Appendix E-3.1
Adequacy of USDA Food Patterns: Food Pattern Modeling Analysis

RESEARCH QUESTION

How well do current USDA food patterns, using updated food intake and nutrient data, meet IOM Dietary Reference Intakes and potential DG 2010 nutrient recommendations?

BACKGROUND

(Note: This section was adapted from Britten et al, 2006 and Marcoe et al, 2006.)

History of the USDA food patterns:

Food guides describe the types and amounts of food to consume. Over the past century, USDA has developed a number of different food guides to identify patterns of eating that would meet known nutrient needs and balance intake from various food groups. Many of the earlier food guides focused on nutrient adequacy only and were designed to meet known nutrient needs at the time. Beginning in the late 1970s, recommendations for dietary moderation to help prevent chronic disease were issued. A need was recognized for a food guide that made food intake suggestions for a "total diet" rather than a "foundation diet" in order to encompass goals for moderation as well as adequacy.

The first USDA food patterns that represented a "total diet" approach to food guides were developed in the mid-1980s. They were presented as a Food Wheel for a joint American Red Cross-USDA nutrition course and later presented in tabular form as "A Pattern for Daily Food Choices." A new graphic approach to presenting these food patterns resulted in the original Food Guide Pyramid, released in 1992.

The original Pyramid's food patterns were designed to meet nutritional goals from the 1980 Recommended Dietary Allowances (RDA), the 1980 Dietary Guidelines for Americans, and other standards that were current at the time. They were later assessed in comparison to the 1989 RDAs and the 1985 and 1990 Dietary Guidelines. In 2002 through 2004, the patterns underwent a major revision to meet the newly released IOM Dietary Reference Intakes and the 2005 Dietary Guidelines. These revised patterns became the basis for the MyPyramid Food Guidance System.

Process for developing the 2005 USDA food patterns

The overall iterative process used to develop the 2005 food patterns included: (1) identifying appropriate energy levels for the patterns, (2) identifying nutritional goals for the patterns, (3) establishing food groupings, (4) determining the amounts of nutrients that would be obtained by consuming various combinations of foods, and (5) evaluating nutrient levels in each pattern against nutritional goals. Each step is described briefly here.

1. **Establish Energy Levels**. IOM Dietary Reference Intakes formulas were used to calculate Estimated Energy Requirements (EER) for various age/gender groups within the population. These formulas are based on gender, age, height, weight, and physical activity level. Median heights and weights at healthy BMIs were used to calculate appropriate energy levels for the patterns.
2. **Establish Nutritional Goals**. Specific nutritional goals for each food pattern were selected based on the age/gender group(s) for which it was targeted. If a food pattern was targeted for more than one age/gender group, the pattern was evaluated against the nutrient goals for all those groups. Goals for 9 vitamins, 8 minerals, 6 macronutrients, and acceptable intake ranges

for 5 macronutrients were based on IOM DRI reports released between 1997 and 2004 and on quantitative recommendations in the 2005 Dietary Guidelines.

3. **Establish Food Groupings**. Food groups and subgroups developed for the original Pyramid were reviewed to identify where changes might be needed to reflect the 2005 Dietary Guidelines. A need was identified to distinguish between fats that are primarily sources of saturated fatty acids and those that are primarily sources of mono- or poly-unsaturated fatty acids. To accomplish this, fats were separated into subgroups of solid fats and oils, and oils were identified as an essential component of the food patterns. Also, a discretionary calorie allowance was included in each food pattern in response to the 2005 DGAC's identification of the new concept of discretionary calories.

4. **Identify Nutrient Contributions from Each Food Group**. A "composite" system was used to determine the expected nutrient content of each food group. Composites reflect the proportional use of individual foods within each food group or subgroup. Item clusters of the same or similar foods were identified, and a nutrient-dense form of the food selected to represent each. For example, lean cuts of meats, fat-free milk, and vegetables and fruits without added fat or sweeteners are used as representative foods. A nutrient profile was calculated for each food group or subgroup to reflect its nutrient content using proportional consumption and nutrients in the nutrient-dense forms of representative foods.

5. **Determine Recommended Amounts from Each Food Group**. Twelve initial patterns were created by making stepped alterations to the amounts in the three original (1992) patterns, and the nutrients provided in each initial pattern were compared to its goals. Iterative changes to food group amounts were made when needed until the pattern achieved its nutritional goals or came within a reasonable range. Food group amounts were changed based on a judgment of which food groups could most reasonably provide the nutrients when goals were not met. All necessary increases were balanced with energy compensating decreases in other food groups.

The rationale for the current analysis is to determine if the USDA food patterns, as presented in the 2005 Dietary Guidelines, but **with updated food group nutrient profiles, based on more recent and detailed food consumption and nutrient composition data**, continue to meet nutritional goals for adequacy and moderation while staying within the established calorie targets.

METHODS

1. **Assigned all foods reported consumed from the NHANES 2003-2004 to appropriate item clusters**. Item cluster assignment was based on the type of food, using the food description or recipe. Mixed dishes were disaggregated into single item components and each component was assigned to an item cluster. (See Figures 1 and 2 for examples.)

   We created more detailed item clusters within the vegetable, fruit, and milk groups to better represent food choices and nutrients obtained from these groups. A total of 365 item clusters were identified, and these are represented for calculations by 281 representative foods. Table 1 lists the number of item clusters for each food group or subgroup, in comparison to the number used in analyses for the 2005 food patterns. See Table B1, "Item clusters and representative foods for USDA food patterns and food pattern modeling analyses" for the full list of the current clusters.

Table 1. Number of item clusters used in the 2005 revision of the food patterns compared to clusters developed for the current analysis and food pattern update

Food Group	Subgroup	2005 Food Patterns	2010 Food Pattern Update
Milk, Yogurt, Cheese		1 cluster	65 clusters[1] (12 representative foods)
Fruits		20 clusters	100 clusters (75 representative foods)
Vegetables	Dark Green	9 clusters	19 clusters
	Orange (Red/Orange)	5 clusters (orange only)	12 clusters (red/orange)
	Starchy	4 clusters	14 clusters
	Dry Beans & Peas	10 clusters	11 clusters
	Other	17 clusters (including red vegetables)	38 clusters (without red vegetables)
Grains	Whole	11 clusters	13 clusters
	Refined	12 clusters	19 clusters
Meat & Beans	Meats	8 clusters	9 clusters
	Poultry	2 clusters	3 clusters
	Fish (high n3)	7 clusters	13 clusters
	Fish (low n3)	14 clusters	29 clusters
	Eggs	1 cluster	1 cluster
	Nuts/Seeds	11 clusters	17 clusters
	Processed Soy Products	N/A[2]	2 clusters

[1] The large number of clusters in the milk group was developed to provide a description of how milk products are consumed, not for use in calculating a nutrient profile.
[2] Processed soy products were previously included in the vegetable group with cooked dry beans and peas.

In the past, all milk group foods had been assigned to a single cluster represented by fat-free milk. The current analysis separated milk group foods into 65 different clusters, based on the milk component of the food and the type of dish. This was done to more closely identify the types of milk products consumed for descriptive purposes. To develop the nutrient profile for the milk group, the 65 clusters are represented by 12 different foods, with several clusters assigned to the same representative food. For example, nine flavored or fruit yogurt clusters are represented by a single food—nonfat vanilla yogurt with a non-caloric sweetener.

In addition, more detailed item clusters within the vegetable and fruit groups were identified by conducting a review of the food descriptions and detailed recipe file used in analysis of NHANES dietary intake data. In cases where similar vegetables or fruits had previously been lumped into a single cluster because of low consumption (less than 1% of subgroup intake), the exact vegetable or fruit was identified and assigned to a separate cluster. For example, asparagus and snow peas had previously been grouped with green beans, and mangos had previously been grouped with peaches.

2. **Selected an "ideal" (in nutrient-dense form) representative food for each item cluster**. Representative foods for each item cluster were selected from those available in the National Nutrient Database for Standard Reference, Release 22 (NDB-SR22). To the extent possible, they are forms of the foods that are lean or low-fat, with no added sugars or sodium. They are intended to be widely available in the marketplace. In a few cases, a food with some added salt, fat, or sugars was selected when an appropriate product low in all three was not in the database. For example, the cheeses we selected are low fat, but not also low in sodium, and the ice cream we selected is a low fat version, but it contains sugar, not a noncaloric sweetener. Because we wanted foods that people might realistically substitute for their typical choices, those designed for special diets, such as low sodium breads, were not used as representative foods. In all, of the 281 representative foods, 38 (13.5%) contain added salt and 23 (8.2%) contain some added sugars. Among those with added salt, almost half are bread and cereal products; the remainder include processed and cured meats, canned fish (tuna, sardines, anchovy), veggie burgers, peanut butter, cheeses, olives, low-sodium pickles, hash brown potatoes, and fat-free potato chips. Those with added sugars include some bread and cereal products, cranberry sauce, dried cranberries, fruit nectars, and ice cream.

   The nutrients used in updating the nutrient profile calculations are listed in Table 2. Some nutrients of potential interest were not included because the NDB-SR22 data are not complete for these nutrients for many foods, including *trans* fatty acids, manganese, fluoride, and some individual fatty acids.

Table 2. Nutrients included in food patterns analysis

Vitamins	Minerals	Macronutrients	Fats & Fatty Acids
Vitamin A	Calcium	Energy	Cholesterol
Vitamin E	Iron	Protein	Saturated Fatty Acids
Vitamin D	Magnesium	Total lipid (fat)	Monounsaturated Fatty Acids
Vitamin C	Phosphorus	Carbohydrate	Polyunsaturated Fatty Acids
Thiamin	Potassium	Fiber, total dietary	18:0 Stearic Acid
Riboflavin	Sodium	Water	18:2 Linoleic Acid
Niacin	Zinc		18:3 Linolenic Acid
Vitamin B-6	Copper		
Vitamin B-12	Selenium		
Choline			
Vitamin K			
Total Folate			

3. **Calculated nutrient profiles for each food group or subgroup using the nutrient data for "ideal" representative foods and the proportional consumption of each item cluster from the group composite**. The nutrient profiles for the fruit and milk groups are calculated as a food group profile. The profiles for the vegetable, grain, and meat and beans groups are calculated for subgroups within the overall food group. Subgroups are identified in Table 1.

