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CENTER FOR NUTRITION POLICY AND PROMOTION

Thrifty Food Plan, 1999

Executive Summary

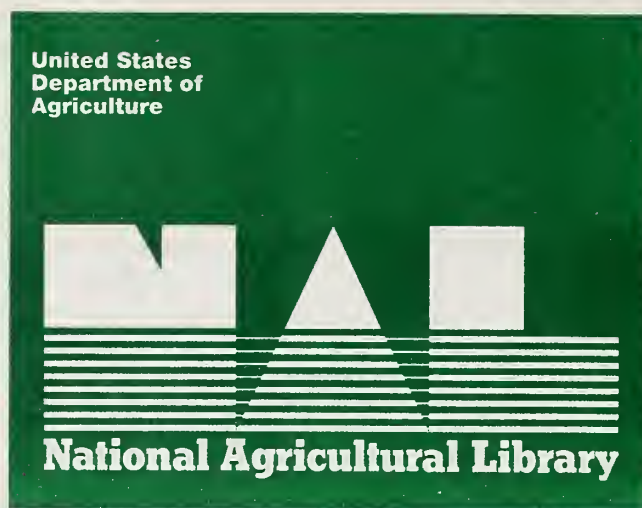


UNITED STATES DEPARTMENT OF AGRICULTURE
Center for Nutrition Policy and Promotion
Washington, DC

CNPP-7A

The Thrifty Food Plan
U.S. Department of Agriculture

The Thrifty Food Plan (TFP) provides a representative healthful diet on a modest budget or food guidance as well as updated information on a healthful diet meeting current nutritional standards at a constant real cost equal to the previous Thrifty Food Plan.



Policy and Promotion,

The TFP provides a healthful diet achieved utilizing a constant real cost equal to the previous Thrifty Food Plan.

Keywords: Thrifty Food Plan, food, food guidance, meal plan, recipes, food policy, nutrition policy, Food Stamp Program, food assistance programs.

Acknowledgments

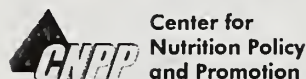
Staff of the Center for Nutrition Policy and Promotion, under the direction of Rajen Anand, Carol Kramer-LeBlanc, P. Peter Basiotis, and Carole Davis, prepared this report. Particular contributions were made by: Mark Lino, Shirley Gerrior, Myrtle Hogbin, Alyson Escobar, Shanthy Bowman (now with the USDA Agricultural Research Service), and Jay Hirschman (now with the Food and Nutrition Service). Valuable assistance was provided at various times by economists at the USDA Economic Research Service (David Smallwood, Kuo Huang, Steven Lutz, James Blaylock, Mark Denbaly, Phillip Kaufman, and Jim MacDonald) and Steven Carlson and Patricia McKinney of the USDA Food and Nutrition Service.

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Center for Nutrition Policy and Promotion
U.S. Department of Agriculture
1120 20th Street, N.W., 200 North
Washington, D.C. 20036-3406

September 1999

Foreword

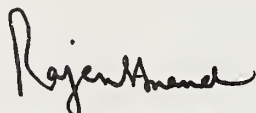
I am delighted to present the new *Thrifty Food Plan* (TFP) prepared by the Center for Nutrition Policy and Promotion with assistance from the Economic Research Service and the Food and Nutrition Service.

The TFP serves as a national standard for a nutritious diet at a minimal cost and is used as the basis for food stamp allotments. This is the first revision of the plan since 1983, and that plan was based on food consumption data from a 1977-78 survey and 1980 Recommended Dietary Allowances. The new plan incorporates current nutritional standards, including the 1989 Recommended Dietary Allowances, the 1995 *Dietary Guidelines for Americans*, and Food Guide Pyramid serving recommendations. The plan is based on data from the 1989-91 Continuing Survey of Food Intakes by Individuals and national average food prices.

The TFP provides food market baskets for 12 age-gender groups at the same cost as the current allotment. Each TFP market basket identifies the type and quantity of foods that people in specific age-gender groups could consume at home to achieve a healthful diet that meets dietary standards.

The report also offers a sample of menus and recipes developed under contract by The Pennsylvania State University that are based on the new TFP market baskets. These menus and recipes were tested and found acceptable by food stamp recipients. The meal plans illustrate one way of preparing nutritious meals and snacks at a minimal cost using the revised TFP. The next challenge is to promote the new TFP among food stamp recipients to help them consume a healthful diet. Currently, they are not eating a diet that meets nutritional standards, but nevertheless costs 23 percent more than the TFP. The report shows that Food Stamp participants could eat a nutritious diet for the cost of the maximum allotment.

I would like to take this opportunity to acknowledge the contribution made by Center staff: Peter Basiotis, Shanthi Bowman (now with the USDA Agricultural Research Service), Mark Lino, Myrtle Hogbin, Shirley Gerrior, Carole Davis, and Alyson Escobar for the technical work; and Carol Kramer-LeBlanc who, in addition to her leadership role, provided valuable editorial suggestions.



Rajen S. Anand, Ph.D.

Executive Director

USDA, Center for Nutrition Policy and Promotion

THE THRIFTY FOOD PLAN, 1999

EXECUTIVE SUMMARY

The Thrifty Food Plan (TFP) has been revised to reflect current dietary recommendations, food consumption patterns, food composition data, and food prices while maintaining the cost at the level of the previous baskets. This revision was undertaken by the U.S. Department of Agriculture (USDA) Center for Nutrition Policy and Promotion (CNPP) with assistance from the USDA Economic Research Service and the USDA Food and Nutrition Service.

