APPENDIX F

SUPPLEMENTAL MEAL SERVICE TABLES

TABLE F.1

SELECTED MEAL CHARACTERISTICS AT SCHOOL- AND NONSCHOOL-SPONSORED SITES

	Percentage of Sites				Percentage of Meals Served			
	School	SE	Nonschool	SE	School	SE	Nonschool	SE
Meal Service Arrangement[a] (n = 161)								
Meals Served in a Serving Line/Food Pick-Up Line								
Variety of food	24.4	(5.95)	2.5	(1.10)	35.2	(9.17)	4.4	(2.34)
Unitized meal	60.4	(9.36)	53.5	(6.64)	50.7	(9.52)	49.9	(7.10)
Meals Served to Seated Children								
Variety of food	2.4	(2.05)	1.1	(0.67)	2.7	(1.97)	13.5	(7.83)
Unitized meal	21.0	(7.94)	40.7	(6.49)	23.9	(9.76)	39.9	(5.83)
Meals Served to Children as They Arrive	27.8	(7.98)	12.8	(4.46)	17.3	(7.09)	12.6	(4.48)
Meals Served to Children Dispersed Throughout the Site	7.8	(3.76)	2.1	(1.99)	8.2	(3.75)	2.3	(1.77)
Sites Serving Meals								
Indoors	81.2	(5.22)	70.4	(6.91)	86.3	(5.54)	78.3	(5.41)
Outdoors	17.6	(5.26)	25.4	(6.81)	10.9	(5.15)	16.8	(4.66)
Indoors and Outdoors	1.2	(1.20)	4.2	(2.59)	2.8	(2.73)	5.0	(2.51)
Sites Where Children Assist with Meal Preparation or Meal Service	2.5	(1.98)	11.9	(4.59)	2.8	(1.86)	10.1	(3.54)

TABLE F.1 (*continued*)

	Percentage of Sites				Percentage of Meals Served			
	School	SE	Nonschool	SE	School	SE	Nonschool	SE
Sites with On-Site Drinking Water Available	61.7	(7.93)	44.4	(9.98)	70.2	(5.85)	54.7	(10.99)
Sites Serving Water with Meals	5.3	(2.92)	5.2	(2.59)	7.1	(3.68)	5.6	(2.36)
Sites with a Share Box Present at Any Meal	36.4	(7.29)	51.6	(6.37)	31.8	(8.18)	45.4	(6.60)
Sites Where These Meals or Meal Components Are Carried Off Site (n = 152):								
None	92.7	(3.17)	80.0	(6.47)	93.5	(3.06)	88.5	(3.82)
Whole Meals	3.2	(2.87)	3.0	(2.11)	3.3	(2.95)	1.8	(1.18)
Fruits and/or Vegetables Only	2.8	(1.85)	9.5	(6.39)	1.4	(0.90)	3.4	(2.42)
Other Components	1.3	(1.08)	7.5	(3.70)	1.7	(1.30)	6.3	(3.38)
Sample Size	**79**	—	**83**	—	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of sites and meals served nationally.

[a]Multiple answers allowed, so total of percentages may exceed 100 percent.

SE = standard error.

TABLE F.2

HANDLING AND STORAGE OF FOOD AT INDOOR AND OUTDOOR SITES

	Percentage of Sites				Percentage of Meals Served			
	Indoor	SE	Outdoor	SE	Indoor	SE	Outdoor	SE
Food Safety and Handling								
Sites with On-Site Facilities for Hand-Washing (n = 155)	82.5	(4.46)	65.3	(12.00)	83.7	(3.93)	63.6	(13.18)
Sites Where Gloves Are Available for Staff Who Handle Food	51.3	(6.65)	30.4	(11.00)	69.3	(7.13)	44.2	(14.59)
Sites Where All Staff Who Handle and Serve Food Wear Gloves (n = 158)	41.3	(5.57)	25.1	(9.55)	50.3	(7.73)	33.5	(10.24)
Number of Minutes Food Sat Out Before It Was Served (n = 159)								
0	2.6	(1.82)	10.0	(5.83)	1.7	(1.14)	13.7	(9.06)
1 to 15	65.6	(5.54)	52.0	(12.03)	66.7	(6.44)	50.4	(14.39)
16 to 30	16.1	(4.70)	18.0	(9.68)	19.2	(6.30)	10.5	(6.48)
3 to 60	3.2	(2.42)	7.0	(6.79)	1.3	(0.90)	12.6	(11.42)
>60	3.1	(2.87)	5.2	(4.32)	1.0	(0.69)	4.4	(3.67)
Food out when interviewer arrived[a]	9.5	(3.01)	7.9	(6.05)	10.2	(3.21)	8.4	(6.79)
Food Storage								
Sites with On-Site Refrigerator	93.1**	(3.53)	31.7	(11.30)	96.6**	(1.79)	35.3	(15.44)
Sites with On-Site Cooler	63.9	(6.86)	69.0	(10.89)	68.6	(5.64)	53.5	(10.92)
Sites with On-Site Freezer	73.4**	(5.52)	29.1	(10.86)	86.8**	(3.30)	34.0	(15.67)
Sample Size	**133**	**—**	**23**	**—**	**133**	**—**	**23**	**—**

TABLE F.2 *(continued)*

SOURCE: SPSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of sites and meals served nationally. The table does not show six sites that were considered to be both indoor sites and outdoor sites.

[a]As described in Appendix A, interviewers were instructed to arrive at least 30 minutes before breakfast, and 1 hour to 1 hour 30 minutes before lunch. For 9 percent of the meal observations, however, interviewers arrived later because they had difficulty finding the SFSP meal location, or because the meal service had started earlier than scheduled.

SE = standard error.

