

APPENDIX 0

SAMPLE TABLE SHELLS

School Nutrition Dietary Assessment Study IV

(OMB No.: 0584-0527)

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TABLE O.1

CHARACTERISTICS OF PUBLIC SCHOOL FOOD AUTHORITIES (SFAs)
 PARTICIPATING IN THE NSLP AND THE SBP AND
 OFFERING REIMBURSABLE AFTERSCHOOL SNACKS

Percentage of SFAs	Participating in the NSLP	Participating in the SBP	Offering Reimbursable Snacks
Child Poverty Rate			
Low (less than 30 percent)			
Higher (30 percent or more)			
Urbanicity			
Primarily serves as a central city of MSA			
Serves as MSA but not primarily its central city			
Does not serve as MSA			
Enrollment			
5,000 or fewer			
More than 5,000			
Enrollment Growth between 2000 and 2005			
Negative (decline of xx percent)			
Low (from none to less than xx percent)			
Higher (xx percent or more)			
Number of Schools			
1-2 schools			
3-5 schools			
6-7 schools			
8+ schools			
District Includes Charter Schools			

Source: School Nutrition Dietary Assessment-IV and U.S. Department of Education's Common Core of Data.

TABLE O.2

PREVALENCE OF DIFFERENT TYPES OF BEVERAGES IN VENDING MACHINES

Types of Beverages	Elementary Schools	Middle Schools	High Schools	All Schools
	Percentage of Items Offered ^a			
Diet carbonated soft drink (diet soda)				
Regular carbonated soft drink (regular soda)				
Juice (100% fruit or vegetable juice)				
Juice drinks and other sweetened drinks (cranberry drink, fruit blends, Hi-C, lemonade, punch, iced tea)				
Bottled water (flavored or sparkling)				
Energy and sports drinks (Gatorade, PowerAde, Red Bull)				
Hot or cold chocolate drinks (NOT chocolate milk)				
Whole or reduced fat (2%) white milk				
Low-fat (1%) white milk				
Fat-free/skim white milk				
Flavored milk				
Other				

Source: School Nutrition Dietary Assessment-IV Vending Machine Checklist.

^a Percentage of filled front slots, in machines where slots are visible, or buttons that were not sold out.

TABLE O.3

PREVALENCE OF DIFFERENT TYPES OF FOOD IN VENDING MACHINES

Types of Food	Elementary Schools	Middle Schools	High Schools	All Schools
	Percentage of Items Offered ^a			
Snacks				
Low-fat /reduced-fat/baked chips (corn, potato, puffed cheese, tortilla, snack mixes)				
Regular chips (corn, potato, puffed cheese, tortilla, snack mixes)				
Pretzels				
Popcorn				
Cracker sandwiches with cheese or peanut butter				
Other types of crackers (including animal crackers)				
Low-fat /reduced-fat granola, cereal, or energy bars				
Regular granola, cereal, or energy bars				
Crispy rice bars/treats				
Candy				
Gum				
Nuts and/or seeds (almonds, peanuts, sunflower seeds, trail mix)				
Fruit roll-up/fruit snacks				
Meat snacks (jerky, pork rinds)				
Other				
Baked Goods				
Low-fat/reduced-fat cakes/cupcakes/muffins				
Regular cakes/cupcakes/muffins				
Low-fat pies/turnovers/toaster pastries				
Regular pies/turnovers/toaster pastries				
Doughnuts				
Low-fat cookies				
Regular cookies				
Bread, rolls, bagels				
Other				
Other Foods				
Yogurt				
Cheese				
Frozen fruit bars/popsicles				
Milkshakes/smoothies/yogurt drinks				
Low-fat/reduced-fat ice cream/frozen yogurt/sherbet				
Regular ice cream/frozen yogurt/sherbet				
Dried fruit				
Canned fruit				
Fresh fruit				
Vegetables				
Other				

Source: School Nutrition Dietary Assessment-IV Vending Machine Checklist.

^a Percentage of filled front slots, in machines where slots are visible, or buttons that were not sold out.