The TFP serves as a national standard for a nutritious diet at a minimal cost and is used as the basis for food stamp allotments. The cost of the TFP food or market basket for what is termed “the TFP reference family” (male and female ages 20 to 50, and two children ages 6 to 8 and 9 to 11) was \$98.40 per week in June 1999. The TFP is one of four official USDA food plans (the others being the Low-Cost Plan, the Moderate-Cost Plan, and the Liberal Plan) maintained by CNPP. The TFP market baskets specify the type and quantity of foods that people could consume at home to obtain a nutritious diet at a minimal cost. There are 12 market baskets for 12 specific age-gender groups: *children* ages: 1 year, 2 years, 3-5 years, 6-8 years, and 9-11 years, *males* ages: 12-14 years, 15-19 years, 20-50 years, and 51 years and over, and *females* ages: 12-19 years, 20-50 years, and 51 years and over.

TFP Development

Data and Methods

Two main data sources were used to revise the TFP market baskets: USDA’s 1989-91 Continuing Survey of Food Intakes by Individuals (CSFII) and the Food Price Database. The CSFII was conducted by the USDA Agricultural Research Service, and the Food Price Database was created by CNPP by merging foods from the CSFII with national food price data. The CSFII is administered to a nationally representative sample of households in the 48 coterminous States. The survey assesses the food and nutrient intake of individuals both at home and away from home. Data on 1-day food intake by individuals in low-income households were used for this revision. “Low-income” was defined as before-tax income at or below 130 percent of the U.S. poverty threshold; this is the gross income cut-off for Food Stamp Program eligibility. The sample consisted

of about 7,800 individuals ages 1 and over from low-income households. The CSFII contains sampling weights that make the data representative of the U.S. low-income population. All data were weighted in this study.

In the 1989-91 CSFII, people were asked what foods they consumed in a day—at home and away from home. Information on the ingredients, nutrient content, and amount consumed of each of these foods is contained in the data set. The foods reported as consumed—about 4,800 different foods—were placed into 44 TFP food categories.

The CSFII does not contain information on food prices or expenditures for foods consumed. This information is needed to price a market basket. CNPP developed a method to estimate the price of foods as consumed in the survey and created the Food Price Database using national average food price data from the following sources: the Scantrack system developed by A.C. Nielsen; the retail prices database from the Bureau of Labor Statistics, U.S. Department of Labor; wholesale prices for fresh produce from the Agricultural Marketing Service, USDA; and fish prices from the National Marine Fisheries Service, U.S. Department of Commerce.

To calculate a TFP market basket for each age-gender group, CNPP used a mathematical optimization model. For each of the 12 age-gender groups, the model minimizes deviations from average consumption patterns for the 44 food categories and suggests new consumption patterns that meet required dietary standards and maintain constant cost levels. Each model consists of four sets of data inputs and is subject to three constraints. The model is depicted in figure ES-1. The data inputs relate to each of the 44 food categories, and include average consumption (to ensure an acceptable market basket composed of foods that people eat), average food category price, nutrient profile, and the Food Guide Pyramid servings profile. The constraints in the model are required dietary standards—including serving specifications of the Food Guide Pyramid—and the TFP cost (for 1989-91 to correspond to the period of the food consumption data).

Dietary Standards

The revised TFP market baskets incorporate updated knowledge of nutritional needs. The 1989 Recommended Dietary Allowances (RDAs), the 1995 *Dietary Guidelines for Americans*, the National Research Council's *Diet and Health Report*, and the serving recommendations of the USDA Food Guide Pyramid form the basis of the TFP market baskets. The TFP market basket for each age-gender group meets 100 percent or more of the group's RDAs for 15 essential nutrients—protein, Vitamin A, Vitamin E, Vitamin C, thiamin, riboflavin, niacin, Vitamin B₆, folate, Vitamin B₁₂, calcium, phosphorus, magnesium, iron, and zinc. The RDA levels for each of these 15 nutrients represent an amount sufficient to meet the needs of all healthy people in the group.

Recommendations for fat and saturated fat consumption for the revised TFP market baskets were based on the 1995 *Dietary Guidelines for Americans*, which recommend that adults and children ages 5 and older consume no more than 30 percent of total food energy (calories) per day from total fat and less than 10 percent of calories per day from saturated fat. For children ages 2 to 5, the *Dietary Guidelines* recommend reducing intake of total and saturated fat gradually to no more than 30 percent (total fat) and less than 10 percent (saturated fat) of total calories per day by the time the child is about 5 years old. Recommendations for cholesterol and carbohydrate were based on the National Research Council's *Diet and Health Report*, which recommends that people ages 2 and over limit their daily intake of cholesterol to 300 milligrams or less and that all people consume 55 percent or more of calories per day from carbohydrate.

This revision of the TFP market baskets is the first one to incorporate serving recommendations of the Food Guide Pyramid. The Pyramid specifies the number of servings of the five major food groups (grains, fruits, vegetables, milk products, and meat/meat alternates) people of different age-gender groups need to eat to have a healthful diet. For this TFP revision, the market basket for each age-gender group had to meet the recommended servings of each of the five major food groups.

Cost Level

The research question addressed in this revision was whether households can still meet updated nutrition standards at the cost of the previous TFP. Accordingly, the cost of the new TFP was constrained by CNPP to equal the average cost of the 1989-91 TFP for each

age-gender group. This constant cost was used to ascertain whether, and how, a household could achieve a nutritious diet deviating as little as possible from existing consumption patterns.