**Significantly different from outdoor sites at the .01 level, *t*-test.

TABLE F.3

MEAL PATTERN COMPONENTS SERVED BY SCHOOL SPONSORS AT BREAKFAST AND LUNCH
(Percentage of Meals Observed)

	Component Present in SFSP Meal Pattern Amount[a]	Standard Error	Component Present, Not in SFSP Meal Pattern Amount[a]	Standard Error	Component Not Present	Standard Error
Breakfast						
Milk	98.2	(1.06)	0.1	(0.10)	1.8	(1.04)
Fruit and/or vegetable	88.2	(7.07)	10.6	(7.03)	1.3	(0.60)
Bread/bread alternate	95.7	(2.13)	4.1	(2.11)	0.2	(0.17)
Meat/meat alternate[b]	28.5	(9.54)	n.a.	n.a.	71.5	(9.54)
Sample Size[c]	**369**	—	—	—	—	—
Lunch						
Milk[d]	93.4	(2.29)	0.3	(0.20)	6.3	(2.29)
Fruit and/or vegetable	90.9	(3.52)	8.5	(3.26)	0.7	(0.39)
Bread/bread alternate	96.0	(1.77)	3.9	(1.76)	0.1	(0.08)
Meat/meat alternate	71.0	(6.22)	28.9	(6.21)	0.1	(0.08)
Sample Size[e]	**540**	—	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of meals served nationally.

[a]As defined by SFSP meal pattern guidelines.

[b]At breakfast, the meat/meat alternative component is optional. This table reflects whether a meat or a meat alternative component was present, but not whether it was present in the suggested amount.

TABLE F.3 *(continued)*

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[c]Total number of meals observed at breakfast at 54 sites.

[d]Includes kosher meals, where sites may have been exempt from serving milk. Fewer than 1 percent of nonschool sites and fewer than 2 percent of school sites visited at lunch were considered kosher sites, where a milk exemption was likely.

[e]Represents total number of meals observed at lunch at 78 sites.

n.a. = not applicable.

TABLE F.4

MEAL PATTERN COMPONENTS SERVED AT NON-OVS AND OVS SCHOOL-SPONSORED LUNCHES
(Percentage of Lunches Observed)

	Component Present in SFSP Meal Pattern Amount[a]	Standard Error	Component Present, Not in SFSP Meal Pattern Amount[a]	Standard Error	Component Not Present	Standard Error
Non-OVS Lunches						
Milk[b]	91.4	(4.34)	0.4	(0.38)	8.2	(4.38)
Fruit and/or vegetable	96.1	(1.99)	3.9	(1.99)	0	(—)
Bread/bread alternate	97.0	(2.37)	3.0	(2.37)	0	(—)
Meat/meat alternate	64.6	(10.24)	35.4	(10.24)	0	(—)
Sample Size[c]	**210**	—	—	—	—	—
OVS Lunches						
Milk[b]	95.1	(1.50)	0.2	(0.19)	4.7	(1.47)
Fruit and/or vegetable	86.3	(6.31)	12.5	(5.80)	1.2	(0.76)
Bread/bread alternate	95.1	(2.49)	4.7	(2.47)	0.2	(0.16)
Meat/meat alternate	76.7	(6.39)	23.1	(6.36)	0.2	(0.16)
Sample Size[d]	**330**	—	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of lunches served nationally.

[a]As defined by SFSP meal pattern guidelines.

[b]Includes kosher meals, where sites may have been exempt from serving milk. Fewer than 2 percent of school sites visited at lunch were considered kosher sites, where a milk exemption was likely.

TABLE F.4 *(continued)*

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[c]Total number of meals observed at non-OVS lunches at 36 sites.

[d]Total number of meals observed at OVS lunches at 42 sites.

n.a. = not applicable; OVS = offer versus serve.

TABLE F.5

MEAN ENERGY AND NUTRIENTS SERVED AT SFSP BREAKFASTS AND COMPARISON WITH RDAs AT SCHOOL- AND NONSCHOOL-SPONSORED SITES

	School				Nonschool			
	Mean	SE	Mean as Percentage of Total RDA for 4 to 8 Year Olds	Mean as Percentage of Total RDA for 9 to 13 Year Olds	Mean	SE	Mean as Percentage of Total RDA for 4 to 8 Year Olds	Mean as Percentage of Total RDA for 9 to 13 Year Olds
Energy (kcal)	412	(39.5)	21[a]	21[a]	441	(33.0)	22[a]	22[a]
Protein (g)	14.7	(1.27)	53[a]	53[a]	15.8	(1.61)	56[a]	56[a]
Total Fat (% kcal)	27.0	(2.06)	n.a.	n.a.	22.3	(2.09)	n.a.	n.a.
Saturated Fat (% kcal)	11.3	(0.33)	n.a.	n.a.	10.2	(0.78)	n.a.	n.a.
Carbohydrate (% kcal)	58.6	(1.91)	n.a.	n.a.	63.8	(2.24)	n.a.	n.a.
Vitamin A (RE)	310	(26.7)	78[b]	52[b]	353	(51.2)	88[b]	59[b]
Vitamin C (mg)	34	(4.3)	136	76	44	(9.0)	176	98
Calcium (mg)	386	(17.7)	48[c]	30[c]	368	(20.6)	46[c]	28[c]
Iron (mg)	4.1	(0.43)	41	51	4.4	(0.81)	44	55
Sodium (mg)	513	(61.0)	n.a.	n.a.	572	(104.3)	n.a.	n.a.
Cholesterol (mg)	52	(12.1)	n.a.	n.a.	55	(13.1)	n.a.	n.a.
Dietary Fiber (g)	1.9*	(0.19)	n.a.	n.a.	3.1	(0.51)	n.a.	n.a.
Sample Size[d]	**369**	—	—	—	**187**	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of breakfasts served nationally.

[a]Value represents one-fourth of the 1989 RDA for children aged 7 to 10 years.

[b]Value represents the upper bound, as the mean is expressed as Retinol Equivalents (REs), and the RDA is expressed as Retinol Activity Equivalents. See Appendix E for a detailed discussion.

TABLE F.5 *(continued)*

[c]Value represents the percentage of the Adequate Intake (AI) of calcium. The AI is used as the recommended standard because an RDA is not available.

