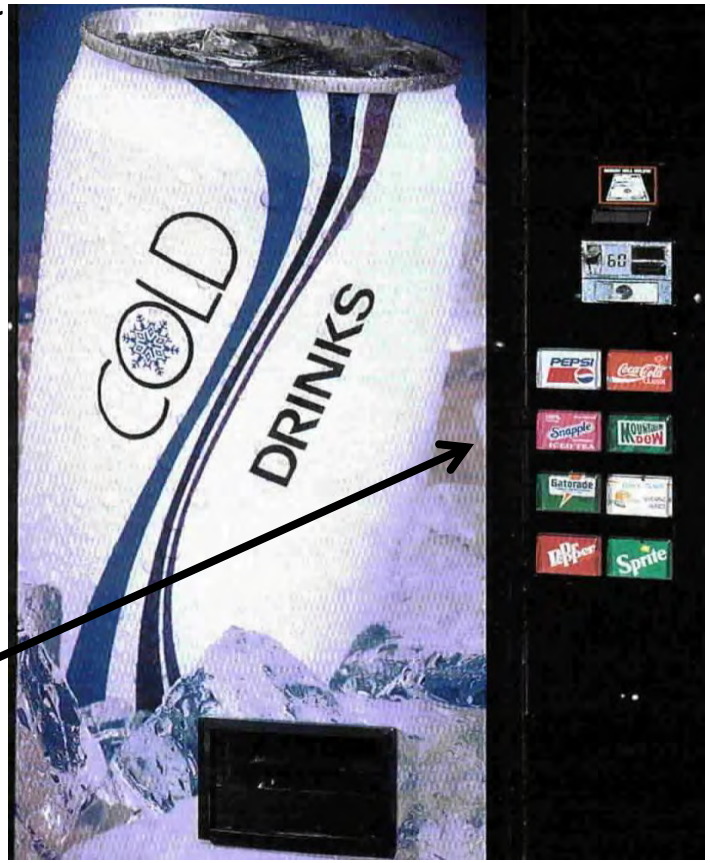


B. SNACK MACHINES	Snack 1
1. Location → Check only one location for each snack machine	
In cafeteria (including seating/eating area)	1 ☐
Outside but near (within 20 feet) cafeteria or seating/eating area	2 ☐
Elsewhere in school building(s)	3 ☐
Outside school building(s), but on school grounds	4 ☐
2. Machine Type → Check here if this is a continuation of a machine that also includes beverages	5 ☒

Vending Machine Capacity/Size: If Slots Are Not Visible

- Enter the number of buttons that are NOT sold out
- Enter the number of buttons that ARE sold out
- Total the number available and sold out buttons

3. Capacity/Size → Count and enter the number of buttons or front slots for each beverage machine			
If slots are not visible:	Enter # of selection buttons (not sold out)	6	8
	Enter # of buttons that are sold out	7	0
	Total # of buttons (available + sold out)	8	8
If slots are visible:	Enter # of front slots that are filled	9	
	Enter # of front slots that are empty	10	
	Total # of front slots (filled + empty)	11	



This machine has eight buttons.
None are sold out.

Vending Machine Capacity/Size: If Slots Are Visible

- Count the number of front slots that are filled
- Count the number of front slots that are empty
- Total the number of filled and empty slots

3. Capacity/Size →	Count and enter the number of buttons or front slots for each beverage machine					
If slots are not visible:	Enter # of selection buttons (not sold out)	6	6	6	6	6
	Enter # of buttons that are sold out	7	7	7	7	7
	Total # of buttons (available + sold out)	8	8	8	8	8
If slots are visible:	Enter # of front slots that are filled	9 9	9	9	9	9
	Enter # of front slots that are empty	10 0	10	10		
	Total # of front slots (filled + empty)	11 9	11	11		