TFP Results

Market Baskets

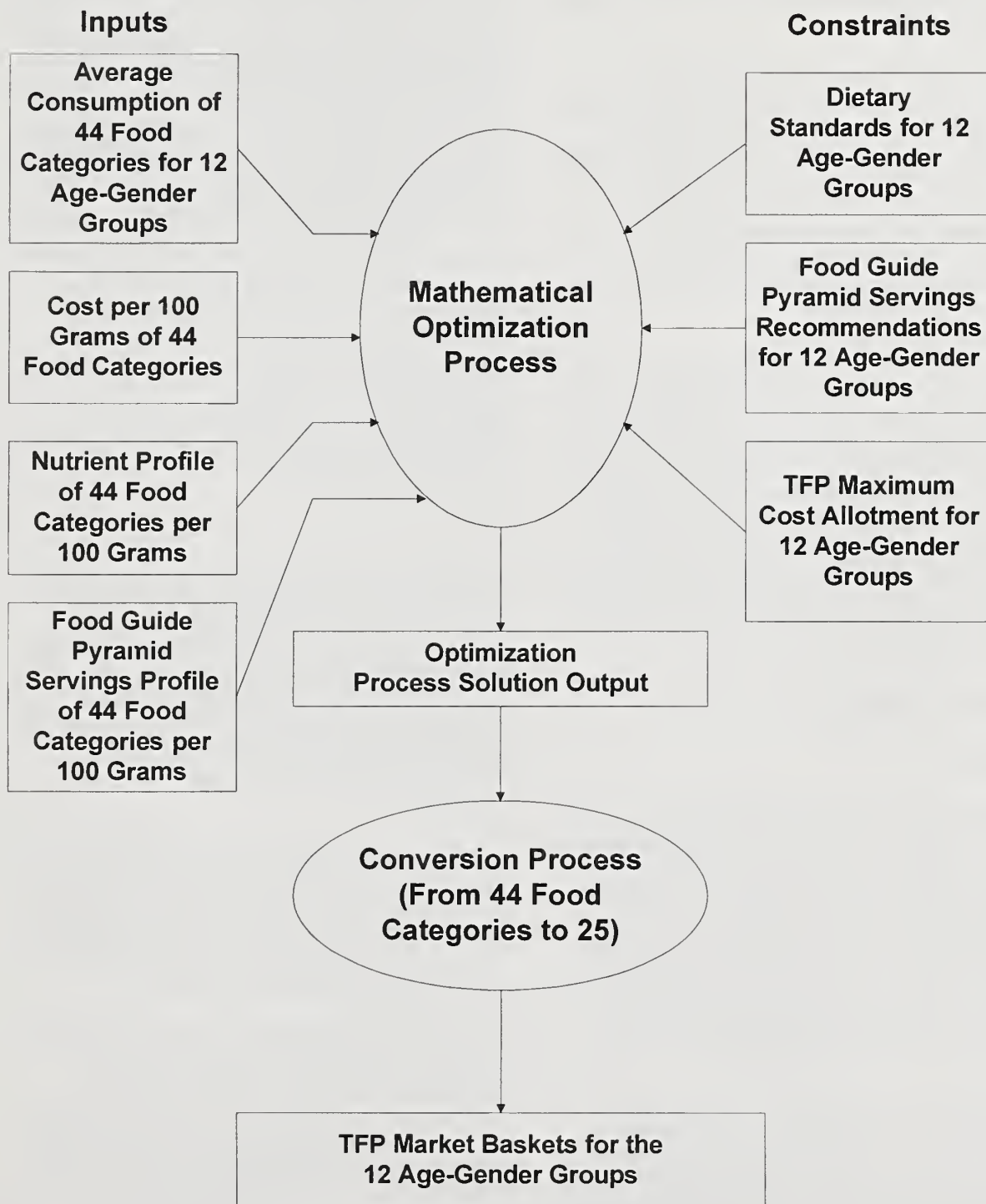
The optimization model yielded a TFP market basket for each of the 12 age-gender groups, consisting of quantities of each of the 44 food categories. Each market basket met model constraints including dietary standards, Food Guide Pyramid serving recommendations, and cost levels.

In the design of the TFP, it is necessary to convert foods and quantities consumed into the appropriate, corresponding form and quantity of purchasable foods. After obtaining quantities consumed in the 44 food categories from the model output, these were converted to the equivalent amount of food ingredients that could be purchased, and then collapsed into a simplified group of 25 food categories. One of the simplifications was that mixed foods were disaggregated into ingredients and allocated to these categories. A 1-week market basket of 25 food categories was determined for each of the 12 age-gender groups. The 1-week TFP market baskets for each of the age-gender groups are shown in table ES-1. These individual market baskets may be combined to form a household market basket.

TFP Comparisons and Sensitivity Analysis

To understand how actual reported diets would need to change to meet the nutritional standards embodied in the new TFP, we can compare the average TFP market basket (a population-weighted average of the 12 age-gender specific market baskets) with a market basket based on average consumption reported in the 1989-91 CSFII. Compared with average consumption, the new average TFP market basket contains more pounds of fruits (+143 percent), vegetables (+38 percent), grains (+36 percent), and milk products (+29 percent), but contains fewer pounds of other foods (fats, oils, and sweets) (-58 percent) and meat/meat alternates (-8 percent). Having more fruits and vegetables and less of the other foods group in the TFP market basket, compared with average consumption, is not surprising, because the TFP market basket represents a nutritious diet. The Healthy Eating Index, an indicator of overall quality of the American diet, shows that the diet of most Americans, particularly low-income Americans, needs improvement.