[d]Total number of plates observed at 54 school-sponsored sites and 31 nonschool-sponsored sites.

n.a. = not applicable; RDA = Recommended Dietary Allowance; SE = standard error.

*Significantly different from nonschool meals at the .05 level, chi-squared test.

TABLE F.6

MEAN AND DISTRIBUTION OF ENERGY AND KEY NUTRIENTS SERVED ON A SINGLE DAY AT BREAKFAST AT SCHOOL-SPONSORED SITES

			Nutrition Standard[a]		Percentile				
	Mean	SE	4 to 8 Years	9 to 13 Years	10th	25th	50th	75th	90th
Energy (kcal)	412	(39.5)	500[b]	500[b]	251	277	402	500	597
Protein (g)	14.7	(1.27)	7[b]	7[b]	9.7	10.4	12.0	16.6	24.5
Total Fat (% kcal)	27.0	(2.06)	≤30	≤30	17.7	20.5	26.0	32.6	42.6
Saturated Fat (% kcal)	11.3	(0.33)	<10	<10	6.6	8.8	10.9	14.4	15.9
Carbohydrate (% kcal)	58.6	(1.91)	>55	>55	44.6	51.8	61.6	63.4	70.3
Vitamin A (RE)	310	(26.7)	100	150	139	191	328	383	467
Vitamin C (mg)	34	(4.3)	6.25	11.25	7	12	41	46	56
Calcium (mg)	386	(17.7)	200[c]	325[c]	317	334	346	429	514
Iron (mg)	4.1	(0.43)	2.5	2.0	1.8	2.5	4.0	5.8	6.3
Sodium (mg)	513	(61.0)	≤600	≤600	280	308	401	561	1,027
Cholesterol (mg)	52	(12.1)	≤75	≤75	14	18	29	51	96
Dietary Fiber (g)	1.9	(0.19)	2-3	3.5-4.5	0.9	1.2	1.8	2.2	2.9
Sample Size	**369**	—	—	—	—	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of breakfasts served nationally. Based on 369 plates observed at 54 sites.

[a]One-fourth of the RDA for energy and nutrients; Dietary Guidelines for fat and saturated fat densities; National Research Council recommendation for carbohydrate density, sodium, and cholesterol; and American Health Foundation for fiber.

[b]Value represents one-fourth of the 1989 RDA for children aged 7 to 10 years.

TABLE F.6 *(continued)*

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[c]Value represents the percentage of the Adequate Intake (AI) of calcium. The AI is used as the recommended standard because an RDA is not available.

RDA = Recommended Dietary Allowance; SE = standard error.

TABLE F.7

DISTRIBUTION OF ENERGY AND KEY NUTRIENTS SERVED ON A SINGLE DAY AT BREAKFAST AT NONSCHOOL-SPONSORED SITES

			Nutrition Standard[a]		Percentile				
	Mean	SE	4 to 8 Years	9 to 13 Years	10th	25th	50th	75th	90th
Energy (kcal)	441	(33.0)	500[b]	500[b]	256	287	407	524	639
Protein (g)	15.8	(1.61)	7[b]	7[b]	9.6	9.9	15.1	16.2	27.5
Total Fat (% kcal)	22.3	(2.09)	≤30	≤30	9.9	16.9	19.4	27.9	35.6
Saturated Fat (% kcal)	10.2	(0.78)	<10	<10	5.3	7.9	10.1	12.1	15.0
Carbohydrate (% kcal)	63.8	(2.24)	>55	>55	47.0	60.0	65.8	72.3	76.0
Vitamin A (RE)	353	(51.2)	100	150	142	265	296	395	707
Vitamin C (mg)	44	(9.0)	6.25	11.25	4	12	26	54	90
Calcium (mg)	368	(20.6)	200[c]	325[c]	300	312	349	474	492
Iron (mg)	4.4	(0.81)	2.5	2.0	1.5	1.7	3.4	5.3	10.3
Sodium (mg)	572	(104.3)	≤600	≤600	211	215	475	820	1,152
Cholesterol (mg)	55	(13.1)	≤75	≤75	14	18	23	36	73
Dietary Fiber (g)	3.1	(0.51)	2-3	3.5-4.5	0.7	1.6	3.0	4.0	5.7
Sample Size	**187**	—	—	—	—	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of breakfasts served nationally. Based on 187 plates observed at 31 sites.

[a]One-fourth of the RDA for energy and nutrients; Dietary Guidelines for fat and saturated fat densities; National Research Council recommendation for carbohydrate density, sodium, and cholesterol; and American Health Foundation for fiber.

[b]Value represents one-fourth of the 1989 RDA for children aged 7 to 10 years.

TABLE F.7 *(continued)*

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[c]Value represents the percentage of the Adequate Intake (AI) of calcium. The AI is used as the recommended standard because an RDA is not available.

RDA = Recommended Dietary Allowance; SE = standard error.

TABLE F.8

MEAN ENERGY AND KEY NUTRIENTS SERVED AT SFSP BREAKFASTS AND COMPARISON WITH RDAs AT VENDED AND NONVENDED SITES

	Vended				Nonvended			
	Mean	SE	Mean as Percentage of Total RDA for 4 to 8 Year Olds	Mean as Percentage of Total RDA for 9 to 13 Year Olds	Mean	SE	Mean as Percentage of Total RDA for 4 to 8 Year Olds	Mean as Percentage of Total RDA for 9 to 13 Year Olds
Energy (kcal)	359	(35.5)	18[a]	18[a]	440	(34.3)	22[a]	22[a]
Protein (g)	12.2*	(1.23)	44[a]	44[a]	15.9	(1.26)	57[a]	57[a]
Total fat (% kcal)	17.8**	(2.57)	n.a.	n.a.	26.8	(1.61)	n.a.	n.a.
Saturated fat (% kcal)	8.6*	(1.14)	n.a.	n.a.	11.4	(0.29)	n.a.	n.a.
Carbohydrate (% kcal)	68.9**	(2.32)	n.a.	n.a.	58.8	(1.63)	n.a.	n.a.
Vitamin A (RE)	267*	(25.7)	67[b]	45[b]	342	(30.6)	86[b]	57[b]
Vitamin C (mg)	46	(13.0)	184	102	36	(5.2)	144	80
Calcium (mg)	363	(40.3)	45[c]	28[c]	382	(14.0)	48[c]	29[c]
Iron (mg)	2.6**	(0.60)	26	33	4.6	(0.40)	46	58
Sodium (mg)	286**	(37.9)	n.a.	n.a.	597	(69.6)	n.a.	n.a.
Cholesterol (mg)	25**	(4.9)	n.a.	n.a.	60	(10.8)	n.a.	n.a.
Dietary Fiber (g)	2.4	(0.49)	n.a.	n.a.	2.4	(0.36)	n.a.	n.a.
Sample Size[d]	**98**	—	—	—	**458**	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of breakfasts served nationally.