4. **Modified recommended weekly intake amounts for vegetable subgroups from those in the 2005 Dietary Guidelines to accommodate modifications to vegetable subgroups**. Vegetable subgroups were modified to decrease the wide discrepancy in the size of the subgroups and provide more focus on tomatoes. Despite their popularity and nutritive value,

tomatoes had been effectively hidden because they were grouped with so many other vegetables in a subgroup that represented over half of all vegetable consumption. Recommended weekly intake amounts for vegetable subgroups were also modified to maintain nutrient adequacy while bringing intake recommendations closer to typical "best practices" (95th percentile intake level or less) for vegetable subgroup intakes. For more information, see Appendix E-3.2 *Realigning Vegetable Subgroups*. Recommended intake amounts for each food group and subgroup for all calorie levels are shown in Table A1.

5. **Calculated calories and nutrients provided by each pattern from nutrient profile and recommended intake data**. The sum of calories from the food groups and oils were considered "essential calories," and a maximum limit on calories from solid fats and added sugars was calculated by subtracting essential calories from the caloric goal for the pattern. The maximum limit calorie value was evenly divided between solid fats and added sugars, to allow for calculation of the amount and proportions of fatty acids and carbohydrates in the overall patterns. These assignments are roughly similar to the proportional intakes of solid fats and added sugars in the population, but can be modified for specific food pattern modeling questions.

6. **Identified nutritional goals that were met or not met for appropriate age/gender groups at each calorie level**. Each age/gender group was assigned to an intake pattern at a specific calorie level that should meet their energy needs to maintain weight, assuming an average height and a weight within the healthy weight range. Each pattern was compared to the nutrient goals for each age/gender group assigned to that pattern. For this evaluation, the pattern selected was at an energy level appropriate for sedentary individuals within the age/gender group. (Table A2 lists the assignment of age/gender groups to food patterns; Table A3 lists the specific nutrient goals for each pattern.)

RESULTS

Calorie levels in food patterns:

For all food patterns, when using the nutrients and calories from representative foods that are in nutrient-dense forms, the sum of the calories from recommended amounts of each food group and oils ("essential calories") was less than the caloric goal for the pattern. The remaining calories are the maximum limit on calories from solid fats and added sugars (SoFAS), as shown in Table 3. Table 3 also identifies how the limit was apportioned between amounts of solid fats and added sugars, for the purpose of calculating macronutrient proportions.

Table 3. Essential calories and limit on calories from solid fats and added sugars (SoFAS) in each pattern and the amounts of solid fats and added sugars used in analysis of the pattern

Calorie Level	Essential Calories[1]	Calculated Limit on Calories from SoFAS[2]	Solid Fats Assigned[3]	Added Sugars Assigned[3]	Adjusted Calorie Limit from SoFAS[4]
1000	855	145	9 grams	4 tsp	137
1200	1063	137	9 grams	4 tsp	137
1400	1252	148	9 grams	4 tsp	137
1600	1481	119	7 grams	4 tsp	121
1800	1636	164	10 grams	5 tsp	161
2000	1739	261	16 grams	8 tsp	258
2200	1925	275	17 grams	8 tsp	266
2400	2054	346	21 grams	10 tsp	330
2600	2221	379	23 grams	11 tsp	362
2800	2401	399	25 grams	12 tsp	395
3000	2526	474	29 grams	14 tsp	459
3200	2587	613	38 grams	18 tsp	596

[1] Calories in pattern if all foods are consumed in nutrient-dense forms.
[2] Calculated from pattern calorie level minus essential calories.
[3] Calculated from one-half calculated calorie limit from SoFAS, converted to grams or teaspoons and rounded.
[4] Adjusted using caloric values from the rounded amounts of solid fats and added sugars.

The calories from SoFAS are extremely limited for patterns at some caloric levels, especially in the 1600 calorie food pattern, which is targeted to meet the needs of sedentary women 51 or older and sedentary girls 9 to 13. These population groups have relatively high nutrient requirements and low energy needs, so that almost all of their caloric requirements are used in meeting nutrient needs. Note that physically active women over 50 and girls 9 to 13 are assigned to higher calorie level patterns, as shown in Table A2.

The 1600 calorie food pattern is the lowest calorie pattern designed to meet nutrient needs of those over 8 years of age—the patterns at the 1000 to 1400 calorie level are targeted to meet the nutrient needs of children 2 to 8 years old. In contrast to the patterns at 1000 to 1400 calories that contain 2 cup equivalents from the milk group, the patterns at 1600 calories and above include 3 cup equivalents from the milk group to meet the higher calcium recommendations for those 9 and older. For these reasons, calories from SoFAS for the 1600 food pattern are more limited than in the lower calorie patterns.

In comparison to the 2005 patterns, the number of essential calories is slightly higher and the resulting calorie limit for SoFAS is slightly lower. This change is due to an increase in the number of calories in the nutrient profiles for some food groups or subgroups, including whole grains, starchy vegetables, and cooked dry beans and peas. Table 4 compares the calories per cup or ounce equivalent in all food groups and subgroups in the 2005 and 2010 patterns. The largest increases are in the starchy, cooked dry beans and peas, and other vegetable subgroups and in whole grains. The more detailed item clusters for starchy vegetables include fried potatoes (hash browns) and oven-baked French fries that contain some added fat. Previously, all fried potatoes were represented by

boiled potatoes. The increase in the cooked dry beans and peas subgroup is due to moving processed soy products—tofu and soy-based meat analogs—to the meat and beans group. These items were previously represented by tofu, which had fewer calories per cup equivalent than other cooked dry beans and peas. Changes in the calories in orange (red-orange) and other vegetable subgroups are related to shifting tomatoes to the red-orange subgroup. The increased calories in the whole grain profile is related to the creation of more detailed item clusters and selection of more realistic representative foods for several clusters.

Table 4. Comparison of calories in 2005 and 2010 food group nutrient profiles

Food Group	Subgroup	Calories per Oz or Cup Equiv., 2005 Food Patterns	Calories per Oz or Cup Equiv., 2010 Food Pattern Update
Milk, Yogurt, Cheese		83	81
Fruits		118	101
Vegetables			
	Dark Green	40	36
	Orange (Red/Orange)	64	48
	Starchy	146	183
	Dry Beans and Peas	228	242
	Other	35	48
Grains			
	Whole	77	89
	Refined	83	81
Meat & Beans		54	
	Meats		49
	Poultry		50
	Fish (high n3)		51
	Fish (low n3)		33
	Eggs		78
	Nuts/seeds		87
	Processed Soy Products		49

Nutrients in food patterns:

The 12 USDA food patterns meet almost all of their nutritional goals for adequacy. Table 5 presents sample findings. See Table A4 for the nutrients provided by each pattern, and Table A5 for a comparison of the nutrients in all patterns to all nutrient goals. In many cases, amounts of a nutrient in the patterns are well above the RDA or AI. Protein, phosphorus, zinc, selenium, vitamin C, thiamin, riboflavin, niacin, vitamin K, folate, vitamin B6, copper, and vitamin B12 are all well above the goal amounts. In contrast, some nutrients are just above these amounts or marginally below (90 to 100% of goal) goal amounts for some age/gender groups. For example, amounts are marginal for iron for women 19-50, calcium for teens, fiber for young children, and magnesium for older women and men.

The nutrients for which adequacy goals are not met are potassium, vitamin E, and choline in almost all patterns, and vitamin D for some young children and older women and men. The results for

vitamin E are similar to the results for the 2005 food patterns. In the 2005 patterns, vitamin E was less than the RDA for all patterns except at 3200 calories, where it was exactly 100% of the RDA. Choline and vitamin D were not measured in the 2005 patterns.

Potassium levels are below the AI in the patterns with less than 3000 calories. Potassium levels in the 2005 patterns were somewhat higher, but still below the AI for all of the patterns with less than 2600 calories. The lower potassium levels in the 2010 patterns are explained primarily by the change in the milk group nutrient profile. In 2005, the profile only reflected skim milk nutrient values. In 2010, a weighted profile including lowfat cheese and other milk products was used. Cheese is substantially lower in potassium than milk, so the resulting amount of potassium in the milk group nutrient profile was reduced by 145 mg per cup equivalent. In addition, the potassium provided by the fruit group was 105 mg less per cup equivalent than in 2005. Potassium provided by some of the realigned vegetable subgroups was slightly higher than the 2005 amounts, but not sufficiently higher to offset the lower potassium from the milk and fruit groups. See Table A6 for the differences in potassium by food group between the 2005 and the 2010 food patterns.

The patterns also meet almost all of their nutrient goals for moderation. The patterns at higher calorie levels ($\geq$2800) are above the UL for sodium, similar to the 2005 patterns. In addition, all patterns are above the sodium AI for the age/gender group for which they are targeted. The 3200 calorie pattern is also just above the 35% calories from fat upper boundary. All other moderation goals are met.

Table 5. Sample nutrients in selected food patterns and comparison to goals for targeted age/gender group. All nutrients and calorie levels are listed in Tables A4 and A5.