Figure ES-1. Thrifty Food Plan Methodology



Compared with the previous average TFP market basket (in pounds), the revised average TFP market basket contains more fruits (+90 percent), milk products (+19 percent), and meat/meat alternates (+11 percent), about the same amount of vegetables, and fewer pounds of grains (-10 percent). These differences from the previous TFP market basket are primarily due to changes in dietary standards.

Sensitivity analysis is a technique that permits an assessment of how sensitive model results are to changes in the constraints. By relaxing the cost constraint systematically, for example, one can identify a cost range over which the model still produces a TFP market basket that meets all other constraints. In other words, sensitivity analysis permits an examination of the cost ranges at which the TFP market baskets could be obtained from the mathematical model, given the model inputs and other constraints.

CNPP found that for all 12 age-gender groups, food plan solutions as specified by TFP inputs and other constraints could be obtained in the cost range between 96 and 125 percent of the TFP cost. While the model still "solves" when the cost is reduced 4 percent, the mix of foods in each of the five Food Guide Pyramid food groups varies and shifts to less expensive food items. For example, the amounts of potatoes, rice, and dry beans increase. The 125 percent of the TFP cost figure represents a capped limit so that the TFP cost does not exceed the cost of the Low-Cost Food Plan, the next higher cost USDA food plan.

TFP Menus and Recipes

Development

To help implement the TFP, the shopping list or market basket for a family of four was converted into menus and recipes that may be used by food stamp recipients or households with a limited food budget. These menus and recipes were developed under contract with The Pennsylvania State University (PSU) and demonstrate one way of eating nutritious meals and snacks on a minimal-cost budget. The menus and recipes were first evaluated by taste panelists and then evaluated by a small number of food stamp households.

Two weekly menus with recipes for each week were developed. Convenience was considered whenever possible, but was a secondary objective. Each weekly menu consists of seven daily menus, with three meals and usually one snack a day. The sample weekly menus met the dietary standards and the cost criterion of the

TFP. To ensure that these menus and recipes met the dietary standards, the nutritive values of the menus and recipes were analyzed by using the Food Intake Analysis System, Version 3.2 (1996), and the number of Food Guide Pyramid servings in the menus and recipes was determined by using the 1996 Food Guide Pyramid Servings Database.

Once the recipes were developed, they were tested for acceptability in the PSU Food Laboratory. Taste panelists rated the sensory qualities of the recipes, and those with an acceptable score were included in the final menus to be evaluated by food stamp households. Recipe yields, and preparation and cooking time were determined for 40 recipes (20 per week).

Foods in the menus and recipes were then purchased by eight four-person food stamp households, (four households for each weekly menu) based on the TFP budget. The menus and recipes were prepared and evaluated for acceptability by these households, who were of different races (White and African American), ethnicity (Hispanic and nonHispanic), household structure (married couple and single parent), and locale (urban and rural Pennsylvania).

Results

Overall, the menus and recipes were well-received by the eight households. Interestingly, two of the eight households required additional guidance related to basic cooking skills in preparing the menus and recipes because they lacked knowledge or experience to prepare food items from the recipes. Nonetheless, results of this component of the TFP study confirm that minimal cost, nutritious meal plans based on the revised TFP market baskets are both feasible and acceptable.

It should be noted that the foods in the menus and recipes are chosen to be widely available to ensure that the menus and recipes are appropriate for a national population. However, a limitation is the small number of food stamp households, from one region of the country, evaluating the menus and recipes.

The new TFP meal plans for two weeks (food lists and menus) are included here. The new meal plans, including recipes, will also appear in *Preparing Nutritious Meals at Minimal Cost*. Nutrition educators and other "information multipliers" can use the meal plans to develop nutrition education materials for local, culturally diverse, low-income populations.

Conclusions

The TFP represents a minimal cost, nutritious diet. The revised TFP market baskets successfully incorporate recent dietary guidance and nutrient recommendations while maintaining constant real cost levels. The market baskets serve as a valuable framework for providing advice to low-income households regarding economical, nutritious food selection. This is especially important as the average low-income family of four currently spends about 23 percent more on food than the cost of their TFP market basket and, even so, their diets do not meet nutrition standards. The menus and recipes developed in the TFP revision will assist people in planning and preparing nutritious meals on a limited budget. This revision of the TFP market baskets is an important step in assisting households to eat more healthfully.

Table ES-1. Quantities of food for a week,¹ 1999 Thrifty Food Plan market baskets, by age-gender group