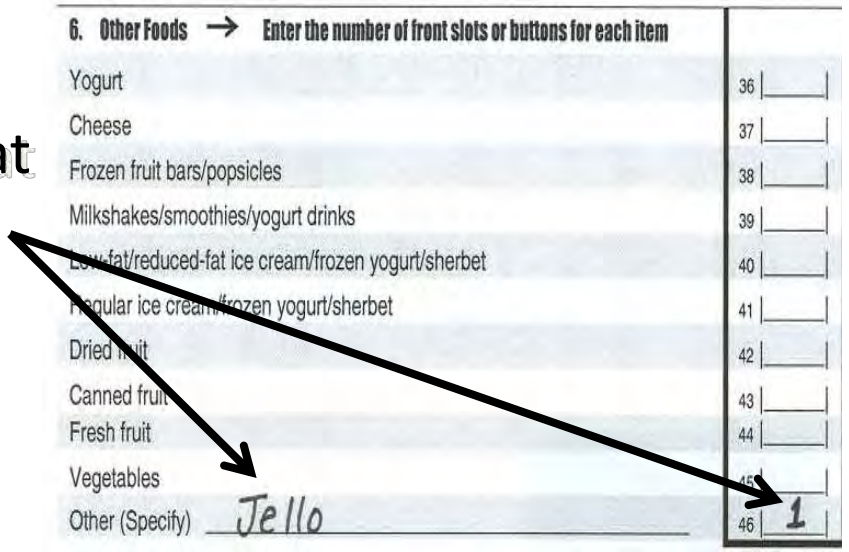
This machine has nine front slots. None of the front slots are empty.

Vending Machine Contents

- Record the number of slots (or buttons) dedicated to each type of food or beverage

- For machines with visible slots, base your counts on the item in the front slot

- If you observe any items that are not on the list, record them on the lines marked "Other (Specify)"



6. Other Foods → Enter the number of front slots or buttons for each item	
Yogurt	36
Cheese	37
Frozen fruit bars/popsicles	38
Milkshakes/smoothies/yogurt drinks	39
Low-fat/reduced-fat ice cream/frozen yogurt/sherbet	40
Regular ice cream/frozen yogurt/sherbet	41
Dried fruit	42
Canned fruit	43
Fresh fruit	44
Vegetables	
Other (Specify) Jello	46 1

Example #1 - Beverages

4. Beverages → Enter the number of front slots/buttons for each item		
Diet carbonated soft drink (diet soda/pop)	12	
Regular carbonated soft drink (regular soda/pop)	13	4
Juice (100% fruit or vegetable juice)	14	1
Juice drinks and other sweetened drinks (such as cranberry drink, fruit blends, Hi-C, lemonade, punch, iced tea)	15	
Energy and sports drinks (such as Gatorade, PowerAde, Red Bull, vitamin water)	16	
Bottled water (plain, flavored, or sparkling)	17	1
Hot or cold chocolate drinks (such as yoo-hoo; NOT chocolate milk)	18	
Whole or reduced fat (2%) white milk	19	
Low-fat (1%) white milk	20	
Fat-free/skim white milk	21	
Flavored milk	22	
Other *(Specify)* _____	23	
Other *(Specify)* _____	24	

Example #2 - Snacks

4. Snacks → Enter the number of front slots or buttons for each item		
Low-fat /reduced-fat/baked chips (such as corn, potato, puffed cheese, tortilla, or snack mixes)	12	1
Regular chips (such as corn, potato, puffed cheese, tortilla, or snack mixes)	13	3
Pretzels	14	1
Popcorn	15	
Cracker sandwiches with cheese or peanut butter	16	
Other types of crackers (including animal crackers)	17	
Low-fat /reduced-fat granola, cereal, or energy bars	18	
Regular granola, cereal, or energy bars	19	
Crispy rice bars/treats	20	
Candy	21	3
Gum	22	
Nuts and/or seeds (such as almonds, peanuts, sunflower seeds or trail mix)	23	
Fruit snacks (such as Fruit Roll-Ups or fruit leather)	24	
Meat snacks (such as jerky or pork rinds)	25	
Other (specify) _____	26	