Calorie Level of Pattern	1200	1600	2000	2400
Target Gender/Age Group	**F 4-8**	**F 51-70**	**F 19-30**	**M 19-30**
Macronutrients				
Protein	55 g	83 g	91 g	106 g
% of RDA	287%	180%	198%	189%
% of calories	18%	21%	18%	18%
Total lipid (fat)	43 g	55 g	71 g	86 g
% of calories	32%	31%	32%	32%
Carbohydrate	155 g	203 g	260 g	312 g
% of RDA	119%	157%	200%	240%
% of calories	52%	51%	52%	52%
Fiber, total dietary	17 g	25 g	30 g	37 g
% of goal (14 g/1000 kcal)	104%	110%	106%	109%
Minerals				
Calcium	803 mg	1184 mg	1235 mg	1323 mg
% of AI	100%	99%	124%	132%
Iron	10 mg	15 mg	17 mg	21 mg
% of RDA	104%	182%	94%	266%
Magnesium	212 mg	310 mg	351 mg	418 mg
% of RDA	163%	97%	113%	104%
Potassium	2059 mg	2971 mg	3478 mg	3945 mg
% of AI	54%	63%	74%	84%
Sodium	1088 mg	1527 mg	1722 mg	2028 mg
% of UL	57%	66%	75%	88%
Vitamins				
Vitamin A (in µg RAE)	527 µg	756 µg	851 µg	969 µg
% of RDA	132%	108%	122%	108%
Vitamin E (in mg AT)	4.9 mg	6.7 mg	8.3 mg	9.6 mg
% of RDA	70%	45%	55%	64%
Vitamin C	70 mg	100 mg	126 mg	138 mg
% of RDA	279%	133%	168%	153%
Vitamin D	166 IU	249 IU	258 IU	275 IU
% of AI	83%	62%	129%	137%
Folate (in µg DFE)	387 µg	534 µg	628 µg	803 µg
% of RDA	193%	134%	157%	201%
Choline	200 mg	304 mg	340 mg	391 mg
% of AI	80%	72%	80%	71%
Fats and Fatty Acids				
Cholesterol	129 mg	206 mg	229 mg	268 mg
% of goal (<300mg/day)	43%	69%	76%	89%
Saturated fatty acids	11.2 g	14.0 g	18.7 g	22.5 g
% of calories	8%	8%	8%	8%
Monounsaturated fatty acids	15.7 g	20.0 g	26.1 g	31.4 g
% of calories	12%	11%	12%	12%
Polyunsaturated fatty acids	12.8 g	16.4 g	20.9 g	25.0 g
% of calories	10%	9%	9%	9%

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Figure 1. Example of disaggregation of a mixed food into item clusters

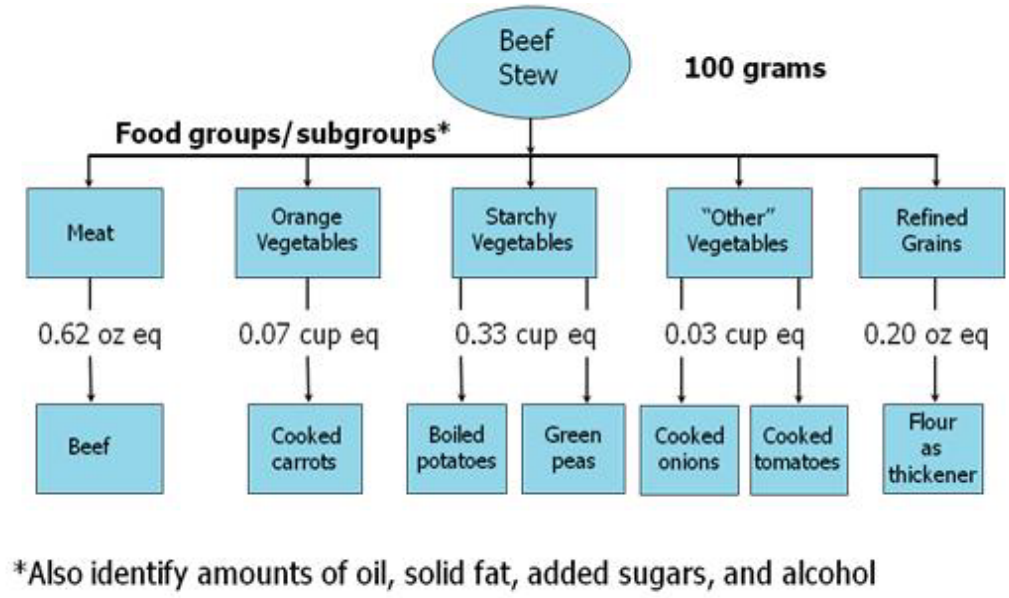
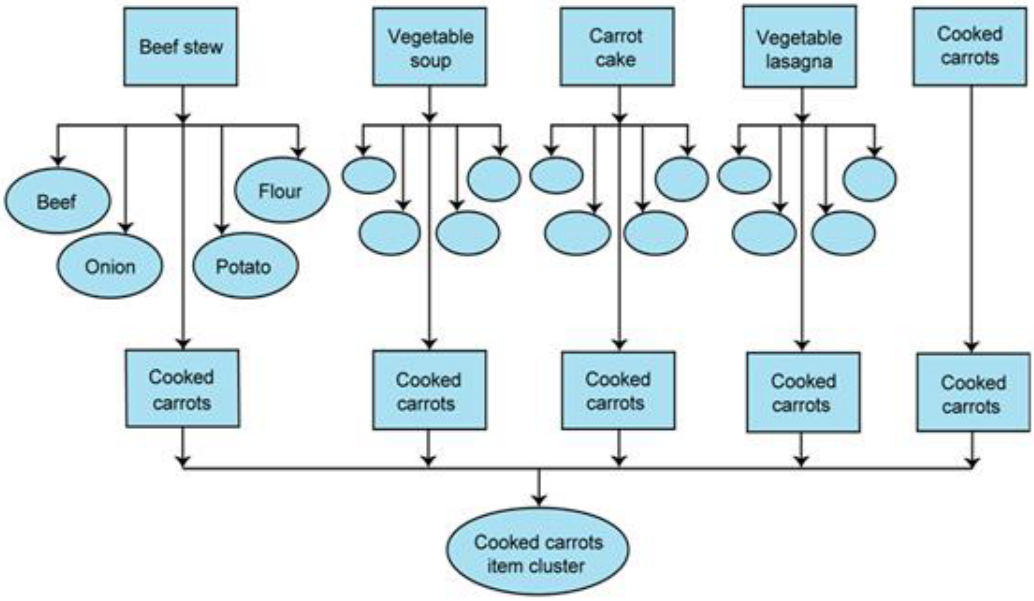


Figure 2. Example of aggregation of an item cluster from various foods



Figures 1 and 2 adapted from Marcoe et al, 2006.

Table A 1. USDA Food Intake Patterns—recommended daily intake amounts. Table lists the daily amount[1] of food from each group in cup or ounce equivalents. Vegetable subgroup amounts are per week

Energy Level of Pattern (kcal)[2]	1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200
Food Group												
Fruits	1 c	1 c	1½ c	1½ c	1½ c	2 c	2 c	2 c	2 c	2½ c	2½ c	2½ c
Vegetables	1 c	1½ c	1½ c	2 c	2½ c	2½ c	3 c	3 c	3½ c	3½ c	4 c	4 c
Dark green vegetables	½ c/wk	1 c/wk	1 c/wk	1½ c/wk	1½ c/wk	1½ c/wk	2 c/wk	2 c/wk	2½ c/wk	2½ c/wk	2½ c/wk	2½ c/wk
Red/Orange vegetables	2½ c/wk	3 c/wk	3 c/wk	4 c/wk	5½ c/wk	5½ c/wk	6 c/wk	6 c/wk	7 c/wk	7 c/wk	7½ c/wk	7½ c/wk
Dry beans and peas	½ c/wk	½ c/wk	½ c/wk	1 c/wk	1½ c/wk	1½ c/wk	2 c/wk	2 c/wk	2½ c/wk	2½ c/wk	3 c/wk	3 c/wk
Starchy vegetables	2 c/wk	3½ c/wk	3½ c/wk	4 c/wk	5 c/wk	5 c/wk	6 c/wk	6 c/wk	7 c/wk	7 c/wk	8 c/wk	8 c/wk
Other vegetables	1½ c/wk	2½ c/wk	2½ c/wk	3½ c/wk	4 c/wk	4 c/wk	5 c/wk	5 c/wk	5½ c/wk	5½ c/wk	7 c/wk	7 c/wk
Grains	3 oz eq	4 oz eq	5 oz eq	5 oz eq	6 oz eq	6 oz eq	7 oz eq	8 oz eq	9 oz eq	10 oz eq	10 oz eq	10 oz eq
Whole grains	1½ oz eq	2 oz eq	2½ oz eq	3 oz eq	3 oz eq	3 oz eq	3½ oz eq	4 oz eq	4½ oz eq	5 oz eq	5 oz eq	5 oz eq
Other grains	1½ oz eq	2 oz eq	2½ oz eq	2 oz eq	3 oz eq	3 oz eq	3½ oz eq	4 oz eq	4½ oz eq	5 oz eq	5 oz eq	5 oz eq
Meat and beans	2 oz eq	3 oz eq	4 oz eq	5 oz eq	5 oz eq	5½ oz eq	6 oz eq	6½ oz eq	6½ oz eq	7 oz eq	7 oz eq	7 oz eq
Milk	2 c	2 c	2 c	3 c	3 c	3 c	3 c	3 c	3 c	3 c	3 c	3 c
Oils	15 g	17 g	17 g	22 g	24 g	27 g	29 g	31 g	34 g	36 g	44 g	51g
Limits on SoFAS	137 kcal	137 kcal	137 kcal	121 kcal	161 kcal	258 kcal	266 kcal	330 kcal	362 kcal	395 kcal	459 kcal	596 kcal

[1]Food group amounts shown in cup (c) or ounce equivalents (oz eq). Oils are shown in grams (g). Quantity equivalents for each food group are:

- Grains, 1 ounce equivalent is: ½ cup cooked rice, pasta, or cooked cereal; 1 ounce dry pasta or rice; 1 slice bread; 1 small muffin (1 oz); 1 cup RTE cereal flakes.
- Fruits and vegetables, 1 cup equivalent is: 1 cup raw or cooked fruit or vegetable, 1 cup fruit or vegetable juice, 2 cups leafy salad greens.
- Meat and beans, 1 ounce equivalent is: 1 ounce lean meat, poultry, or fish; 1 egg; ¼ cup cooked dry beans or tofu; 1 Tbsp peanut butter; ½ ounce nuts or seeds.
- Milk, 1 cup equivalent is: 1 cup milk or yogurt, 1½ ounces natural cheese such as Cheddar cheese or 2 ounces of processed cheese.

[2]Food intake patterns at 1000, 1200, and 1400 calories are designed to meet the nutritional needs of 2- to 8-year-old children. Patterns from 1600 to 3200 calories are designed to meet the nutritional needs of children 9 and older and adults. If a child 2 to 8 years of age needs more calories and, therefore, is following a pattern at 1600 calories or more, his recommended amount from the milk group can be 2 cups per day. Children 9 and older and adults should not use the 1000, 1200, or 1400 calorie patterns.