Food category	Children (years)				
	1	2	3 - 5	6 - 8	9 - 11
Total pounds	18.22	17.88	20.02	24.66	27.63
	<i>Pounds per week</i>				
Grains					
Breads, yeast and quick	.14	.18	.51	1.42	1.33
Breakfast cereals, cooked and ready to eat	.76	.90	.52	.08	.32
Rice and pasta	.50	.22	1.31	1.28	1.30
Flours	.05	.07	.15	.33	.45
Grain-based snacks and cookies	<u>.02</u>	<u>.04</u>	<u>.09</u>	<u>.04</u>	<u>.08</u>
	1.47	1.41	2.58	3.15	3.48
Vegetables					
Potato products	1.58	1.55	.98	2.06	3.10
Dark-green and deep-yellow vegetables	.21	.15	.22	.97	.49
Other vegetables	<u>.90</u>	<u>.83</u>	<u>1.09</u>	<u>1.56</u>	<u>1.35</u>
	2.69	2.53	2.29	4.59	4.94
Fruits					
Citrus fruits, melons, berries, and juices	.70	.95	.84	2.51	3.04
Noncitrus fruits and juices	<u>1.47</u>	<u>1.33</u>	<u>1.56</u>	<u>1.55</u>	<u>1.50</u>
	2.17	2.28	2.40	4.06	4.54
Milk products					
Whole milk, yogurt, and cream	7.51 ²	6.46	3.72	1.71	2.63
Lower fat and skim milk, and lowfat yogurt	-	-	2.71	5.59	4.06
Cheese	.07	.06	.16	.09	.14
Milk drinks and milk desserts	<u>.09</u>	<u>.29</u>	<u>.35</u>	<u>.14</u>	<u>.40</u>
	7.67	6.81	6.94	7.53	7.23
Meat/meat alternates					
Beef, pork, veal, lamb, and game	.45	.50	.80	1.19	.95
Chicken, turkey, and game birds	.72	.76	.62	1.15	1.29
Fish and fish products	.15	.25	.08	.52	1.14
Bacon, sausages, and luncheon meats	.06	.10	.20	.11	.18
Eggs and egg mixtures	1.21	.85	.45	.62	.46
Dry beans, lentils, peas, and nuts	<u>.29</u>	<u>.63</u>	<u>.99</u>	<u>.95</u>	<u>.42</u>
	2.88	3.09	3.14	3.77	4.44
Other foods					
Table fats, oils, and salad dressings	.15	.13	.21	.26	.34
Gravies, sauces, condiments, spice, and salt	.06	.07	.12	.18	.18
Fruit drinks, soft drinks, and ades	.84	1.24	1.97	.70	2.23
Sugars, sweets, and candies	<u>.29</u>	<u>.32</u>	<u>.37</u>	<u>.42</u>	<u>.25</u>
	1.34	1.76	2.67	1.56	3.00

¹Food as purchased includes uncooked grain products; raw, canned, and frozen vegetables; fruit juice concentrates; dry beans and legumes; and meat with bones. Coffee and tea are included in the food plan but are not shown because of the small quantities. However, their cost is included in the estimated food plan cost.

²For children ages 1 and 2 years, the model yielded quantities of whole milk, yogurt, and cream, and lower fat and skim milk, and lowfat yogurt. Dietary guidance, however, is that children at these ages primarily consume whole milk products so quantities of lower fat and skim milk, and lowfat yogurt for these children were allocated to the whole milk, yogurt, and cream category.

Table ES-1. Quantities of food for a week,¹ 1999 Thrifty Food Plan market baskets (cont'd)

Food category	Females	Males		Females	Males	Females	Males
	12 - 19	12 - 14	15 - 19	20 - 50	20 - 50	51+	51+
Total pounds	31.90	32.42	34.70	30.45	33.30	26.48	30.63
<i>Pounds per week</i>							
Grains							
Breads, yeast and quick	1.32	1.20	1.02	1.52	1.36	.97	1.14
Breakfast cereals, cooked and ready to eat	.33	.42	.05	.18	.09	.42	.36
Rice and pasta	1.28	1.95	3.41	1.31	2.86	1.24	1.45
Flours	.47	.50	.34	.44	.35	.30	.41
Grain-based snacks and cookies	<u>.06</u>	<u>.05</u>	<u>.03</u>	<u>.09</u>	<u>.05</u>	<u>.09</u>	<u>.04</u>
	3.46	4.12	4.85	3.54	4.71	3.02	3.40
Vegetables							
Potato products	2.74	3.76	2.95	2.85	3.95	1.33	2.02
Dark-green and deep-yellow vegetables	.56	.17	.47	.45	.37	.65	.62
Other vegetables	<u>1.81</u>	<u>1.89</u>	<u>2.59</u>	<u>2.01</u>	<u>2.28</u>	<u>2.76</u>	<u>2.92</u>
	5.11	5.82	6.01	5.31	6.60	4.74	5.56
Fruits							
Citrus fruits, melons, berries, and juices	3.27	3.96	5.42	4.08	3.67	3.03	6.47
Noncitrus fruits and juices	<u>.99</u>	<u>1.43</u>	<u>.99</u>	<u>1.08</u>	<u>2.75</u>	<u>1.87</u>	<u>1.34</u>
	4.26	5.39	6.41	5.16	6.42	4.90	7.81
Milk products							
Whole milk, yogurt, and cream	1.84	2.68	2.05	1.80	2.47	1.39	1.75
Lower fat and skim milk, and lowfat yogurt	8.59	7.66	8.75	4.87	4.24	5.14	5.28
Cheese	.12	.09	.11	.17	.20	.10	.09
Milk drinks and milk desserts	<u>.19</u>	<u>.20</u>	<u>.07</u>	<u>.20</u>	<u>.14</u>	<u>.17</u>	<u>.10</u>
	10.74	10.63	10.98	7.04	7.05	6.80	7.22
Meat/meat alternates							
Beef, pork, veal, lamb, and game	1.14	1.53	1.14	1.58	1.42	1.54	1.73
Chicken, turkey, and game birds	2.59	1.78	.56	1.64	1.72	1.39	.80
Fish and fish products	.45	.36	1.18	.47	.58	.40	.25
Bacon, sausages, and luncheon meats	.12	.12	.26	.16	.23	.14	.25
Eggs and egg mixtures	.38	.35	.32	.45	.38	.46	.57
Dry beans, lentils, peas, and nuts	<u>.31</u>	<u>.62</u>	<u>1.55</u>	<u>.40</u>	<u>1.44</u>	<u>.42</u>	<u>1.32</u>
	4.99	4.76	5.01	4.70	5.77	4.35	4.92
Other foods							
Table fats, oils, and salad dressings	.28	.37	.46	.35	.48	.31	.37
Gravies, sauces, condiments, spice, and salt	.17	.16	.22	.19	.26	.18	.22
Fruit drinks, soft drinks, and ades	2.70	1.06	.69	3.88	1.87	1.96	.98
Sugars, sweets, and candies	<u>.19</u>	<u>.11</u>	<u>.07</u>	<u>.28</u>	<u>.14</u>	<u>.22</u>	<u>.15</u>
	3.34	1.70	1.44	4.70	2.75	2.67	1.72