[a]Value represents one-fourth of the 1989 RDA for children aged 7 to 10 years.

TABLE F.8 *(continued)*

[b]Value represents the upper bound, as the mean is expressed as Retinol Equivalents (REs), and the RDA is expressed as Retinol Activity Equivalents. See Appendix E for a detailed discussion.

[c]Value represents the percentage of the Adequate Intake (AI) of calcium. The AI is used as the recommended standard because an RDA is not available.

[d]Total number of plates observed at 15 vended sites and 70 nonvended sites.

n.a. = not applicable; RDA = Recommended Dietary Allowance; SE = standard error.

*Significantly different from nonvended meals at the .05 level, chi-squared test.
**Significantly different from nonvended meals at the .01 level, chi-squared test.

TABLE F.9

MEAN ENERGY AND KEY NUTRIENTS SERVED AT SFSP LUNCHES AND COMPARISON WITH RDAs AT SCHOOL AND NONSCHOOL-SPONSORED SITES

	School				Nonschool			
	Mean	SE	Mean as Percentage of Total RDA for 4 to 8 Year Olds	Mean as Percentage of Total RDA for 9 to 13 Year Olds	Mean	SE	Mean as Percentage of Total RDA for 4 to 8 Year Olds	Mean as Percentage of Total RDA for 9 to 13 Year Olds
Energy (kcal)	656	(24.7)	33[a]	33[a]	671	(19.4)	34[a]	34[a]
Protein (g)	25.7	(0.85)	92[a]	92[a]	27.5	(1.24)	98[a]	98[a]
Total fat (% kcal)	32.8	(0.86)	n.a.	n.a.	31.3	(0.94)	n.a.	n.a.
Saturated fat (% kcal)	12.3	(0.50)	n.a.	n.a.	11.5	(0.62)	n.a.	n.a.
Carbohydrate (% kcal)	51.5	(1.04)	n.a.	n.a.	52.7	(1.00)	n.a.	n.a.
Vitamin A (RE)	298	(38.0)	75[b]	50[b]	472	(107.4)	118[b]	79[b]
Vitamin C (mg)	30	(4.1)	120	67	23	(3.1)	92	51
Calcium (mg)	444	(18.1)	56[c]	34[c]	453	(15.1)	57[c]	35[c]
Iron (mg)	3.9	(0.19)	39	49	4.0	(0.16)	40	50
Sodium (mg)	1,078	(85.6)	n.a.	n.a.	1,226	(63.2)	n.a.	n.a.
Cholesterol (mg)	55	(4.5)	n.a.	n.a.	59	(5.5)	n.a.	n.a.
Dietary Fiber (g)	5.5	(0.44)	n.a.	n.a.	5.5	(0.29)	n.a.	n.a.
Sample Size[d]	**540**	—	—	—	**449**	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of breakfasts served nationally.

[a]Value represents one-third of the 1989 RDA for children aged 7 to 10 years.

TABLE F.9 *(continued)*

[b]Value represents the upper bound, as the mean is expressed as Retinol Equivalents (REs), and the RDA is expressed as Retinol Activity Equivalents. See Appendix E for a detailed discussion.

[c]Value represents the percentage of the Adequate Intake (AI) of calcium. The AI is used as the recommended standard because an RDA is not available.

[d]Total number of plates observed at 78 school-sponsored sites and 83 nonschool-sponsored sites.

n.a. = not applicable; RDA = Recommended Dietary Allowance; SE = standard error.

*Significantly different from nonschool meals at the .05 level, chi-squared test.
**Significantly different from nonschool meals at the .01 level, chi-squared test.

TABLE F.10

MEAN AND DISTRIBUTION OF ENERGY AND KEY NUTRIENTS SERVED ON A SINGLE DAY AT LUNCH AT SCHOOL-SPONSORED SITES

			Nutrition Standard[a]		Percentile				
	Mean	SE	4 to 8 Years	9 to 13 Years	10th	25th	50th	75th	90th
Energy (kcal)	656	(24.7)	667[b]	667[b]	415	522	651	749	892
Protein (g)	25.7	(0.85)	9[b]	9[b]	18.5	20.9	24.2	30.2	35.6
Total Fat (% kcal)	32.8	(0.86)	≤30	≤30	23.5	27.5	31.6	37.2	42.3
Saturated Fat (% kcal)	12.3	(0.50)	<10	<10	8.5	10.2	12.2	14.1	17.0
Carbohydrate (% kcal)	51.5	(1.04)	>55	>55	42.1	48.1	53.1	55.7	60.2
Vitamin A (RE)	298	(38.0)	133	200	113	152	213	301	338
Vitamin C (mg)	30	(4.1)	8	15	8	11	19	46	73
Calcium (mg)	444	(18.1)	267[c]	433[c]	324	377	436	530	604
Iron (mg)	3.9	(0.19)	3.3	2.7	2.4	3.1	3.7	4.7	5.4
Sodium (mg)	1,078	(85.6)	≤800	≤800	522	667	1,036	1,376	1,704
Cholesterol (mg)	55	(4.5)	≤100	≤100	24	37	51	69	93
Dietary Fiber (g)	5.5	(0.44)	3-4	4.5-6	2.7	3.6	5.0	7.3	9.2
Sample Size	**540**	—	—	—	—	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of lunches served nationally. Based on 540 plates observed at 78 sites.