TABLE O.4

PROPORTION OF SCHOOLS OFFERING NSLP LUNCHES THAT SATISFIED EACH, ALL, AND SOME OF THE SMI NUTRIENT STANDARDS AND OTHER NUTRITION BENCHMARKS

	Standard/ Recommendation	Elementary Schools	Middle Schools	High Schools	All Schools
SMI Nutrient Standards					
Food energy	33% of 1989 REA				
Protein	33% of 1989 RDA				
Vitamin A ^a	33% of 1989 RDA				
Vitamin C	33% of 1989 RDA				
Calcium	33% of 1989 RDA				
Iron	33% of 1989 RDA				
Percentage of energy from total fat	≤ 30%				
Percentage of energy from saturated fat	< 10%				
Other Nutrition Benchmarks					
Cholesterol	< 100 mg ^b				
Sodium	< 767 mg ^b				
Dietary fiber	33% of target ^c				
Percentage of energy from total fat	25% - 35% ^d				
Combinations of Standards					
All SMI standards					
SMI standards for all RDA nutrients ^e					
SMI standards for all RDA nutrients ^e and SMI standard for saturated fat					
SMI standards for all RDA nutrients, ^e SMI standard for saturated fat, and AMDR standard for total fat					
Updated standards for all RDA nutrients, ^f SMI standard for saturated fat, and AMDR standard for total fat					

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 NSLP.

^aIn retinol equivalents (RE).

^b2005 Dietary Guidelines for Americans recommendation; not SMI standard. Benchmarks reflect one-third of suggested maximum daily intake.

TABLE O.4 (continued)

^cThe daily target for dietary fiber is based on one-third of the Dietary Guidelines for Americans 2005 recommendation for daily fiber intake of 14 g/1,000 calories.

^dAcceptable Macronutrient Distribution Range defined in the Dietary Reference Intakes and used in the Dietary Guidelines for Americans 2005.

^eIncludes protein, vitamin A, vitamin C, calcium and iron.

^fUpdated to reflect RDA values included in the Dietary Reference Intakes.

SMI = School Meals Initiative for Healthy Children; REA = Recommended Energy Allowance; RDA = Recommended Dietary Allowance; AMDR = Acceptable Macronutrient Distribution Range.

*Difference between elementary and middle schools is significantly different from zero at the .05 level.

**Difference between middle and high schools is significantly different from zero at the .05 level.

***Difference between elementary and high schools is significantly different from zero at the .05 level.

TABLE O.5

PROPORTION OF SCHOOLS *OFFERING* NSLP LUNCHES THAT MET THE MINIMUM ENERGY AND NUTRIENT STANDARDS
FOR REQUIRED GRADE GROUPS

Meal Pattern Type	Grades K-3		Grades K-6		Grade 4-12		Grades 7-12	
	Traditional Enhanced (Option) NSMP/ANSMP (Option)		Enhanced NSMP/ANSMP		Traditional		Enhanced NSMP/ANSMP Traditional (Option)	
	Standard	% Meeting	Standard	% Meeting	Standard	% Meeting	Standard	% Meeting
Food energy								
Protein								
Vitamin A ^a								
Vitamin C								
Calcium								
Iron								
Number of Schools								

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 NSLP.

^aIn retinol equivalents (RE).

TABLE O.6

PROPORTION OF SCHOOLS OFFERING NSLP LUNCHES THAT MET THE MINIMUM ENERGY AND NUTRIENT STANDARDS FOR OPTIONAL AGE GROUPS

Meal Pattern Type	Ages 3-6		Ages 7-10		Ages 11-13		Ages 14 and Older	
	NSMP/ANSMP		NSMP/ANSMP		NSMP/ANSMP		NSMP/ANSMP	
	Standard	% Meeting	Standard	% Meeting	Standard	% Meeting	Standard	% Meeting
Food energy								
Protein								
Vitamin A ^a								
Vitamin C								
Calcium								
Iron								
Number of Schools								

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 NSLP.

^aIn retinol equivalents (RE).

TABLE O.7

MYPYRAMID EQUIVALENTS IN LUNCHES OFFERED, ELEMENTARY SCHOOLS

Calorie Levels ^a												
1,200			1,400			1,600			1,800			
Males	n/a		6 to 8 years			9 to 10 years			11 to 12 years			
Females	6 to 7 years		8 to 10 years			11 to 12 years			n/a			
	Rec Amount ^b	Mean Amount ^t	Percentag e Rec ^c	Rec Amount ^b	Mean Amount ^t	Percentag e Rec ^c	Rec Amount ^b	Mean Amount ^t	Percentag e Rec ^c	Rec Amount ^b	Mean Amount ^t	Percentag e Rec ^c
Fruits												
Vegetables												
Dark green												
Orange												
Legumes												
Starchy												
Other												
Grains												
Meats and Beans												
Milk												
Oils												
Discretionary Calories												

^aMyPyramid assigns individuals to a calorie level based on their sex, age, and activity level. Sedentary activity levels are used to identify calorie levels.