¹Food as purchased includes uncooked grain products; raw, canned, and frozen vegetables; fruit juice concentrates; dry beans and legumes; and meat with bones. Coffee and tea are included in the food plan but are not shown because of the small quantities. However, their cost is included in the estimated food plan cost.

Food List

Week 1: Food for a Family of Four¹

Fruits and Vegetables

Fresh²:

Apples	(6 small) 1 lb 8 oz
Bananas	(11 medium) 2 lb 12 oz
Melon	1 lb
Oranges	(26 small) 5 lb 7 oz
Cabbage	4 oz
Carrots	1 lb 4 oz
Celery	3 oz
Green pepper	3 oz
Lettuce, leaf	4 oz
Onions	2 lb 8 oz
Potatoes	11 lb 14 oz
Zucchini	7 oz

Canned:

Applesauce	2 oz
Peaches	1 lb 10 oz
Pears	13 oz
Green beans	12 oz
Spinach	10 oz
Tomato paste	6 oz
Tomato sauce	1 lb 1 oz
Tomato soup	10.5 oz

Frozen:

Orange juice, concentrate	8 12-oz cans
Green beans	5 oz
Peas	5 oz

Breads, Cereals, and Other Grain Products

Bagels, plain, enriched	(8) 1 lb
Bread crumbs	2 oz
Bread, white, enriched	2.2 lb
English muffins	8
French bread, enriched	8 oz
Hamburger buns, enriched	8
Crackers, snack, low salt	4 oz
Oatmeal, quick, rolled oats	3 oz
Ready-to-eat cereal (flakes)	6 oz
Barley, pearl	4 oz
Flour, enriched	1 lb 8 oz
Macaroni, enriched	1 lb 11 oz
Noodles, enriched	2 lb 3 oz
Rice, enriched	2 lb, 5 oz

Milk and Cheese

Evaporated milk	16 fl oz
Milk, 1% lowfat	2½ gal
Milk, whole	3 qt
Cheddar cheese	8 oz

Meat and Meat Alternates

Beef chuck roast	2.5 lb
Beef, ground, lean	2.4 lb
Chicken, fryer	1.5 lb
Fish	
Breaded portions, frozen	1 lb
Cod, frozen	1 lb
Tuna fish, chunk-style, water-pack	12 oz
Turkey breast	2 lb 4 oz
Turkey, ground	2 lb
Turkey ham (deli)	11 oz
Beans, kidney, canned	1 lb 11 oz
Beans, lima, dry	6 oz
Beans, northern, canned	9 oz
Beans, garbanzo (chickpeas), canned	10 oz
Eggs, large	16

Fats and Oils

Margarine, stick	7 oz
Shortening	2 oz
Salad dressing, mayonnaise-type	1 lb
Vegetable oil	9 fl oz

Sugars and Sweets

Sugar, brown	2 oz
Sugar, granulated	1 lb
Chocolate pudding, instant	3 oz
Lemonade (ready-to-drink)	1 gal

Other Food Items³

Baking powder
Baking soda
Beef bouillon cubes
Black pepper, red pepper
Catsup
Chicken bouillon cubes
Chili powder
Cinnamon
Cornstarch
Cumin
Dry mustard
Gelatin, unflavored
Lemon juice, bottled
Onion powder
Oregano
Paprika
Parsley flakes
Salt
Soy sauce
Sweet pickle relish
Vanilla
Vinegar

¹Provides food for a family of four. Amounts of food shown are for foods actually used during the week.

²Substitute other fruits or vegetables in season that contain similar nutrients if they are better buys.

³Small amounts used in preparing recipes and other foods in the menus and recipes; purchase as needed.

Food List

Week 2: Food for a Family of Four¹

Fruits and Vegetables

Fresh²:

Apples	(5 small) 1 lb 4 oz
Bananas	(11 medium) 2 lb 12 oz
Grapes	1 lb 8 oz
Melon	1 lb
Oranges	(22 small) 4 lb 12 oz
Carrots	1 lb
Celery	5 oz
Green pepper	4 oz
Lettuce, leaf	9 oz
Onions	1 lb 4 oz
Potatoes	10 lb 8 oz
Tomatoes	6 oz

Canned:

Oranges, mandarin	13 oz
Peaches, canned, light-syrup	1 lb 10 oz
Mushrooms, canned	4 oz
Spaghetti sauce	26 oz
Tomato sauce	8 oz

Frozen:

Orange juice, concentrate	7 12-oz cans
Broccoli	6 oz
French fries	11 oz
Green beans	1 lb 7 oz
Peas	15 oz