[a]One-third of the RDA for energy and nutrients; Dietary Guidelines for fat and saturated fat densities; National Research Council recommendation for carbohydrate density, sodium, and cholesterol; and American Health Foundation for fiber.

TABLE F.10 *(continued)*

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[b]Value represents one-third of the 1989 RDA for children aged 7 to 10 years.

[c]Value represents the percentage of the Adequate Intake (AI) of calcium. The AI is used as the recommended standard because an RDA is not available.

RDA = Recommended Dietary Allowance; SE = standard error.

TABLE F.11

MEAN AND DISTRIBUTION OF ENERGY AND KEY NUTRIENTS SERVED ON A SINGLE DAY AT LUNCH AT NONSCHOOL-SPONSORED SITES

			Nutrition Standard[a]		Percentile				
	Mean	SE	4 to 8 Years	9 to 13 Years	10th	25th	50th	75th	90th
Energy (kcal)	671	(19.4)	667[b]	667[b]	486	577	647	766	819
Protein (g)	27.5	(1.24)	9[b]	9[b]	18.1	22.1	25.5	31.2	40.3
Total Fat (% kcal)	31.3	(0.94)	≤30	≤30	22.9	26.6	29.2	36.8	41.7
Saturated Fat (% kcal)	11.5	(0.62)	<10	<10	6.6	8.5	11.0	14.2	16.9
Carbohydrate (% kcal)	52.7	(1.00)	>55	>55	41.3	47.3	53.2	57.9	61.8
Vitamin A (RE)	472	(107.4)	133	200	154	174	231	311	1,587
Vitamin C (mg)	23	(3.1)	8	15	7	11	18	26	43
Calcium (mg)	453	(15.1)	267[c]	433[c]	349	364	444	508	582
Iron (mg)	4.0	(0.16)	3.3	2.7	2.7	3.3	3.8	4.9	5.3
Sodium (mg)	1,226	(63.2)	≤800	≤800	771	902	1,113	1,487	1,820
Cholesterol (mg)	59	(5.5)	≤100	≤100	22	33	49	74	99
Dietary Fiber (g)	5.5	(0.29)	3-4	4.5-6	3.0	4.3	5.2	6.6	7.9
Sample Size	**449**	—	—	—	—	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of lunches served nationally. Based on 449 plates observed at 83 sites.

[a]One-third of the RDA for energy and nutrients; Dietary Guidelines for fat and saturated fat densities; National Research Council recommendation for carbohydrate density, sodium, and cholesterol; and American Health Foundation for fiber.

TABLE F.11 *(continued)*

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[b]Value represents one-third of the 1989 RDA for children aged 7 to 10 years.

[c]Value represents the percentage of the Adequate Intake (AI) of calcium. The AI is used as the recommended standard because an RDA is not available.

RDA = Recommended Dietary Allowance; SE = standard error.

TABLE F.12

MEAN AND DISTRIBUTION OF NUTRIENTS SERVED
ON A SINGLE DAY AT BREAKFAST

			Nutrition Standard[a]		Percentile				
	Mean	SE	4 to 8 Years	9 to 13 Years	10th	25th	50th	75th	90th
Protein (g)	15.2	(1.02)	7.0[b]	7.0[b]	9.6	10.3	13.2	16.4	25.4
Total Fat (g)	12.8	(1.36)	n.a.	n.a.	5.2	6.0	10.2	17.3	24.0
Saturated fat (g)	5.3	(0.42)	n.a.	n.a.	2.6	3.0	4.6	6.8	9.1
Monounsaturated fat (g)	4.5	(0.53)	n.a.	n.a.	4.2	5.2	6.9	11.4	14.6
Polyunsaturated fat (g)	2.1	(0.42)	n.a.	n.a.	0.4	0.5	1.0	2.7	6.2
Carbohydrate (g)	63.8	(4.10)	n.a.	n.a.	41.3	44.3	60.1	81.4	96.8
B Vitamins									
Thiamin (mg)	0.47	(0.042)	0.15	0.23	0.23	0.34	0.43	0.58	0.81
Riboflavin (mg)	0.80	(0.042)	0.15	0.23	0.56	0.67	0.72	0.88	1.21
Niacin (mg)	4.18	(0.462)	2.00	3.00	1.61	2.46	3.58	5.03	7.70
Vitamin B_6 (mg)	0.48	(0.044)	0.15	0.25	0.23	0.29	0.47	0.61	0.87
Folate (mcg)	100	(9.7)	50	75	45	67	91	119	163
Vitamin B_{12} (mcg)	1.26	(0.074)	0.30	0.45	0.87	0.89	1.02	1.50	2.01
Vitamin E (mg)	1.24	(0.173)	1.75	2.75	0.32	0.41	0.94	1.81	2.64
Phosphorus (mg)	376	(14.6)	125	313	266	288	365	435	559
Magnesium (mg)	68	(3.0)	33	60	46	55	64	80	94

TABLE F.12 *(continued)*

			Nutrition Standard[a]		Percentile				
	Mean	SE	4 to 8 Years	9 to 13 Years	10th	25th	50th	75th	90th
Zinc (mg)	2.79	(0.177)	1.25	2.00	1.37	1.71	2.63	3.56	4.40
Copper (mg)	0.21	(0.022)	0.11	0.18	0.10	0.13	0.18	0.28	0.40
Potassium (mg)	729	(36.5)	n.a.	n.a.	532	582	674	817	1,148
Selenium (mcg)	19	(2.1)	8	10	7	10	15	23	38
Sample Size	**556**	—	—	—	—	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of breakfasts served nationally. Based on 556 plates observed at 85 sites.

[a]One-fourth of the RDA for nutrients.

[b]Value represents one-fourth of the 1989 RDA for children aged 7 to 10 years.

n.a. = not applicable; RDA = Recommended Dietary Allowance; SE = standard error.