^bRecommended daily amount of food from each group within calorie level with the exception of the vegetable subgroups. Vegetable subgroups are recommended amounts per week.

^cPercent of recommended daily amount from each group within calorie level

TABLE O.8

MEAN AMOUNT OF MYPYRAMID FOOD GROUPS AND HEALTHY EATING INDEX COMPONENTS,
IN AVERAGE LUNCH OFFERED, BY SCHOOL TYPE

	Rec Amount per 1,000 calories ^a	Elementary Schools		Middle Schools		High Schools		All Schools	
		Mean Amount	Percentage Rec	Mean Amount	Percentage Rec	Mean Amount	Percentage Rec	Mean Amount	Percentage Rec
Total Fruit	≥ 0.8 cup								
Whole Fruit (not juice)	≥ 0.4 cup								
Total Vegetables	≥ 1.1 cup								
Dark green and Orange Vegetables and Legumes	≥ 0.4 cup								
Total Grains	≥ 3.0 oz								
Whole Grains	≥ 1.5 oz								
Milk	≥ 1.3 cup								
Meat and Beans	≥ 2.5 oz								
Oils	≥ 12 gm								
Saturated Fat	≤ 7% of total energy								
Sodium	≤ 0.7 gm								
SoFAAS	≤ 20% of total energy								

^aRecommended amounts for HEI-2005 components are based on recommendations found in MyPyramid and were created using a density approach, expressed per 1,000 calories. The lowest amounts for achieving the maximum score for each component are used as the standard.

SoFAAS = Solid fat, alcohol, and added sugar

TABLE O.9
MEAN FOOD ENERGY AND NUTRIENT CONTENT OF NSLP LUNCHESES SERVED TO
STUDENTS IN SY 1998–1999, SY 2004–2005, AND SY 2009–2010

	SY 2009–2010 (SNDA-IV)		SY 2004–2005 (SNDA-III)		SY 1998–1999 (SNDA-II)	
	Mean	SE	Mean	SE	Mean	SE
ELEMENTARY SCHOOLS						
Food energy (calories)			676	8.3	695	6.9
Total fat (g)			25	0.5	26	0.3
Saturated fat (g)			8	0.1	9	0.2
Carbohydrate (g)			88	1.3	89	1.1
Protein (g)			28	0.3	29	0.2
Percentage of energy from total fat (%)			32.9	0.4	33.1	0.3
Percentage of energy from saturated fat (%)			10.8	0.1	11.9	0.1
Vitamin A (mcg RE)			324	10.0	437	15.7
Vitamin C (mg)			22	1.0	27	1.3
Calcium (mg)			483	6.7	478	4.0
Iron (mg)			4.3	0.1	4.4	0.1
Cholesterol (mg)			58	1.2	65	0.9
Sodium (mg)			1,278	22.3	1,259	15.3
Fiber (g/1,000 kcal)			6	0.1	na	na
Number of Schools			145		398	
SECONDARY SCHOOLS^a						
Food energy (calories)			765	9.9	724	5.5
Total fat (g)			31	0.7	28	0.3
Saturated fat (g)			9	0.2	10	0.1
Carbohydrate (g)			96	1.3	91	0.9
Protein (g)			29	0.3	30	0.2
Percentage of energy from total fat (%)			35.5	0.4	34.5	0.2
Percentage of energy from saturated fat (%)			11.1	0.1	12.1	0.1
Vitamin A (mcg RE)			306	9.4	390	10.1
Vitamin C (mg)			26	1.1	29	0.8
Calcium (mg)			468	6.4	475	3.9
Iron (mg)			4.7	0.1	4.7	0.0
Cholesterol (mg)			63	1.0	68	1.0
Sodium (mg)			1,470	26.5	1,382	14.5
Fiber (g/1,000 kcal)			9	0.1	na	Na
Number of Schools			252		677	

Sources: School Nutrition Dietary Assessment Study-IV, Menu Survey, SY 2009–2010 (tabulations prepared by Mathematica Policy Research, Inc., weighted to be representative of all public schools offering the NSLP); SNDA-III, Menu Survey, SY 2004–2005 (Gordon et al. 2007, Tables VIII.3, D-VI.5, F-VI.1), and SNDA-II, Menu Survey, SY 1998–1999 (Fox et al. 2001, Exhibit A.1).