Breads, Cereals, and Other Grain Products

Bagels, plain, enriched	(4) 8 oz
Bread crumbs	3 oz
Bread, French	4 oz
Bread, white, enriched	2 lb
Bread, whole-wheat	1 lb
Hamburger buns, enriched	8
Rolls, dinner, enriched	4
Ready-to-eat cereal	
Corn flakes	1 oz
Toasted oats	10 oz
Flour, enriched	1 lb 7 oz
Macaroni, enriched	1 lb 5 oz
Noodles, enriched	1 lb 2 oz
Popcorn, microwave, unpopped	3 oz
Rice, enriched	3 lb 2 oz
Spaghetti, enriched	11 oz

Milk and Cheese

Evaporated milk	4 oz
Milk, 1% lowfat	9 qt
Milk, whole	4 qt
Cheese, cheddar	2 oz
Cheese, cottage	7 oz
Cheese, mozzarella	1 oz

Meat and Meat Alternates

Beef, ground, lean	3 lb 15 oz
Chicken, fryer	1 lb 13 oz
Chicken, thighs	2 lb 12 oz
Fish (flounder, cod), frozen	2 lb
Tuna fish, chunk-style, water-pack	12 oz
Pork, ground	1 lb 7 oz
Turkey, ground	1 lb
Turkey ham	11 oz
Beans, garbanzo (chickpeas), canned	15 oz
Beans, kidney, canned	15 oz
Beans, vegetarian, canned	1 lb 9 oz
Eggs, large	17

Fats and Oils

Margarine, stick	15 oz
Shortening	4 oz
Salad dressing, mayonnaise-type	6 fl oz
Vegetable oil	9 fl oz

Sugars and Sweets

Sugar, brown	1 oz
Sugar, powdered	3 oz
Sugar, granulated	9 oz
Jelly	8 oz
Molasses	1 fl oz
Pancake syrup	2 oz
Chocolate chips, semi-sweet	2 oz
Fruit drink	1 gal
Fudgesicles, ice milk	4

Other Food Items³

Baking powder	
Baking soda	
Black pepper	
Catsup	
Chicken broth, reduced sodium	
Chili powder	
Cinnamon	
Chocolate drink mix, powdered	
Cumin	
Dried onion	
Garlic powder	
Gelatin, unflavored	
Italian herb seasoning	
Lemon juice, bottled	
Oregano	
Paprika	
Salt	
Soy sauce, reduced sodium	
Vanilla	

¹Provides food for a family of four. Amounts of food shown are for foods actually used during the week.

²Substitute other fruits or vegetables in season that contain similar nutrients if they are better buys.

³Small amounts used in preparing recipes and other food items in the Week 1 menus; purchase as needed.

Week I. Menus for a Family of Four

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
B R E A K F A S T	Orange juice (3 c) Ready-to-eat cereal (3 c flakes) Toasted English muffin (4) 1% lowfat milk (2 c)	Orange juice (3 c) Banana (4) Bagel (4) Margarine (4 tsp) 1% lowfat milk (2 c)	Orange juice (3 c) **Cooked rice cereal Bagel (4) Margarine (4 tsp)	Orange juice (3 c) Scrambled eggs (4) Hash brown potatoes (2 c) 1% lowfat milk (2 c)	Orange juice (3 c) Ready-to-eat cereal (3 c flakes) English muffin (4) Margarine (4 tsp) 1% lowfat milk (2 c)	Orange juice (3 c) *Baked French toast Cinnamon sugar topping (4 tsp) 1% lowfat milk (2 c)	Orange juice (3 c) *Baked potato cakes White toast (4 slices) 1% lowfat milk (2 c)
L U N C H	*Turkey patties Hamburger bun (4) Orange juice (3 c) Coleslaw (2 c) 1% lowfat milk (2 c)	*Crispy chicken **Potato salad **Orange gelatin salad Peaches, canned (1 c) **Rice pudding	**Turkey chili Macaroni (2 c) *Peach-apple crisp 1% lowfat milk (2 c) Orange juice (3 c)	Turkey ham (11 oz, 2 tbsp) salad dressing) sandwiches (4) **Baked beans Banana, slices (2 c) **Oatmeal cookies Orange juice (3 c) 1% lowfat milk (2 c)	**Potato soup Snack crackers, low salt (5 each) *Tuna pasta salad Orange slices (2 c) **Oatmeal cookies 1% lowfat milk (2 c)	**Potato soup Snack crackers, low salt (5 each) Apple orange slices (2 apples, 2 oranges) (2 c) **Rice pudding 1% lowfat milk (2 c)	Baked fish (12 oz, 4 tbsp) salad dressing) sandwiches (4) *Crispy potatoes **Macaroni salad Melon (1-1/3 c) Orange juice (3 c) 1% lowfat milk (2 c)
D I N E R	**Beef-noodle casserole Lima beans (2 c) Banana orange salad (2 bananas, 2 oranges) (2 c) 1% lowfat milk (2 c)	*Turkey stir fry Steamed rice (3 c) White bread (4 slices) *Peach-apple crisp 1% lowfat milk (2 c)	**Baked cod w/cheese *Scalloped potatoes Spinach (1-1/3 c) Margarine (4 tsp) Chocolate pudding (2 c)	*Beef pot roast Egg noodles (4 c) Peas and carrots (1 c) Orange slices (2 c) Biscuits (8) Margarine (4 tsp) **Rice pudding 1% lowfat milk (2 c)	Beef pot roast (12 oz) Noodles (4 c) Green beans (1-1/3 c) Leaf lettuce (1-1/3 c) Salad dressing (4 tbsp) **Rice pudding 1% lowfat milk (2 c)	*Saucy beef pasta White bread (4) Canned pears (2 c) Orange juice (3 c) 1% lowfat milk (2 c)	*Turkey-cabbage casserole (8 c) Orange slices (2 c) White bread (2 slices) **Chickpea dip 1% lowfat milk (2 c)
S N A C K	White bread (4 slices) **Chickpea dip Lemonade (4 c)	Orange juice (3 c)	*Crispy potatoes	Lemonade (4 c)	Biscuits (8) Margarine (4 tsp) Lemonade (4 c)	Lemonade (4 c)	

*Recipes were tested and sensory-evaluated in the food laboratory and by households.