Table A 2. Energy levels used for assignment of individuals to USDA Food Patterns

This table shows suggested energy intake for each age/sex group at three levels of physical activity. Energy intake levels (in kcal) are provided for each year of childhood, from 2-18 years, and for adults in 5-year increments.

Age	Sedentary[1] Males	Moderately Active[2] Males	Active[3] Males	Age	Sedentary[1] Females	Moderately Active[2] Females	Active[3] Females
2	1000	1000	1000	2	1000	1000	1000
3	1000	1400	1400	3	1000	1200	1400
4	1200	1400	1600	4	1200	1400	1400
5	1200	1400	1600	5	1200	1400	1600
6	1400	1600	1800	6	1200	1400	1600
7	1400	1600	1800	7	1200	1600	1800
8	1400	1600	2000	8	1400	1600	1800
9	1600	1800	2000	9	1400	1600	1800
10	1600	1800	2200	10	1400	1800	2000
11	1800	2000	2200	11	1600	1800	2000
12	1800	2200	2400	12	1600	2000	2200
13	2000	2200	2600	13	1600	2000	2200
14	2000	2400	2800	14	1800	2000	2400
15	2200	2600	3000	15	1800	2000	2400
16	2400	2800	3200	16	1800	2000	2400
17	2400	2800	3200	17	1800	2000	2400
18	2400	2800	3200	18	1800	2000	2400
19-20	2600	2800	3000	19-20	2000	2200	2400
21-25	2400	2800	3000	21-25	2000	2200	2400
26-30	2400	2600	3000	26-30	1800	2000	2400
31-35	2400	2600	3000	31-35	1800	2000	2200
36-40	2400	2600	2800	36-40	1800	2000	2200
41-45	2200	2600	2800	41-45	1800	2000	2200
46-50	2200	2400	2800	46-50	1800	2000	2200
51-55	2200	2400	2800	51-55	1600	1800	2200
56-60	2200	2400	2600	56-60	1600	1800	2200
61-65	2000	2400	2600	61-65	1600	1800	2000
66-70	2000	2200	2600	66-70	1600	1800	2000
71-75	2000	2200	2600	71-75	1600	1800	2000
76 and up	2000	2200	2400	76 and up	1600	1800	2000

[1]Sedentary means a lifestyle that includes only the physical activity of independent living.
[2]Moderately Active means a lifestyle that includes physical activity equivalent to walking about 1.5 to 3 miles per day at 3 to 4 miles per hour, in addition to the activities of independent living.
[3]Active means a lifestyle that includes physical activity equivalent to walking more than 3 miles per day at 3 to 4 miles per hour, in addition to the activities of independent living.
Source: Britten et al., 2006.

Table A 3. Nutritional goals selected for each food pattern, based on the age/sex group(s) assigned to that pattern

Energy level of pattern (kcal)[1]		**1000**	**1200**	**1400**	**1600**	**1600**	**1800**	**1800**	**1800**	**2000**	**2000**	**2200**	**2200**	**2400**
Age/sex group		Child 1-3	Female 4-8	Male 4-8	Female 9-13	Female 51+	Male 9-13	Female 14-18	Female 31-50	Male 51+	Female 19-30	Male 14-18	Male 31-50	Male 19-30
Macronutrients	**Source of goal**													
Protein (g)	RDA[2]	13	19	19	34	46	34	46	46	56	46	52	56	56
(% of calories)	AMDR[3]	5-20	10-30	10-30	10-30	10-35	10-30	10-30	10-35	10-35	10-35	10-30	10-35	10-35
Carbohydrate (g)	RDA	130	130	130	130	130	130	130	130	130	130	130	130	130
(% of calories)	AMDR	45-65	45-65	45-65	45-65	45-65	45-65	45-65	45-65	45-65	45-65	45-65	45-65	45-65
Total Fiber (g)	14g/1000 kcal[4]	14	17	20	22	22	25	25	25	28	28	31	31	34
Total Fat (% kcal)	AMDR	30-40	25-35	25-35	25-35	20-35	25-35	25-35	20-35	20-35	20-35	25-35	20-35	20-35
Saturated Fat (% kcal)	DG[5]	<10%	<10%	<10%	<10%	<10%	<10%	<10%	<10%	<10%	<10%	<10%	<10%	<10%
Linoleic Acid (g)	AI[6]	7	10	10	10	11	12	11	12	14	12	16	17	17
(% kcal)	AMDR	5-10	5-10	5-10	5-10	5-10	5-10	5-10	5-10	5-10	5-10	5-10	5-10	5-10
α-Linolenic Acid (g)	AI	0.7	0.9	0.9	1	1.1	1.2	1.1	1.1	1.6	1.1	1.6	1.6	1.6
(% kcal)	AMDR	0.6-1.2	0.6-1.2	0.6-1.2	0.6-1.2	0.6-1.2	0.6-1.2	0.6-1.2	0.6-1.2	0.6-1.2	0.6-1.2	0.6-1.2	0.6-1.2	0.6-1.2
Cholesterol (mg)	DG	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300	<300
Minerals														
Calcium (mg)	AI	500	800	800	1300	1200	1300	1300	1000	1200	1000	1300	1000	1000
Iron (mg)	RDA	7	10	10	8	8	8	15	18	8	18	11	8	8
Magnesium (mg)	RDA	80	130	130	240	320	240	360	320	420	310	410	420	400
Phosphorus (mg)	RDA	460	500	500	1250	700	1250	1250	700	700	700	1250	700	700
Potassium (mg)	AI	3000	3800	3800	4500	4700	4500	4700	4700	4700	4700	4700	4700	4700
Sodium (mg)	UL[7]	<1500	<1900	<1900	<2200	<2300	<2200	<2300	<2300	<2300	<2300	<2300	<2300	<2300
Zinc (mg)	RDA	3	5	5	8	8	8	9	8	11	8	11	11	11
Copper (µg)	RDA	340	440	440	700	900	700	890	900	900	900	890	900	900
Selenium (µg)	RDA	20	30	30	40	55	40	55	55	55	55	55	55	55

(Table continues on next page.)

Table A 3. Nutritional goals selected for each food pattern, based on the age/sex group(s) assigned to that pattern—continued

Energy level of pattern[1]		1000	1200	1400	1600	1600	1800	1800	1800	2000	2000	2200	2200	2400
Age/sex group		Child 1-3	Female 4-8	Male 4-8	Female 9-13	Female 51+	Male 9-13	Female 14-18	Female 31-50	Male 51+	Female 19-30	Male 14-18	Male 31-50	Male 19-30
Vitamins	Source of goal													
Vitamin A (µg RAE)	RDA	300	400	400	600	700	600	700	700	900	700	900	900	900
Vitamin E (mg AT)	RDA	6	7	7	11	15	11	15	15	15	15	15	15	15
Vitamin D (IU)	RDA	200	200	200	200	400	200	200	200	400	200	200	200	200
Vitamin C (mg)	RDA	15	25	25	45	75	45	65	75	90	75	75	90	90
Thiamin (mg)	RDA	0.5	0.6	0.6	0.9	1.1	0.9	1	1.1	1.2	1.1	1.2	1.2	1.2
Riboflavin (mg)	RDA	0.5	0.6	0.6	0.9	1.1	0.9	1	1.1	1.3	1.1	1.3	1.3	1.3
Niacin (mg)	RDA	6	8	8	12	14	12	14	14	16	14	16	16	16
Vitamin B6 (mg)	RDA	0.5	0.6	0.6	1	1.5	1	1.2	1.3	1.7	1.3	1.3	1.3	1.3
Vitamin B12 (µg)	RDA	0.9	1.2	1.2	1.8	2.4	1.8	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Choline (mg)	AI	200	250	250	375	425	375	400	425	550	425	550	550	550
Vitamin K (µg)	AI	30	55	55	60	90	60	75	90	120	90	75	120	120
Folate (µg DFE)	RDA	150	200	200	300	400	300	400	400	400	400	400	400	400

[1]Food patterns at 2600, 2800, 3000, and 3200 calories were designed to meet the needs of males 14 to 18 and 19 to 30. Their nutritional goals are the same as for the patterns at 2200 and 2400 calories.

[2] Recommended Dietary Allowance, IOM[7-12]

[3]Acceptable Macronutrient Distribution Range, IOM[7-12]

[4] 14 grams per 1000 calories, based on AI calculations, see text

[5] Dietary Guidelines recommendation

[6] Adequate Intake, IOM[7-12]

[7] Upper Limit, IOM[7-12]

Source: Adapted from Britten et al., 2006.