TABLE F.13

MEAN AND DISTRIBUTION OF NUTRIENTS SERVED
ON A SINGLE DAY AT LUNCH

			Nutrition Standard[a]		Percentile				
	Mean	SE	4 to 8 Years	9 to 13 Years	10th	25th	50th	75th	90th
Protein (g)	26.5	(0.74)	9.3[b]	9.3[b]	18.4	21.6	24.8	30.3	37.8
Total Fat (g)	24.8	(0.79)	n.a.	n.a.	13.5	17.2	22.9	29.0	37.0
Saturated fat (g)	9.0	(0.34)	n.a.	n.a.	4.8	6.4	8.9	10.8	13.1
Monounsaturated fat (g)	9.3	(0.36)	n.a.	n.a.	8.1	9.1	11.5	14.0	16.6
Polyunsaturated fat (g)	4.7	(0.27)	n.a.	n.a.	1.8	2.2	3.9	6.1	8.3
Carbohydrate (g)	87.3	(2.63)	n.a.	n.a.	58.5	71.2	87.6	101.3	114.5
B Vitamins									
Thiamin (mg)	0.52	(0.021)	0.20	0.30	0.34	0.39	0.49	0.60	0.79
Riboflavin (mg)	0.77	(0.018)	0.20	0.30	0.61	0.67	0.75	0.85	0.97
Niacin (mg)	6.29	(0.302)	2.67	4.00	3.44	4.08	5.39	7.88	9.95
Vitamin B_6 (mg)	0.50	(0.025)	0.20	0.33	0.28	0.33	0.44	0.62	0.82
Folate (mcg)	100	(3.7)	67	100	56	74	91	126	154
Vitamin B_{12} (mcg)	1.55	(0.057)	0.40	0.60	0.92	1.13	1.37	1.88	2.41
Vitamin E (mg)	2.80	(0.166)	2.33	3.67	1.22	1.69	2.39	3.43	4.60
Phosphorus (mg)	499	(13.2)	167	417	373	401	483	574	637
Magnesium (mg)	98	(3.0)	43	80	66	77	93	108	138

TABLE F.13 *(continued)*

			Nutrition Standard[a]		Percentile				
	Mean	SE	4 to 8 Years	9 to 13 Years	10th	25th	50th	75th	90th
Zinc (mg)	3.23	(0.097)	1.67	2.67	2.02	2.55	3.02	3.52	4.65
Copper (mg)	0.39	(0.014)	0.15	0.23	0.20	0.29	0.40	0.46	0.55
Potassium (mg)	1,008	(23.9)	n.a.	n.a.	774	839	980	1,119	1,341
Selenium (mcg)	33	(1.6)	10	13	18	24	29	38	49
Sample Size	**989**	—	—	—	—	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of lunches served nationally. Based on 989 plates observed at 161 sites.

[a]One-third of the RDA for nutrients.

[b]Value represents one-third of the 1989 RDA for children aged 7 to 10 years.

n.a. = not applicable; RDA = Recommended Dietary Allowance; SE = standard error.

TABLE F.14

MEAN AND DISTRIBUTION OF NUTRIENTS SERVED
ON A SINGLE DAY AT SUPPER

			Nutrition Standard[a]		Percentile				
	Mean	SE	4 to 8 Years	9 to 13 Years	10th[b]	25th	50th	75th	90th[b]
Protein (g)	39.8	(4.63)	9.3[c]	9.3[c]	26.3	31.1	34.7	42.9	61.2
Total Fat (g)	31.7	(1.70)	n.a.	n.a.	22.3	29.8	31.9	34.3	43.3
Saturated fat (g)	10.8	(0.78)	n.a.	n.a.	8.0	8.3	10.7	12.5	14.3
Monounsaturated fat (g)	12.2	(1.07)	n.a.	n.a.	10.1	11.6	13.3	19.0	20.1
Polyunsaturated fat (g)	6.0	(0.99)	n.a.	n.a.	2.6	4.2	4.5	8.3	11.6
Carbohydrate (g)	86.1	(10.55)	n.a.	n.a.	59.0	63.1	71.9	105.1	129.3
B Vitamins									
Thiamin (mg)	0.51	(0.042)	0.20	0.30	0.39	0.42	0.46	0.63	0.68
Riboflavin (mg)	0.80	(0.017)	0.20	0.30	0.71	0.75	0.79	0.82	0.94
Niacin (mg)	10.53	(1.415)	2.67	4.00	5.86	7.40	9.61	11.93	15.77
Vitamin B_6 (mg)	0.72	(0.083)	0.20	0.33	0.46	0.51	0.56	1.01	1.04
Folate (mcg)	117	(11.8)	67	100	91	94	102	134	175
Vitamin B_{12} (mcg)	1.63	(0.271)	0.40	0.60	0.64	1.26	1.30	2.38	2.95
Vitamin E (mg)	3.54	(0.344)	2.33	3.67	2.68	3.03	3.37	3.83	3.92
Phosphorus (mg)	535	(16.6)	167	417	416	498	511	614	640
Magnesium (mg)	101	(11.2)	43	80	73	76	91	128	149

TABLE F.14 *(continued)*

			Nutrition Standard[a]		Percentile				
	Mean	SE	4 to 8 Years	9 to 13 Years	10th[b]	25th	50th	75th	90th[b]
Zinc (mg)	4.70	(0.651)	1.67	2.67	2.68	2.83	4.28	5.98	7.61
Copper (mg)	0.44	(0.074)	0.15	0.23	0.26	0.32	0.35	0.51	0.64
Potassium (mg)	1,115	(118.6)	n.a.	n.a.	782	860	1,092	1,174	1,487
Selenium (mcg)	45	(6.0)	10	13	27	34	35	61	72
Sample Size	**75**	—	—	—	—	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of suppers served nationally. Based on 75 plates observed at 12 sites.

[a]One-third of the RDA for nutrients.

[b]May be unreliable due to small sample size.