Other Sources of Foods/Beverages Form

Other Sources of Foods/Beverages Form

- Documents the availability of:
  - School stores
  - Snack bars outside the cafeteria
  - Food carts/kiosks outside the cafeteria
  - Fundraisers
  - Other sources
- For each available source, documents:
  - Location(s)
  - Types of items available
- Vending machines and food served in the cafeteria should NOT be included on this form

Filling in the Form

Note that the column headings on this form refer to specific types of food sources, not individual vending machines

	School Store	Snack Bar	Food Cart/Kiosk	Fundraiser	Other (Specify)
	Sells items in addition to foods/beverages; does not prepare or heat food	Sells only foods/beverages; prepares/heats some foods	Sells only foods/beverages; does not prepare or heat foods to order	Bake sale, candy drive, special pizza day, etc.	
3. Snacks → Check items available from each source					
Low-fat /reduced-fat/baked chips (such as corn, potato, puffed cheese, tortilla, or snack mixes)	18 ☒	18 ☐	18 ☐	18 ☐	18 ☐
Regular chips (such as corn, potato, puffed cheese, tortilla, or snack mixes)	19 ☒	19 ☐			9 ☐
Pretzels	20 ☒				0 ☐
Popcorn	21 ☐	21 ☐			1 ☐
Cracker sandwiches with cheese or peanut butter	22 ☒	22 ☐			2 ☐
Other types of crackers (including animal crackers)	23 ☐	23 ☐	23 ☐	23 ☐	23 ☐

Also note that you do not need to enter counts, simply check the box if the item is available