Table A 4. Nutrients in the USDA food patterns at each energy level

Energy Level (kcal)		1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200
Nutrient	**Units**												
Energy	kcal	992	1200	1389	1602	1797	1997	2190	2384	2583	2795	2985	3182
Protein	g	44	55	65	83	87	91	100	106	111	118	120	120
Carbohydrate	g	128	155	184	203	234	260	287	312	343	376	396	412
Fiber, total dietary	g	14	17	21	25	28	30	34	37	41	44	47	48
Total lipid (fat)	g	36	43	47	55	61	71	77	86	92	99	111	126
Sat. Fat	g	9.7	11.2	12.3	14.0	15.8	18.7	20.1	22.5	24.0	25.7	28.4	32.6
Mono. Fat	g	13.1	15.7	17.3	20.0	22.4	26.1	28.4	31.4	33.8	36.2	40.7	46.1
Poly. Fat	g	10.9	12.8	13.7	16.4	18.2	20.9	22.8	25.0	27.2	29.1	33.5	38.2
Linoleic acid	g	9.8	11.5	12.3	14.7	16.3	18.7	20.4	22.4	24.4	26.2	30.2	34.4
Linolenic acid	g	0.98	1.13	1.19	1.45	1.63	1.85	2.03	2.20	2.42	2.57	3.01	3.42
Cholesterol	mg	94	129	164	206	208	229	248	268	271	290	292	298
Calcium	mg	751	803	849	1184	1221	1235	1290	1323	1374	1416	1434	1435
Iron	mg	8	10	13	15	16	17	20	21	24	26	26	26
Magnesium	mg	169	212	250	310	336	351	394	418	457	491	509	509
Phosphorus	mg	886	1052	1195	1562	1643	1690	1836	1932	2046	2156	2203	2204
Potassium	mg	1667	2059	2374	2971	3272	3478	3836	3945	4275	4544	4780	4781
Sodium	mg	885	1088	1265	1527	1666	1722	1883	2028	2153	2296	2329	2353
Zinc	mg	7	9	10	13	14	14	16	17	18	19	20	20
Copper	µg	0.651	0.851	1.014	1.212	1.376	1.446	1.635	1.727	1.900	2.037	2.132	2.132
Selenium	µg	49	64	79	95	101	106	117	127	134	144	145	145
Vitamin A	µg RAE	447	527	569	756	820	851	930	969	1056	1098	1133	1160
Vitamin E	mg AT	4.0	4.9	5.4	6.7	7.6	8.3	9.1	9.6	10.6	11.2	12.5	13.5
Vitamin D	IU	155	166	177	249	252	258	266	275	279	287	289	293
Vitamin C	mg	58	70	89	100	108	126	137	138	149	168	175	175
Thiamin	mg	0.9	1.1	1.3	1.5	1.7	1.8	2.0	2.2	2.4	2.6	2.7	2.7
Riboflavin	mg	1.2	1.4	1.6	2.0	2.2	2.2	2.4	2.6	2.7	2.9	2.9	2.9
Niacin	mg	10	14	17	20	22	23	26	28	30	33	33	33
Vitamin B-6	mg	1.1	1.4	1.7	2.0	2.2	2.3	2.6	2.8	3.0	3.2	3.4	3.4
Vitamin B-12	µg	3.3	4.0	4.7	6.1	6.3	6.5	7.0	7.4	7.6	8.0	8.1	8.1
Choline, total	mg	155	200	238	304	320	340	372	391	410	434	446	447
Vitamin K	µg	58	89	92	125	134	140	175	180	211	216	233	243
Folate, DFE	µg DFE	295	387	467	534	614	628	736	803	906	983	1015	1015

Table A 5. Comparison of nutrient content of each food pattern to the nutritional goals for that pattern, as a percent of the goal

Energy Level of Food Intake Pattern (kcal)		1000	1200	1400	1600	1600	1800	1800	1800	2000	2000	2200	2200	2400	2600	2800	3000	3200
Age/gender group for comparison		Child 1-3	M/F 4-8	M/F 4-8	M/F 9-13	F 51-70	M/F 9-13	F 14-18	F 31-50	F 19-30	M 51-70	M 14-18	M 31-50	M 19-30	M 19-30	M 14-18	M 19-30	M 14-18
Macronutrients																		
Protein	**% RDA**	335	287	340	243	180	256	189	189	198	163	192	178	189	198	226	214	230
Protein	**% kcal**	18	18	19	21	21	19	19	19	18	18	18	18	18	17	17	16	15
Carbohydrate	**% RDA**	99	119	142	157	157	180	180	180	200	200	221	221	240	264	289	304	317
Carbohydrate	**% kcal**	52	52	53	51	51	52	52	52	52	52	52	52	52	53	54	53	52
Fiber, total dietary	**% AI**	97	104	105	110	110	112	112	112	106	106	112	112	109	113	113	112	106
Total fat	**% kcal**	33	32	31	31	31	31	31	31	32	32	32	32	32	32	32	33	36
Sat. Fat	**% kcal**	9	8	8	8	8	8	8	8	8	8	8	8	8	8	8	9	9
Mono. Fat	**% kcal**	12	12	11	11	11	11	11	11	12	12	12	12	12	12	12	12	13
Poly. Fat	**% kcal**	10	10	9	9	9	9	9	9	9	9	9	9	9	9	9	10	11
Linoleic acid	**% AI**	140	115	123	147	133	136	149	136	156	134	128	120	132	144	164	177	188
Linolenic acid	**% AI**	140	126	132	145	132	135	148	148	168	116	127	127	137	151	161	188	188
Cholesterol	**% DV**	31	43	55	69	69	69	69	69	76	76	83	83	89	90	97	97	99
Minerals																		
Calcium	**% AI**	150	100	106	91	99	94	94	122	124	103	99	129	132	137	109	143	110
Iron	**% RDA**	110	104	126	182	182	206	110	91	94	211	177	244	266	297	234	331	241
Magnesium	**% RDA**	211	163	193	129	97	140	93	105	113	83	96	94	104	114	120	127	124
Phosphorus	**% RDA**	193	210	239	125	223	131	131	235	241	241	147	262	276	292	173	315	176
Potassium	**% AI**	56	54	62	66	63	73	70	70	74	74	82	82	84	91	97	102	102
Sodium	**% UL**	59	57	67	69	66	76	72	72	75	75	82	82	88	94	100	101	102
Zinc	**% RDA**	231	176	210	166	166	173	154	173	179	130	144	144	155	165	177	180	180
Copper	**% RDA**	191	194	231	173	135	197	155	153	161	161	184	182	192	211	229	237	240
Selenium	**% RDA**	247	214	262	237	172	253	184	184	192	192	212	212	231	243	262	264	264

(Table continues on next page.)

Table A 5. Comparison of nutrient content of each food intake pattern to the nutritional goals for that pattern, as a percent of the goal—continued

Energy Level of Food Intake Pattern (kcal)		1000	1200	1400	1600	1600	1800	1800	1800	2000	2000	2200	2200	2400	2600	2800	3000	3200
Age/gender group for comparison		Child 1-3	M/F 4-8	M/F 4-8	M/F 9-13	F 51-70	M/F 9-13	F 14-18	F 31-50	F 19-30	M 51-70	M 14-18	M 31-50	M 19-30	M 19-30	M 14-18	M 19-30	M 14-18
Vitamins																		
Vitamin A	**% RDA**	149	132	142	126	108	137	117	117	122	95	103	103	108	117	122	126	129
Vitamin E	**% RDA**	67	70	77	61	45	69	50	50	55	55	61	61	64	71	75	84	90
Vitamin D	**AI**	77	83	89	125	62	126	126	126	129	64	133	133	137	140	144	145	146
Vitamin C	**% RDA**	388	279	356	222	133	240	166	144	168	140	183	153	153	166	224	195	234
Thiamin	**% RDA**	172	186	224	171	140	193	174	158	164	150	170	170	184	202	219	225	225
Riboflavin	**% RDA**	239	234	269	226	185	241	217	197	203	172	186	186	197	208	221	224	224
Niacin	**% RDA**	165	172	214	165	141	181	155	155	163	143	161	161	175	188	204	208	208
Vitamin B-6	**% RDA**	213	233	280	202	134	220	183	169	180	137	201	201	213	231	249	259	261
Vitamin B-12	**% RDA**	371	335	390	341	256	347	261	261	272	272	290	290	308	317	335	337	340
Choline	**% AI**	78	80	95	81	72	85	80	75	80	62	68	68	71	74	79	81	81
Vitamin K	**% AI**	193	162	167	209	139	223	178	149	156	117	234	146	150	176	288	194	324
Folate	**% RDA**	197	193	234	178	134	205	154	154	157	157	184	184	201	226	246	254	254

Table A 6. Comparison of amount of potassium in 2010 patterns to 2005 patterns, shown as the change in potassium level (in mg) from 2005 pattern to 2010 pattern

Energy level of pattern (kcal)	1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200
FOOD GROUP												
FRUITS	-105	-105	-158	-158	-158	-210	-210	-210	-210	-263	-263	-263
VEGETABLES												
Dark-green	-37	-41	-41	-44	-111	-111	-78	-78	-49	-49	-49	-49
Red/Orange	151	155	155	197	275	275	312	312	354	354	390	390
Dry Beans and Peas	3	-52	-52	-151	-152	-152	-99	-99	-96	-96	-43	-43
Starchy	58	113	113	158	205	205	52	52	60	60	-13	-13
Other veg.	-106	-114	-114	-123	-151	-151	-137	-137	-186	-186	-200	-200
All vegetables	68	61	61	37	67	67	51	51	83	83	85	85
GRAINS												
Whole grains	9	12	16	19	19	19	22	25	28	31	31	31
Other grains	0	0	0	0	0	0	0	0	0	0	0	0
MEAT AND BEANS	-1	-2	-2	-3	-3	-3	-4	-4	-4	-4	-4	-4
MILK	-291	-291	-291	-436	-436	-436	-436	-436	-436	-436	-436	-436
PATTERN TOTAL	-321	-326	-376	-542	-513	-566	-580	-578	-542	-592	-591	-591

Table B 1. Item Clusters and Representative Foods for 2010 USDA Food Patterns and Food Pattern Modeling Analyses

Item Cluster	"Ideal" Representative Food
Grain Group	
Non-Whole Grain Subgroup	
White bread	Bread, white, commercially prepared (includes soft bread crumbs)
Flour-based sweet snacks and desserts	Cookies, animal crackers (includes arrowroot, tea biscuits)
Quick bread	Pancakes, plain, frozen, ready-to-heat (includes buttermilk)
White rice	Rice, white, long-grain, regular, cooked
Pasta	Spaghetti, cooked, enriched, without added salt
Pretzels, crackers	Pretzels, hard, plain, made with enriched flour, unsalted
Biscuits	Biscuits, plain or buttermilk, refrigerated dough, lower fat, baked
Corn tortilla	Tortillas, ready-to-bake or -fry, corn
Bagels, English muffins	Bagels, plain, enriched, with calcium propionate (includes onion, poppy, sesame)
French bread	Bread, French or Vienna (includes sourdough)
Wheat flour tortilla	Tortillas, ready-to-bake or -fry, flour
Ready-to-eat cereal	Cereals ready-to-eat, Kellogg's Corn Flakes
Cornstarch as thickener	Cornstarch
Flour as thickener	Wheat flour, white, all-purpose, enriched, bleached
Breading, stuffing	Bread, white, commercially prepared (includes soft bread crumbs)
White roll	Rolls, hamburger or hotdog, plain
Pizza crust	Bread, pita, white, enriched
Pie crust	Pie crust, standard-type, frozen, ready-to-bake, enriched, baked
Cooked cereal	Cereals, corn grits, white, regular and quick, enriched, cooked with water, without salt
Whole Grain Subgroup	
Whole-wheat crackers	100% whole-wheat cracker, reduced fat
Rye bread	Rye bread
Whole-wheat bread	100% whole wheat bread
Whole grain pasta	Whole-wheat spaghetti, fat not added in cooking
Whole grains in snacks and desserts	Oats, regular and quick and instant, not fortified, dry
Whole grain rolls (not sweet)	100% whole-wheat roll
Whole grain bagels, English muffins	English muffins, whole-wheat
Brown rice	Brown rice, long-grain, cooked
Whole-wheat quick bread	Pancakes, whole-wheat, dry mix, incomplete, prepared
Popcorn	Popcorn, air-popped (no butter or oil)
Whole-wheat ready-to-eat cereals	100% Shredded Wheat, sugar and salt free
Cooked oatmeal and other cooked cereals	Oats, regular and quick and instant, unenriched, cooked with water, without salt
Oat ready-to-eat cereals	Cheerios