[c]Value represents one-third of the 1989 RDA for children aged 7 to 10 years.

n.a. = not applicable; RDA = Recommended Dietary Allowance; SE = standard error.

TABLE F.15

MEAN AND PERCENTAGE OF ENERGY AND NUTRIENTS WASTED AT BREAKFAST AT SCHOOL-SPONSORED SITES, BASED ON PLATE WASTE OBSERVATIONS[a]

	Mean Waste	Standard Error	Total Mean Served	Standard Error	Percentage Wasted[b]
Macronutrients					
Energy (kcal)	154	(23.0)	412	(39.5)	37
Protein (g)	5.8	(0.96)	14.7	(1.27)	40
Carbohydrate (g)	21.7	(3.12)	59.9	(4.78)	36
Total Fat (g)	5.2	(1.02)	13.5	(2.04)	39
Saturated fat (g)	2.2	(0.40)	5.4	(0.58)	41
Monounsaturated fat (g)	1.7	(0.35)	4.7	(0.79)	36
Polyunsaturated fat (g)	0.8	(0.24)	2.4	(0.67)	33
Vitamins and Minerals					
Vitamin A (RE)	97	(12.9)	310	(26.7)	31
B Vitamins					
Thiamin (mg)	0.13	(0.021)	0.43	(0.023)	30
Riboflavin (mg)	0.27	(0.038)	0.75	(0.027)	36
Niacin (mg)	0.90	(0.166)	3.72	(0.265)	24
Vitamin B_6 (mg)	0.13	(0.018)	0.45	(0.029)	28
Folate (mcg)	25	(4.7)	91	(4.9)	28
Vitamin B_{12} (mcg)	0.48	(0.063)	1.13	(0.070)	42
Vitamin C (mg)	11	(2.7)	34	(4.3)	31
Vitamin E (AE)	0.44	(0.106)	1.25	(0.275)	35
Calcium (mg)	164	(22.1)	386	(17.7)	43
Phosphorus (mg)	152	(21.6)	376	(19.6)	40
Magnesium (mg)	26	(3.7)	66	(2.5)	39

TABLE F.15 (*continued*)

	Mean Waste	Standard Error	Total Mean Served	Standard Error	Percentage Wasted[b]
Iron (mg)	1.0	(0.15)	4.1	(0.43)	24
Zinc (mg)	0.83	(0.128)	2.85	(0.208)	29
Copper (mg)	0.08	(0.015)	0.20	(0.023)	38
Potassium (mg)	287	(34.1)	705	(33.6)	41
Selenium (mcg)	6	(1.4)	18	(2.1)	36
Other Dietary Components					
Sodium (mg)	176	(35.8)	513	(61.0)	34
Cholesterol (mg)	23	(7.0)	52	(12.1)	44
Dietary Fiber (g)	0.6	(0.15)	1.9	(0.19)	34
Sample Size[c]	**520**	**—**	**—**	**—**	**—**

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of breakfasts nationally.

[a]Does not include waste from the share box items or discarded meals.

[b]Calculated as mean nutrient wasted divided by the mean nutrient served times 100.

[c]Total number of plates observed at 54 sites.

TABLE F.16

MEAN AND PERCENTAGE OF ENERGY AND NUTRIENTS WASTED AT BREAKFAST AT NONSCHOOL-SPONSORED SITES, BASED ON PLATE WASTE OBSERVATIONS[a]

	Mean Waste	Standard Error	Total Mean Served	Standard Error	Percentage Wasted[b]
Macronutrients					
Energy (kcal)	123	(9.5)	441	(33.0)	28
Protein (g)	4.4	(0.45)	15.8	(1.61)	28
Carbohydrate (g)	19.6	(1.99)	69.5	(5.07)	28
Total Fat (g)	3.3	(0.44)	11.9	(1.69)	28
Saturated fat (g)	1.5	(0.18)	5.2	(0.58)	29
Monounsaturated fat (g)	1.1	(0.18)	4.1	(0.70)	27
Polyunsaturated fat (g)	0.5	(0.11)	1.7	(0.41)	29
Vitamins and Minerals					
Vitamin A (RE)	106	(14.3)	353	(51.2)	30
B Vitamins					
Thiamin (mg)	0.13	(0.023)	0.52	(0.084)	26
Riboflavin (mg)	0.24	(0.024)	0.86	(0.081)	28
Niacin (mg)	1.32	(0.250)	4.83	(0.944)	27
Vitamin B_6 (mg)	0.14	(0.028)	0.54	(0.092)	25
Folate (mcg)	28	(5.6)	112	(19.9)	25
Vitamin B_{12} (mcg)	0.41	(0.051)	1.45	(0.106)	28
Vitamin C (mg)	11	(2.2)	44	(9.0)	24
Vitamin E (AE)	0.45	(0.119)	1.22	(0.172)	37
Calcium (mg)	108	(6.9)	368	(20.6)	29
Phosphorus (mg)	108	(6.9)	377	(22.8)	29
Magnesium (mg)	20	(1.4)	71	(5.6)	28

TABLE F.16 (*continued*)

	Mean Waste	Standard Error	Total Mean Served	Standard Error	Percentage Wasted[b]
Iron (mg)	1.2	(0.33)	4.4	(0.81)	27
Zinc (mg)	0.74	(0.103)	2.72	(0.275)	27
Copper (mg)	0.07	(0.014)	0.24	(0.036)	30
Potassium (mg)	237	(30.0)	764	(71.3)	31
Selenium (mcg)	6	(1.1)	21	(3.9)	27
Other Dietary Components					
Sodium (mg)	143	(25.7)	572	(104.3)	25
Cholesterol (mg)	13	(2.7)	55	(13.1)	24
Dietary Fiber (g)	1.1	(0.22)	3.1	(0.51)	36
Sample Size[c]	**295**	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of breakfasts nationally.

[a]Does not include waste from the share box items or discarded meals.

[b]Calculated as mean nutrient wasted divided by the mean nutrient served times 100.