**Recipes were tested and sensory-evaluated in the food laboratory.

Note: Daily menus are designed in no specific sequence. Amounts of foods that a family is expected to use are shown in parentheses for most foods. Amounts of allowed margarine and milk can be combined or divided differently at meals. Recipes are provided for foods shown with asterisks. Serving sizes are shown on the recipes.

Week II. Menus for a Family of Four

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
B R E A K F A S T	Orange juice (3 c) Hash brown potatoes (2 c) Biscuits (8) Margarine (4 tsp) Jelly (8 tbsp)	Orange juice (3 c) Ready-to-eat-cereal (3 c toasted oats) White toast (4 slices) Margarine (8 tsp) 1% lowfat milk (2 c)	Orange juice (3 c) Bananas (1/2 c) Ready-to-eat-cereal (3 c toasted oats) White toast (4 slices) Jelly (8 tbsp) 1% lowfat milk (2 c)	Orange juice (3 c) **Cooked rice cereal White toast (4 slices) Margarine (4 tsp) 1% lowfat milk (2 c)	Orange juice (3 c) Ready-to-eat cereal (3 c toasted oats) White toast (4 slices) Margarine (4 tsp) 1% lowfat milk (2 c)	Orange juice (3 c) Scrambled eggs (2 c) Turkey ham (11 oz) Bagels (4) 1% lowfat milk (2 c)	Orange juice (3 c) Melon (1-1/3 c) Pancakes (12) Pancake syrup (8 tbsp) 1% lowfat milk (2 c)
L U N C H	**Chicken and vegetables **Scalloped potatoes Grapes (12 oz) Whole wheat bread (4 slices) Margarine (4 tsp) *Peach cake 1% lowfat milk (2 c)	*Pizza meat loaf Noodles (4 c) Margarine (8 tsp) Orange slices (2 c) 1% lowfat milk (2 c)	*Tuna macaroni salad White bread (4 slices) Margarine (4 tsp) Apple slices (2 c) 1% lowfat milk (2 c) Cocoa drink mix (2 oz)	Hamburger (12 oz) sandwiches (4) *Ranch beans **Orange gelatin salad Banana slices (1/2 c) 1% lowfat milk (2 c)	*Baked chicken nuggets **Shoestring potatoes Macaroni (5 c) Margarine (4 tsp) **Orange gelatin salad 1% lowfat milk (2 c)	*Chicken noodle soup Biscuits (8) Canned peaches (2 c) Orange juice (3 c) 1% lowfat milk (2 c) Cocoa drink mix (2 oz)	Meatball (12 meatballs) sandwiches (4) Grapes (12 oz) **Sugar cookies 1% lowfat milk (2 c) Orange juice (3 c)
D I N N E R	*Southwestern salad Steamed rice (6 c) Apple orange salad (2 apples, 2 oranges) (2 c) Margarine (4 tsp) 1% lowfat milk (2 c)	*Spanish baked fish Steamed rice (6 c) Peas (1-1/3 c) Whole wheat bread (4 slices) Margarine (8 tsp) *Peach cake 1% lowfat milk (2 c)	*Stir-fried pork and vegetables with rice Dinner rolls (4) Margarine (4 tsp) Mandarin oranges (2 c) 1% lowfat milk (2 c)	Baked chicken (10 oz) Mash potatoes (6 c) Green beans (1-1/2 c) White bread (4 slices) Margarine (5-1/3 tsp) Orange slices (2 c) 1% lowfat milk (2 c)	**Baked spicy fish Noodles (4 c) Peas and carrots (10 oz) White bread (4 slices) Margarine (8 tsp) *Chocolate rice pudding 1% lowfat milk (2 c)	*Baked meatballs Spaghetti and sauce (5 c) Leaf lettuce (2 c) Salad dressing (4 tbsp) French bread (4 slices) 1% lowfat milk (2 c)	*Cheese-stuffed potatoes Macaroni (5 c) Peas (1-1/3 c) Margarine (8 tsp) Orange slices (2 c) 1% lowfat milk (2 c)
S N A C K	Popcorn (6 c)	**Shoestring potatoes Fruit drink (4 c)	Popcorn (6 c) Orange juice (3 c)	*Chocolate rice pudding	Baked French fries (11 oz) Fruit drink (4 c)	Ice milk fudgesicle (4)	Popcorn (6 c) Fruit drink (4 c)

*Recipes were tested and sensory-evaluated in the food laboratory and by households.

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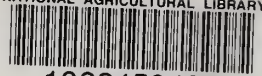
Note: Daily menus are designed in no specific sequence. Amounts of foods that a family is expected to use are shown in parentheses for most foods. Amounts of allowed margarine and milk can be combined or divided differently at meals. Recipes are provided for foods shown with asterisks. Serving sizes are shown on the recipes.

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