Table B 1. Item Clusters and Representative Foods for 2010 USDA Food Patterns and Food Pattern Modeling Analyses—continued

Item Cluster	"Ideal" Representative Food
FRUIT GROUP	
Oranges, raw (Includes orange peel)	Oranges, raw, all varieties
Strawberries, raw	Strawberries, raw
Strawberries, cooked or canned (Includes dried)	Strawberries, frozen, unsweetened
Cantaloupe, raw	Melons, cantaloupe, raw
Watermelon, raw	Watermelon, raw
Grapefruit, raw	Grapefruit, raw, pink & red & white, all areas
Grapefruit, cooked or canned	Grapefruit, sections, canned, water pack, solids & liquids
Lemons, raw or cooked (Includes lemon peel & citron)	Lemons, raw, without peel
Cantaloupe Juice/Nectar	Melons, cantaloupe, raw
Unknown Citrus Fruit Juice	Orange juice, chilled, includes from concentrate
Mixed Fruit Juice (Citrus)	Orange juice, chilled, includes from concentrate
Apples, raw	Apples, raw, with skin
Apples, cooked or canned	Applesauce, canned, unsweetened, without Vitamin C
Applesauce	Applesauce, canned, unsweetened, without Vitamin C
Apples, dried	Apples, dried, sulfured, uncooked
Apricot, raw	Apricots, raw
Apricot, cooked or canned	Apricots, canned, water pack, without skin, solids and liquids
Apricot, dried	Apricots, dried, sulfured, uncooked
Bananas, raw (Includes white, red, Chinese, and apple types)	Bananas, raw
Bananas, cooked or canned (Includes red type)	Bananas, raw
Bananas, dried	Bananas, dehydrated, or banana powder
Dates, raw and cooked	Dates, deglet noor
Figs, raw	Figs, raw
Figs, cooked or canned	Figs, canned, water pack, solids and liquids
Figs, dried	Figs, dried, uncooked
Guava, raw	Guavas, common, raw
Guava, cooked or canned	Guavas, common, raw
Lychee, raw	Litchis, raw
Mango, raw	Mangos, raw
Mango, dried	Mangos, raw
Mango, cooked or canned	Mangos, raw
Nectarine, raw	Nectarines, raw
Papaya, raw	Papayas, raw
Papaya, dried	Papayas, raw
Papaya, cooked or canned (Includes green)	Papayas, raw

Table B 1. Item Clusters and Representative Foods for 2010 USDA Food Patterns and Food Pattern Modeling Analyses—continued

Item Cluster	"Ideal" Representative Food
Fruit Group (cont'd)	
Pineapple, raw	Pineapple, raw, all varieties
Pineapple, cooked or canned	Pineapple, canned, water pack, solids and liquids
Pineapple, dried	Pineapple, raw, all varieties
Peaches, raw	Peaches, raw
Peaches, cooked or canned	Peaches, canned, water pack, solids and liquids
Peaches, dried	Peaches, dried, sulfured, uncooked
Pomegranate, raw	Pomegranates, raw
Raisins, raw (Includes raw & dried currants)	Raisins, seedless
Raisins, cooked or canned	Raisins, seedless
Rhubarb, cooked or canned	Rhubarb, raw
Grapes, raw	Grapes, red/green (European type), raw
Grapes, cooked or canned	Grapes, canned, Thompson seedless, water pack, solids and liquids
Pears, raw	Pears, raw
Pears, cooked or canned	Pears, canned, water pack, solids and liquids
Pears, dried	Pears, dried, sulfured, uncooked
Japanese Pears, raw	Pears, Asian, raw
Persimmons, raw	Persimmons, native, raw
Plums, raw	Plums, raw
Plums, dried (include dried prunes)	Plums, dried (prunes), uncooked
Plums/Prunes, cooked or canned	Plums, canned, purple, water pack, solids and liquids
Star Fruit (Carambola), raw	Carambola, (starfruit), raw
Cherries, raw	Cherries, sweet, raw
Cherries, cooked or canned (Includes maraschino)	Cherries, sour, red, canned, water pack, solids and liquids
Tamarind, raw or cooked	Tamarinds, raw
Unknown Other Fruit	Applesauce, canned, unsweetened, without Vitamin C
Mixed Other Fruit (NOT citrus)	Applesauce, canned, unsweetened, without Vitamin C
Apple Juice	Apple juice, canned/bottled, unsweetened, without Vitamin C
Grape Juice	Grape juice, canned/bottled, unsweetened, without Vitamin C
Passion Fruit Juice/Nectar	Passion-fruit juice, yellow, raw
Pineapple Juice	Pineapple juice, canned, unsweetened, without Vitamin C
Pear Juice/Nectar	Babyfood, juice, pear
Papaya Juice/Nectar	Papaya nectar, canned
Peach Juice/Nectar	Peach nectar, canned, without Vitamin C
Guava Juice/Nectar	Guava nectar, canned
Prune Juice	Prune juice, canned
Apricot Juice/Nectar	Apricot nectar, canned, without Vitamin C
Banana Juice/Nectar	Bananas, raw

Table B 1. Item Clusters and Representative Foods for 2010 USDA Food Patterns and Food Pattern Modeling Analyses—continued

Item Cluster	"Ideal" Representative Food
Fruit Group (cont'd)	
Mango Juice/Nectar	Mango nectar, canned
Cherry Juice	Cherries, sweet, raw
Mixed Fruit Juice (NOT citrus)	Apple juice, canned/bottled, unsweetened, without Vitamin C
Unknown Other Fruit Juice	Apple juice, canned/bottled, unsweetened, without Vitamin C
VEGETABLE GROUP	
Dry Beans and Peas Subgroup	
Kidney Beans	Beans, kidney, all types, mature seeds, cooked, boiled, without salt
Chickpeas	Chickpeas, mature seeds, cooked, boiled, without salt
White beans (Includes navy and pea beans)	Beans, small white, mature seeds, cooked, boiled, without salt
Black beans	Beans, black, mature seeds, cooked, boiled, without salt
Pinto beans (Includes pink beans)	Beans, pinto, mature seeds, cooked, boiled, without salt
Lima beans (mature) (Includes fava and mung beans)	Lima beans, large, mature seeds, cooked, boiled, without salt
Split Peas	Peas, split, mature seeds, cooked, boiled, without salt
Lentils	Lentils, mature seeds, cooked, boiled, without salt
Cowpeas	Cowpeas, common, mature seeds, cooked, boiled, without salt
Soybeans/Edamame	Soybeans, mature cooked, boiled, without salt
Unknown legume	Beans, small white, mature seeds, cooked, boiled, without salt
Starchy Vegetables Subgroup	
Corn (yellow)	Corn, sweet, yellow, cooked, boiled, drained, without salt
Potatoes, boiled (Includes breadfruit)	Potatoes, boiled, cooked without skin, flesh, without salt
Potatoes, baked	Potatoes, white, flesh and skin, baked, without salt
Green Peas, cooked and raw	Peas, green, cooked, boiled, drained, without salt
French Fries	Potatoes, French fried, all types, salt not added in processing, frozen, oven heated
Potato Chips/Puffs/Sticks	Snacks, potato chips, fat free, salted
Home Fries/Hash Browns	Potatoes, hashed brown, frozen, plain, prepared
Cassava (Tapioca) (Includes taro, burdock root, and white yam)	Cassava, raw
Corn (white) (Includes hominy)	Corn, sweet, white, cooked, boiled, drained, without salt
Lima Beans (immature)	Lima beans, immature seeds, cooked, boiled, drained, without salt
Cooked Cowpeas, Field Peas, Blackeye Peas (NOT dried) (Includes pigeon peas)	Cowpeas, immature seeds, cooked, boiled, drained, without salt
Vegetable starches and unknown starchy veg.	Potato Flour
Cooked Waterchestnuts (Includes lotus root)	Waterchestnuts, Chinese, canned, solids and liquids
Plantains	Plantains, cooked

Table B 1. Item Clusters and Representative Foods for 2010 USDA Food Patterns and Food Pattern Modeling Analyses—continued