[c]Total number of plates observed at 31 sites.

TABLE F.17

MEAN AND PERCENTAGE OF ENERGY AND NUTRIENTS WASTED
AT LUNCH AT SCHOOL-SPONSORED SITES,
BASED ON PLATE WASTE OBSERVATIONS[a]

	Mean Waste	Standard Error	Total Mean Served	Standard Error	Percentage Wasted[b]
Macronutrients					
Energy (kcal)	204	(13.7)	656	(24.7)	31
Protein (g)	7.7	(0.54)	25.7	(0.85)	30
Carbohydrate (g)	28.1	(2.09)	85.1	(4.19)	33
Total Fat (g)	7.4	(0.67)	25.3	(1.23)	29
Saturated fat (g)	2.6	(0.20)	9.2	(0.46)	28
Monounsaturated fat (g)	2.8	(0.28)	9.8	(0.57)	29
Polyunsaturated fat (g)	1.4	(0.22)	4.5	(0.42)	31
Vitamins and Minerals					
Vitamin A (RE)	155	(58.5)	298	(38.0)	52
B Vitamins					
Thiamin (mg)	0.16	(0.014)	0.52	(0.031)	31
Riboflavin (mg)	0.24	(0.021)	0.75	(0.028)	32
Niacin (mg)	1.71	(0.146)	6.12	(0.433)	28
Vitamin B_6 (mg)	0.14	(0.011)	0.47	(0.037)	30
Folate (mcg)	36	(3.2)	101	(4.6)	36
Vitamin B_{12} (mcg)	0.43	(0.035)	1.49	(0.067)	29
Vitamin C (mg)	10	(1.3)	30	(4.1)	33
Vitamin E (AE)	0.92	(0.109)	2.91	(0.255)	32
Calcium (mg)	138	(14.3)	444	(18.1)	31
Phosphorus (mg)	149	(11.8)	486	(19.3)	31
Magnesium (mg)	29	(2.4)	96	(4.9)	30

TABLE F.17 (*continued*)

	Mean Waste	Standard Error	Total Mean Served	Standard Error	Percentage Wasted[b]
Iron (mg)	1.3	(0.09)	3.9	(0.19)	33
Zinc (mg)	0.98	(0.059)	3.19	(0.107)	31
Copper (mg)	0.12	(0.012)	0.38	(0.021)	32
Potassium (mg)	313	(20.4)	972	(30.0)	32
Selenium (mcg)	10	(0.7)	30	(0.9)	33
Other Dietary Components					
Sodium (mg)	344	(30.4)	1,078	(85.6)	32
Cholesterol (mg)	16	(1.7)	55	(4.5)	29
Dietary Fiber (g)	2.0	(0.22)	5.5	(0.44)	36
Sample Size[c]	**749**	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of lunches nationally.

[a]Does not include waste from the share box items or discarded meals.

[b]Calculated as mean nutrient wasted divided by the mean nutrient served times 100.

[c]Total number of plates observed at 78 sites.

TABLE F.18

MEAN AND PERCENTAGE OF ENERGY AND NUTRIENTS WASTED
AT LUNCH AT NONSCHOOL-SPONSORED SITES,
BASED ON PLATE WASTE OBSERVATIONS[a]

	Mean Waste	Standard Error	Total Mean Served	Standard Error	Percentage Wasted[b]
Macronutrients					
Energy (kcal)	216	(18.9)	671	(19.4)	32
Protein (g)	8.3	(0.80)	27.5	(1.24)	30
Carbohydrate (g)	29.1	(2.55)	89.7	(2.75)	32
Total Fat (g)	8.0	(0.83)	24.3	(1.10)	33
Saturated fat (g)	2.7	(0.27)	8.8	(0.55)	31
Monounsaturated fat (g)	2.9	(0.31)	8.8	(0.41)	33
Polyunsaturated fat (g)	1.8	(0.29)	4.9	(0.39)	37
Vitamins and Minerals					
Vitamin A (RE)	253	(98.4)	472	(107.4)	54
B Vitamins					
Thiamin (mg)	0.17	(0.013)	0.53	(0.027)	32
Riboflavin (mg)	0.23	(0.018)	0.79	(0.019)	29
Niacin (mg)	2.26	(0.340)	6.48	(0.468)	35
Vitamin B_6 (mg)	0.18	(0.021)	0.54	(0.029)	33
Folate (mcg)	33	(2.9)	98	(6.1)	34
Vitamin B_{12} (mcg)	0.45	(0.062)	1.63	(0.099)	28
Vitamin C (mg)	8	(1.4)	23	(3.1)	35
Vitamin E (AE)	1.01	(0.147)	2.68	(0.213)	38
Calcium (mg)	124	(8.5)	453	(15.1)	27
Phosphorus (mg)	149	(11.9)	514	(16.5)	29
Magnesium (mg)	31	(3.4)	100	(3.4)	31

TABLE F.18 (*continued*)

	Mean Waste	Standard Error	Total Mean Served	Standard Error	Percentage Wasted[b]
Iron (mg)	1.3	(0.12)	4.0	(0.16)	33
Zinc (mg)	1.04	(0.119)	3.27	(0.177)	32
Copper (mg)	0.13	(0.012)	0.40	(0.015)	33
Potassium (mg)	318	(25.7)	1,049	(36.9)	30
Selenium (mcg)	12	(1.5)	37	(3.1)	32
Other Dietary Components					
Sodium (mg)	405	(40.1)	1,226	(63.2)	33
Cholesterol (mg)	17	(2.6)	59	(5.5)	29
Dietary Fiber (g)	2.1	(0.20)	5.5	(0.29)	38
Sample Size[c]	**821**	—	—	—	—

SOURCE: SFSP Implementation Study, Site Observations (2001).

NOTE: Tabulations are weighted to be representative of lunches nationally.

[a]Does not include waste from the share box items or discarded meals.

[b]Calculated as mean nutrient wasted divided by the mean nutrient served times 100.

[c]Total number of plates observed at 83 sites.