Other Food Source Locations

School Store

-Sells other items in addition to food and beverages

-Does not prepare or heat food

-May be located in the cafeteria

Snack Bar

-Sells only food and beverages

-Prepares or heats some foods

-Includes canteens and cafes

-Located outside of the cafeteria

Food Cart/Kiosk

-Contains only food and beverages

-Does not prepare or heat foods to order

-Contains already prepared and pre-packaged food

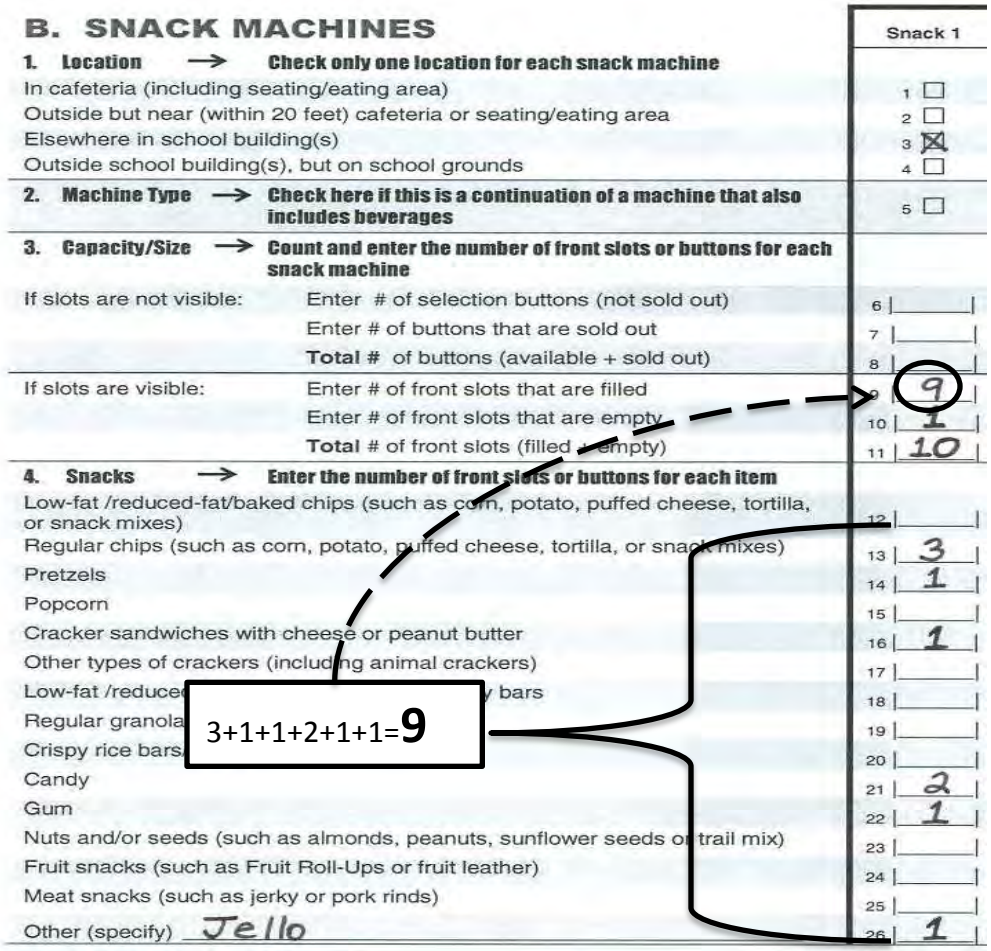
-Located outside of the cafeteria

Fundraisers

-Includes bake sales, candy drives, or other sales that raise money for special school needs or charity

-May be sold inside of the cafeteria

Before You Return Your Forms



B. SNACK MACHINES

		Snack 1
1. Location → Check only one location for each snack machine		
In cafeteria (including seating/eating area)		1 ☐
Outside but near (within 20 feet) cafeteria or seating/eating area		2 ☐
Elsewhere in school building(s)		3 ☒
Outside school building(s), but on school grounds		4 ☐
2. Machine Type → Check here if this is a continuation of a machine that also includes beverages		5 ☐
3. Capacity/Size → Count and enter the number of front slots or buttons for each snack machine		
If slots are not visible:	Enter # of selection buttons (not sold out)	6
	Enter # of buttons that are sold out	7
	Total # of buttons (available + sold out)	8
If slots are visible:	Enter # of front slots that are filled	9 (9)
	Enter # of front slots that are empty	10 1
	Total # of front slots (filled + empty)	11 10
4. Snacks → Enter the number of front slots or buttons for each item		
Low-fat /reduced-fat/baked chips (such as corn, potato, puffed cheese, tortilla, or snack mixes)		12
Regular chips (such as corn, potato, puffed cheese, tortilla, or snack mixes)		13 3
Pretzels		14 1
Popcorn		15
Cracker sandwiches with cheese or peanut butter		16 1
Other types of crackers (including animal crackers)		17
Low-fat /reduce[illegible] bars		18
Regular granola		19
Crispy rice bars		20
Candy		21 2
Gum		22 1
Nuts and/or seeds (such as almonds, peanuts, sunflower seeds or trail mix)		23
Fruit snacks (such as Fruit Roll-Ups or fruit leather)		24
Meat snacks (such as jerky or pork rinds)		25
Other (specify) Jello		26 1

3+1+1+2+1+1=**9**

✓Carefully review all of your entries on both forms to be sure they are complete and accurate

✓Check that the sum of items in each vending machine matches your entry for “the # of front slots that are filled”

✓Be sure you have filled in your name and other important contact information

Returning Your Completed Forms

*Please complete your forms within one week of receiving your e-mail

*Remember to return both forms even if there are no vending machines or other food sources in your school

Please return your forms by fax to:
(877) 733-8250
Attention: Amanda Kern

If you do not have access to a fax machine, please mail your forms to:

Amanda Kern

Mathematica Policy Research

P.O. Box 2393

Princeton, NJ 08540-2393

Thank you very much!