Item Cluster	"Ideal" Representative Food
Dark Green Vegetables Subgroup	
Cooked Broccoli	Broccoli, cooked, boiled, drained, without salt
Cooked Spinach (Includes taro leaves)	Spinach, cooked, boiled, drained, without salt
Cooked Mustard Greens (Includes dandelion and poke greens)	Mustard greens, cooked, boiled, drained, without salt
Cooked Collard Greens	Collards, cooked, boiled, drained, without salt
Mixed Dark Leafy Greens (includes Romaine, Chicory, Escarole, and Endive)	Lettuce, cos or romaine, raw
Cooked Kale (Includes lambsquarters, mustard cabbage, raw and cooked beet greens, bitter melon leaves, horseradish leaves, and jute leaves)	Kale, cooked, boiled, drained, without salt
Cooked Turnip Greens	Turnip greens, cooked, boiled, drained, without salt
Raw Spinach	Spinach, raw
Raw Broccoli	Broccoli, raw
Parsley, cooked and raw (Includes epazote)	Parsley, raw
Cilantro, raw and cooked	Coriander (cilantro) leaves, raw
Unknown dark green veg.	Parsley, raw
Watercress (Includes thistle leaves)	Watercress, raw
Chard, cooked (Includes escarole)	Chard, Swiss, cooked, boiled, drained, without salt
Raw Seaweed (Laver), high in Vit. A	Seaweed, laver, raw
Raw Arugula Lettuce	Arugula, raw
Grape Leaves, ckd and raw	Grape leaves, raw
Bok Choy (Chinese Cabbage)	Cabbage, Chinese (pak-choi), cooked, boiled, drained, without salt
Raw Butterhead Lettuce (Boston, Bibb)	Lettuce, butterhead (includes Boston and bibb types), raw
Red/Orange Vegetables Subgroup	
Cooked Carrots	Carrots, cooked, boiled, drained, without salt
Cooked Pumpkin	Pumpkin, canned, without salt
Cooked Sweet Potatoes/orange yams	Sweet potato, cooked, baked in skin, without salt
Cooked Winter Squash	Squash, winter, all varieties, cooked, baked, without salt
Raw Carrots	Carrots, raw
Unknown red/orange veg.	Carrots, cooked, boiled, drained, without salt
Carrot Juice	Carrot juice, canned
Raw Tomatoes	Tomatoes, red, ripe, raw, year round average
Cooked Tomatoes	Tomato products, canned, puree, without salt added
Tomato Juice	Tomato juice, canned, without salt added
Red Peppers (sweet, bell), cooked and raw (Includes pimentos)	Peppers, sweet, red, cooked, boiled, drained, without salt
Chili Pepper, hot, red, cooked and raw (Includes color not specified)	Peppers, hot chili, red, raw

Table B 1. Item Clusters and Representative Foods for 2010 USDA Food Patterns and Food Pattern Modeling Analyses—continued

Item Cluster	"Ideal" Representative Food
Other Vegetables Subgroup	
Green Cabbage, raw and cooked (Includes savoy cabbage; sweet potato, squash, & pumpkin leaves)	Cabbage, raw
Raw Celery	Celery, raw
Cucumber (Includes flowers of sesbania, squash, lily, pumpkin)	Cucumber, peeled, raw
Lettuce (Includes Iceberg, manoa)	Lettuce, iceberg, raw
Raw Onions (bulbs)	Onions, raw
Raw Green Peppers (sweet, bell) (Includes color not specified)	Peppers, sweet, green, raw
Green Beans, cooked and raw (Includes snap and yellow beans)	Beans, snap, green, cooked, boiled, drained, without salt
Cooked Green Cabbage	Cabbage, cooked, boiled, drained, without salt
Cauliflower, cooked and raw (Includes broccoflower)	Cauliflower, cooked, boiled, drained, without salt
Cooked Celery	Celery, cooked, boiled, drained, without salt
Mushrooms, cooked and raw (Includes shiitake)	Mushrooms, white, cooked, boiled, drained, without salt
Cooked Onions (includes Leeks)	Onions, cooked, boiled, drained, without salt
Summer Squash, cooked &raw, yellow &zucchini (Includes spaghetti squash, chayote, bitter, winter melons)	Squash, summer, all varieties, cooked, boiled, drained, without salt
Cucumber Pickles (Includes relish and capers)	Pickles, cucumber, dill, low sodium
Olives (raw or cooked)	Olives, ripe, canned (small-extra large)
Garlic, cooked and raw	Garlic, raw
Mungbeans, sprouted, cooked and raw (Includes alfalfa and buckwheat sprouts)	Mung beans, mature seeds, sprouted, cooked, boiled, drained, without salt
Cooked Green Peppers (sweet, bell)	Peppers, sweet, green, cooked, boiled, drained, without salt
Raw Radishes	Radishes, raw
Spring Onions/Scallions, cooked and raw	Onions, spring or scallions (includes tops and bulb), raw
Cooked Eggplant (Includes hearts of palm)	Eggplant, cooked, boiled, drained, without salt
Cooked Beets	Beets, cooked, boiled, drained, without salt
Unknown other vegetables	Onions, cooked, boiled, drained, without salt
Horseradish (Includes ginger root)	Horseradish, prepared
Chives, cooked and raw	Chives, raw
Chili Pepper, hot, green, cooked and raw (Includes serrano and dwarf green)	Peppers, hot chili, green, raw
Miscellaneous Additional Vegetables	Seaweed, wakame, raw
Cooked Okra (Includes horseradish pods)	Okra, cooked, boiled, drained, without salt
Cooked Bamboo Shoots	Bamboo shoots, cooked, boiled, drained, without salt

Table B 1. Item Clusters and Representative Foods for 2010 USDA Food Patterns and Food Pattern Modeling Analyses—continued

Item Cluster	"Ideal" Representative Food
Other Vegetables Subgroup, cont'd.	
Turnips, cooked and raw (Includes rutabaga, jicama, kohlrabi, celeriac, fennel bulb)	Turnips, cooked, boiled, drained, without salt
Tomatillos, cooked and raw	Tomatillos, raw
Raw Red Cabbage (Includes radicchio)	Cabbage, red, raw
Edible-pod Green Peas, cooked and raw (Includes snowpeas, fern shoots)	Peas, edible-podded, boiled, drained, without salt
Artichoke	Artichokes, cooked, boiled, drained, without salt
Asparagus, cooked and raw	Asparagus, cooked, boiled, drained, without salt
Brussels Sprouts	Brussels sprouts, cooked, boiled, drained, without salt
Cactus (Nopales), cooked and raw	Nopales, cooked, without salt
Avocado	Avocados, raw, all commercial varieties
MEAT AND BEANS GROUP	
Meats Subgroup	
Beef	Beef, round, eye of round, roast, separable lean only, trimmed to 1/8" fat, all grades, cooked, roasted
Pork, fresh	Pork, fresh, loin, sirloin (chops), boneless, lean, cooked, broiled
Pork, cured	Pork, cured, ham, whole, separable lean only, roasted
Lamb	Lamb, domestic, leg, whole (shank and sirloin), separable lean only, trimmed to 1/4" fat, choice, roasted
Luncheon meats, beef	Frankfurter, beef, low fat
Liver	Beef, liver, pan-fried
Luncheon meats, pork	Ham, sliced, extra lean
Beef, ground	Ground beef, 95% lean, patty, pan-broiled
Game meat	Deer, loin, separable lean only, 1" steak, broiled
Poultry Subgroup	
Luncheon meats, poultry	Chicken roll, light meat
Chicken	Chicken, meat only, roasted
Turkey	Turkey, meat only, roasted
High Omega-3 Fish Subgroup	
Anchovy	Anchovy, European, canned in oil, drained
Herring	Herring, Atlantic, cooked, dry heat
Mackerel	Mackerel, Atlantic, cooked, dry heat
Salmon	Salmon, Atlantic, farmed, cooked, dry heat
Sardines	Sardine, Atlantic, canned in oil, drained solids with bone
Sea bass	Sea bass, mixed species, cooked, dry heat
Swordfish	Swordfish, cooked, dry heat
Trout	Trout, rainbow, farmed, cooked, dry heat
Roe	Roe, mixed species, cooked dry heat
Mussels	Mussel, blue, cooked, moist heat
Tuna-high Omega 3	Tuna, white, canned in water, drained solids
Shark	Shark, mixed species, raw
Smelt	Smelt, rainbow, cooked, dry heat

Table B 1. Item Clusters and Representative Foods for 2010 USDA Food Patterns and Food Pattern Modeling Analyses—continued

Item Cluster	"Ideal" Representative Food
Low Omega-3 Fish Subgroup	
Shrimp	Shrimp, cooked, moist heat
Unknown Fish	Pollock, Atlantic, cooked, dry heat
Fish sticks	Pollock, Atlantic, cooked, dry heat
Restructured fish	Pollock, Atlantic, cooked, dry heat
Carp	Carp, cooked, dry heat
Catfish	Catfish, channel, farmed, cooked, dry heat
Cod	Cod, Pacific, cooked, dry heat
Croaker	Croaker, Atlantic, raw
Flounder	Flatfish (flounder and sole), cooked, dry heat
Haddock	Haddock, cooked, dry heat
Mullet	Mullet, striped, cooked, dry heat
Perch	Ocean perch, Atlantic, cooked, dry heat
Pike	Pike, northern, cooked, dry heat
Pompano	Pompano, Florida, cooked, dry heat
Porgy	Sheepshead, cooked, dry heat
Tuna-low 0mega3	Tuna, light, canned in water, drained solids
Whiting	Fish, whiting, mixed species, cooked, dry heat
Frog	Frog legs, raw
Octopus/squid	Octopus, common, cooked, moist heat
Clams	Clams, mixed species, cooked, moist heat
Crab	Crab, blue, cooked, moist heat
Lobster	Lobster, northern, cooked, moist heat
Oysters	Oyster, Pacific, cooked, moist heat
Scallops	Scallops (bay and sea), cooked, steamed
Snapper	Snapper, mixed species, cooked, dry heat
Halibut	Halibut, Atlantic and Pacific, cooked, dry heat
Turtle/terrapin	Turtle, green, raw
Crayfish	Crayfish, mixed species, wild, cooked, moist heat
Snails	Snail, raw
Soy Subgroup	
Tofu	Tofu, firm, prepared with calcium sulfate and magnesium chloride
Processed Soy	Veggie burgers or soyburgers, unprepared
Egg Subgroup	
Eggs	Egg, whole, cooked, hard-boiled
Nuts and Seeds Subgroup	
Peanut butter	Peanut butter, smooth style, with salt
Peanuts, roasted without salt	Peanuts, all types, dry-roasted, without salt
Mixed nuts, roasted, with peanuts	Mixed nuts, dry roasted, with peanuts, without salt added
Walnuts	Walnuts, English

Table B 1. Item Clusters and Representative Foods for 2010 USDA Food Patterns and Food Pattern Modeling Analyses—continued