SY = school year; SE = standard error; RE = Retinol equivalents; na = not available.

^a Includes middle schools and high schools.

*Difference between SY 2009–2010 and SY 2004–2005 is significantly different from zero at the .05 level.

TABLE O.10

PROPORTION OF SCHOOLS SERVING NSLP LUNCHES IN SY 2009-2010, SY 2004-2005, AND SY 1998-1999 THAT SATISFIED SMI NUTRIENT STANDARDS AND RELATED BENCHMARKS

	NSLP Standard/ Recommendatio n	SY 2009-2010 (SNDA-IV)		SY 2004-2005 (SNDA-III)		SY 1998-1999 (SNDA-II)	
		Mean	SE	Mean	SE	Mean	SE
ELEMENTARY SCHOOLS							
Food energy (calories)	33% of 1989 REA			60	4.8	68	4.8
Protein	33% of 1989 RDA			100	0.0	100	0.0
Vitamin A	33% of 1989 RDA			91	2.5	98	2.5
Vitamin C	33% of 1989 RDA			75	4.6	86	4.6
Calcium	33% of 1989 RDA			98	1.2	100	1.2
Iron	33% of 1989 RDA			96	1.8	93	1.8
Percentage of energy from total fat	≤ 30%			25.6	4.44	21.0	4.44
Percentage of energy from saturated fat	< 10%			33.7	4.71	15.0	4.71
Cholesterol	< 100 mg			99	0.6	99	0.6
Sodium	< 800 mg			1	0.6	1	0.6
Number of Schools				398		145	
SECONDARY SCHOOLS^a							
Food energy (calories)	33% of 1989 REA			30	4.4	20	4.4
Protein	33% of 1989 RDA			100	0.0	100	0.0
Vitamin A	33% of 1989 RDA			40	4.9	65	4.9
Vitamin C	33% of 1989 RDA			71	4.3	79	4.3
Calcium	33% of 1989 RDA			82	3.1	86	3.1
Iron	33% of 1989 RDA			61	4.5	60	4.5
Percentage of energy from total fat	≤ 30%			12.1	2.83	14.0	2.83
Percentage of energy from saturated fat	< 10%			24.4	3.85	13.0	3.85
Cholesterol	< 100 mg			100	0.5	96	0.5
Sodium	< 800 mg			0	0.2	1	0.2
Number of Schools				252		677	

Sources: School Nutrition Dietary Assessment Study-IV, Menu Survey, SY 2009-2010 (tabulations prepared by Mathematica Policy Research, Inc., weighted to be representative of all public schools offering the NSLP); SNDA-III, Menu Survey, SY 2004-2005 (Gordon et al. 2007, Table VIII.1), and SNDA-II, Menu Survey, SY 1998-1999 (Fox et al. 2001, Exhibits 3.5, 3.7 and A.4).

SY = school year; SE = standard error; SMI = School Meals Initiative for Healthy Children; REA = Recommended Energy Allowance; RDA = Recommended Dietary Allowance.

^a Includes middle schools and high schools.

*Difference between SY 2009-2010 and SY 2004-2005 is significantly different from zero at the .05 level.

TABLE O.11

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 Energy from Total Fat			
No more than 30%		79	
30.1 – 34.0%		16	
34.1 – 38.0%		3	
More than 38.0%		2	
Percentage of Energy from Saturated Fat			
Less than 10%		90	
10.1 – 12.0%		10	
12.1 – 14.0%		0	
More than 14.0%		0	
Percentage of Energy from Carbohydrate			
Less than 45%		0	
45-55%		27	
More than 55%		73	
Cholesterol			
Less than 100 mg		100	
100 mg or more		0	
Sodium			
800 mg or less		14	
801 – 1,000 mg		33	
More than 1,000 mg		53	
Number of Schools		145	

Sources: School Nutrition Dietary Assessment Study-IV, Menu Survey, SY 2009-2010. Tabulations prepared by Mathematica Policy Research, Inc. are weighted to be representative of all public schools offering the NSLP.

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.