Item Cluster	"Ideal" Representative Food
Nuts and Seeds Subgroup, cont'd.	
Pecans	Pecans
Cashew nuts, roasted, without salt	Cashew nuts, dry roasted, without salt added
Pistachio nuts, roasted, without salt	Pistachio nuts, dry roasted, without salt added
Almonds, dry roasted, without salt	Almonds, dry roasted, without salt added
Sunflower seeds, roasted, without salt	Sunflower seed kernels, dry roasted, without salt
Sesame seeds	Sesame seed kernels, toasted, without salt added (decorticated)
Pine nuts	Pine nuts, dried
Pumpkin/squash seed kernels	Pumpkin and squash seed kernels, roasted, without salt
Brazil nuts	Brazilnuts, dried, unblanched
Chestnuts	Chestnuts, European, roasted
Filberts/hazelnuts	Hazelnuts or filberts
Macadamia nuts	Macadamia nuts, dry roasted, without salt added
Flax seeds	Flaxseed
MILK GROUP	
Unflavored cow milks, whole	Milk, nonfat, fluid, with added vitamin A and vitamin D (fat free or skim)
Unflavored cow milks, 2%	Milk, nonfat, fluid, with added vitamin A and vitamin D (fat free or skim)
Unflavored cow milks, 1%	Milk, nonfat, fluid, with added vitamin A and vitamin D (fat free or skim)
Unflavored cow milks, fat-free	Milk, nonfat, fluid, with added vitamin A and vitamin D (fat free or skim)
Low lactose, calcium-fortified, acidopholus, buttermilk, goat's milk & imitation milks, whole and not further specified (NFS)	Milk, nonfat, fluid, with added vitamin A and vitamin D (fat free or skim)
Low lactose, calcium-fortified, acidopholus, buttermilk, goat's milk & imitation milks, 2%	Milk, nonfat, fluid, with added vitamin A and vitamin D (fat free or skim)
Low lactose, calcium-fortified, acidopholus, buttermilk, goat's milk & imitation milks, 1% and fat-free	Milk, nonfat, fluid, with added vitamin A and vitamin D (fat free or skim)
Dry milks (reconstituted +not reconstituted) & evaporated milks, whole, reduced fat, and NFS	Milk, dry, nonfat, instant, with added vitamin A and vitamin D
Dry milks (reconstituted +not reconstituted) & evaporated milks, low fat and fat-free	Milk, dry, nonfat, instant, with added vitamin A and vitamin D
Milk NFS	Milk, nonfat, fluid, with added vitamin A and vitamin D (fat free or skim)
Flavored milks (chocolate milk, cocoa), whole	Milk, nonfat, fluid, with added vitamin A and vitamin D (fat free or skim)
Flavored milks (chocolate milk, cocoa), 2%	Milk, nonfat, fluid, with added vitamin A and vitamin D (fat free or skim)
Flavored milks (chocolate milk, cocoa), 1%	Milk, nonfat, fluid, with added vitamin A and vitamin D (fat free or skim)
Flavored milks (chocolate milk, cocoa), fat-free	Milk, nonfat, fluid, with added vitamin A and vitamin D (fat free or skim)
Flavored milks (chocolate milk, cocoa), NFS	Milk, nonfat, fluid, with added vitamin A and vitamin D (fat free or skim)
Milk in coffee drinks, lattes, etc.	Milk, nonfat, fluid, with added vitamin A and vitamin D (fat free or skim)

Table B 1. Item Clusters and Representative Foods for 2010 USDA Food Patterns and Food Pattern Modeling Analyses—continued

Item Cluster	"Ideal" Representative Food
MILK GROUP (CONT'D)	
Milk shakes, malted milk drinks, fruit-milk drinks/smoothies, fat-free	Milk, nonfat, fluid, with added vitamin A and vitamin D (fat free or skim)
Milk shakes, malted milk drinks, fruit-milk drinks/smoothies, NFS	Milk, nonfat, fluid, with added vitamin A and vitamin D (fat free or skim)
Meal supplements/replacement drinks/diet drinks	Milk, dry, nonfat, instant, with added vitamin A and vitamin D
Milk powder drinks (reconstituted +not reconstituted), milk in eggnog or other beverage	Milk, dry, nonfat, instant, with added vitamin A and vitamin D
Milk in soups	Milk, nonfat, fluid, with added vitamin A and vitamin D (fat free or skim)
Milk in casseroles, "mixtures," coatings/batters, frozen meals, main dishes & other dishes	Milk, nonfat, fluid, with added vitamin A and vitamin D (fat free or skim)
Milk in scrambled eggs/omelets	Milk, nonfat, fluid, with added vitamin A and vitamin D (fat free or skim)
Milk in mashed potatoes, creamed/sauced vegetables, cooked cereals, sauces, gravies, and salad dressings	Milk, nonfat, fluid, with added vitamin A and vitamin D (fat free or skim)
Milk in puddings (caloric & low calorie sweeteners) custards, milk-based desserts, other desserts, sweetened condensed milk	Milk, nonfat, fluid, with added vitamin A and vitamin D (fat free or skim)
Milk in candies and "bars"	Milk, dry, nonfat, instant, without added vitamin A and vitamin D
Ice cream (caloric and low calorie sweeteners), light and fat-free	Ice cream, vanilla, light
Ice cream (caloric sweeteners), regular and rich	Ice cream, vanilla, light
Ice cream sundaes, cones, sticks/bars/novelties (caloric & low calorie sweeteners), light and low fat	Ice cream, vanilla, light
Ice cream sundaes, cones, sticks/bars/novelties (caloric & low calorie sweeteners), regular, rich, NFS	Ice cream, vanilla, light
Frozen yogurt (caloric & low calorie sweeteners) and sherbet, regular, low fat, fat-free, and NFS	Frozen yogurts, chocolate, nonfat milk, sweetened without sugar
Unflavored yogurts, whole and NFS	Yogurt, plain, skim milk, 13 grams protein per 8 ounce
Unflavored yogurts, low fat	Yogurt, plain, skim milk, 13 grams protein per 8 ounce
Unflavored yogurts, fat-free	Yogurt, plain, skim milk, 13 grams protein per 8 ounce
Flavored yogurts (caloric sweeteners), low fat	Yogurt, vanilla or lemon flavor, nonfat milk, sweetened with low-calorie sweetener, fortified with vitamin D
Flavored yogurts (caloric sweeteners), fat-free	Yogurt, vanilla or lemon flavor, nonfat milk, sweetened with low-calorie sweetener, fortified with vitamin D
Flavored yogurts (caloric sweeteners), NFS	Yogurt, vanilla or lemon flavor, nonfat milk, sweetened with low-calorie sweetener, fortified with vitamin D
Flavored yogurts (low calorie sweeteners), fat-free	Yogurt, vanilla or lemon flavor, nonfat milk, sweetened with low-calorie sweetener, fortified with vitamin D
Fruit yogurts (caloric sweeteners) includes yogurt not specified, whole	Yogurt, vanilla or lemon flavor, nonfat milk, sweetened with low-calorie sweetener, fortified with vitamin D
Fruit yogurts (caloric sweeteners) includes yogurt not specified, low fat	Yogurt, vanilla or lemon flavor, nonfat milk, sweetened with low-calorie sweetener, fortified with vitamin D

Table B 1. Item Clusters and Representative Foods for 2010 USDA Food Patterns and Food Pattern Modeling Analyses—continued

Item Cluster	"Ideal" Representative Food
MILK GROUP (CONT'D)	
Fruit yogurts (caloric sweeteners) includes yogurt not specified, fat-free	Yogurt, vanilla or lemon flavor, nonfat milk, sweetened with low-calorie sweetener, fortified with vitamin D
Fruit yogurts (caloric sweeteners) includes yogurt not specified, fat NFS	Yogurt, vanilla or lemon flavor, nonfat milk, sweetened with low-calorie sweetener, fortified with vitamin D
Fruit yogurts (low calorie sweeteners), fat-free	Yogurt, vanilla or lemon flavor, nonfat milk, sweetened with low-calorie sweetener, fortified with vitamin D
Natural cheeses (includes low sodium cheeses), regular	Cheese, Mexican, blend, reduced fat
Natural cheeses (includes low sodium cheeses), reduced-fat	Cheese, Mozzarella, nonfat or fat free
Natural cheeses (includes low sodium cheeses), low fat and fat-free	Cheese, Mexican, blend, reduced fat
Natural cheeses (includes low sodium cheeses), fat NFS	Cheese, Mozzarella, nonfat or fat free
Cottage cheeses, regular	Cheese, cottage, low fat, 1% milkfat, no sodium added
Cottage cheeses, low fat and fat NFS	Cheese, cottage, low fat, 1% milkfat, no sodium added
Processed cheeses (includes low sodium cheeses), regular	Cheese, pasteurized process, American, low fat
Processed cheeses (includes low sodium cheeses), reduced-fat	Cheese, pasteurized process, American, low fat
Processed cheeses (includes low sodium cheeses), low fat and fat-free	Cheese, pasteurized process, American, low fat
Cheese spreads, dips, sauces, soups	Cheese, pasteurized process, American, low fat
Cheese on sandwiches	Cheese, pasteurized process, American, low fat
Cheese in grains products, snacks (includes breads and cereals), desserts/sweets, regular and NFS	Cheese, pasteurized process, American, low fat
Cheese in grains products (includes fried cheese, gnocchi), desserts/ sweets, reduced fat, low fat, nonfat	Cheese, Mozzarella, nonfat or fat free
Cheese in Mexican dishes	Cheese, Mexican, blend, reduced fat
Cheese in egg or meat dishes and frozen meals	Cheese, Mexican, blend, reduced fat
Cheese on pizza and calzone, regular	Cheese, Mozzarella, nonfat or fat free
Cheese on pizza and calzone, reduced-fat and low fat	Cheese, Mozzarella, nonfat or fat free
Cheese in pasta and Italian dishes, regular and NFS	Cheese, Mexican, blend, reduced fat
Cheese in pasta and Italian dishes, reduced fat, low fat, and nonfat	Cheese, Mexican, blend, reduced fat
Cheese on vegetables (cheese sauce), in salads & dressings	Cheese, pasteurized process, American, low fat
Cheese NFS	Cheese, Mexican, blend, reduced fat
Soymilk	Soymilk (all flavors), unsweetened, with added calcium, vitamins A and D