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FOOD BUDGETS FOR NUTRITION AND PRODUCTION PROGRAMS<sup>1</sup>

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CONTENTS

	Page		Page
Introduction.....	1	Adequate diets at moderate cost.....	8
Dietary requirements of the population basic to planning food production and distribution.....	2	Liberal diets.....	10
Per capita requirements according to four suggested diets.....	2	Nutritive value of suggested diets.....	12
Restricted diets for emergency use.....	4	Cost of suggested diets.....	13
Adequate diets at minimum cost.....	6	Distribution of expenditures among various groups of foods.....	14

INTRODUCTION

This publication presents (1) restricted diets for emergency use, (2) adequate diets at minimum cost, (3) adequate diets at moderate cost, and (4) liberal diets. The restricted diet for emergency use provides approximately the minimum requirements of the body for the various nutrients, but allows little margin for safety. The minimum- and moderate-cost adequate diets provide enough of the different nutrients to cover average requirements for maintenance and growth and to furnish a margin of safety as well. The liberal diet is fully adequate. It includes items from different food groups in such quantities and proportions as to promote better-than-average nutrition. It permits a greater variety in food than may be provided by the other diets:

Plans for the four diets are shown in terms of yearly allowances per capita, for individuals, and for family groups. Weekly figures for family groups are also given. Extension workers will find the yearly allowances useful in helping farm families to plan their programs of food production for home use. Welfare agencies and teachers will find the weekly food allowances helpful in discussing food budgeting problems with city families. Institutional managers will find the allowances for individuals by age groups of assistance in planning for quantity purchases of food. And economists and administrators interested in coordinating food production, manufacture, and distribution with consumer needs will find in the yearly per capita figures a basis for planning the best use of the food resources of a community, region, or nation. The general use of either of the two diets at the higher levels of nutritive content would not only improve the health and efficiency of the population, but at the same time would foster the type of agriculture which represents wise utilization of land for the country as a whole.

<sup>1</sup> Adapted from the following publication: STIEBELING, H. K., and WARD, M. M. DIETS AT FOUR LEVELS OF NUTRITIVE CONTENT AND COST. U.S. Dept. Agr. Circ. 296, 60 pp., illus. 1933.

## DIETARY REQUIREMENTS OF THE POPULATION BASIC TO PLANNING FOOD PRODUCTION AND DISTRIBUTION

The type of diet selected by the consumer and shifts in food consumption have far-reaching implications for agriculture. Some food materials are much more costly to produce than others. In land requirement, for example, the acreage necessary for the production of the food entering each of the four diets is very different, even omitting grazing lands, which are exceedingly variable in their per acre contribution to the production of meat animals. According to calculations made by the Bureau of Agricultural Economics<sup>2</sup> about 1.2 acres (exclusive of grazing lands) would be required per capita per year to produce the restricted diet for emergency use. For the adequate diet at minimum cost the requirement would be about 1.5 acres; for the adequate diet at moderate cost, 1.8 acres; and for the liberal diet, 2.1 acres per capita. These figures are based on the average per acre yields of different commodities in this country during the 10-year period 1917-26. Calculated on the same basis, 1.9 acres would be required to produce the food apparently consumed per capita per year during the period 1927-31.

Diets which are inexpensive to the consumer include a large proportion of the foods that require relatively little land and labor to produce, and that are relatively nonperishable, and therefore stored and distributed cheaply. They include a much larger proportion of grain products, potatoes, dried legumes, and a smaller proportion of other vegetables, fruits, milk, and lean meats than do the liberal diets. Hence, depending on the type of nutritionally adequate diet which is selected, from 1.5 to 2.1 acres of land may be required for the production of the yearly per capita food supply. This area is from 20 percent less to 10 percent more than the acreage required to produce the type of food apparently consumed during 1927-31.

Obviously, when low purchasing power forces families to economize to the point of subsisting on nutritionally inadequate rations, or to the point of selecting the cheapest food combinations that will give them an adequate diet, the acreage required to supply these foodstuffs will be smaller than is normal or optimal. Also, unless production is quickly adjusted to meet this situation an excess of certain foods accumulates. One set of circumstances is disastrous to human welfare; the other, to the business of agriculture.

### PER CAPITA REQUIREMENTS ACCORDING TO FOUR SUGGESTED DIETS

Table 1 presents the quantities of different kinds of food which, according to each of these four diets, would supply the yearly per capita needs of our population. These quantities were computed from diets adapted to the needs of individuals in different age, sex, and activity groups, and from the number of persons in each group as shown by the 1930 census of population. It was assumed, for purposes of dietary computations, that 40 percent of the men and 30 percent of the women between the ages of 20 and 65 years were very active physically; the others, moderately active. The figures in table 1 apply to the population as a whole, or to large representative groups, and not to individuals or single families. For the latter data see tables 3 to 10, inclusive.

<sup>2</sup> Data supplied by O. E. Baker, Land Resources and Utilization Section, Division of Land Economics.

TABLE 1.—Four diets: Approximate yearly quantities<sup>1</sup> of various foods or groups of food needed per capita for the population of the United States

Item	Restricted diet for emergency use	Adequate diet at minimum cost	Adequate diet at moderate cost	Liberal diet
Flour, cereals.....pounds..	240	224	160	100
Milk, or its equivalent <sup>2</sup> .....quarts..	155	260	305	305
Potatoes, sweetpotatoes.....pounds..	165	165	165	155
Dried beans, peas, nuts.....do.....	30	30	20	7
Tomatoes, citrus fruits.....do.....	50	50	90	110
Leafy, green, and yellow vegetables.....do.....	40	80	100	135
Dried fruits.....do.....	10	20	25	20
Other vegetables, fruits.....do.....	40	85	210	325
Fats (including butter, oils, bacon, salt pork).....do.....	45	49	52	52
Sugars.....do.....	50	35	60	60
Lean meat <sup>3</sup> , poultry, fish.....do.....	30	60	100	165
Eggs.....dozen.....	8	15	15	30

<sup>1</sup> The figures given in this table are computed from diets adapted to the needs of individuals of different age, sex, and activity groups and from the number of persons in each group as shown by the 1930 census of population. The quantities are those which should be delivered to the family kitchen. To convert them into production figures, suitable margins must be added to the different food groups to cover the unavoidable losses in harvesting, grading, storage, manufacture, or distribution.

<sup>2</sup> The following are approximately equivalent to the food value of 1 quart of fluid whole milk: 17 ounces of evaporated milk; or 1 quart of fluid skim milk and 1½ ounces of butter; or 5 ounces of American Cheddar cheese; or 4½ ounces of dried whole milk; or 3½ ounces of dried skim milk and 1½ ounces of butter.

<sup>3</sup> Retail cuts.

To convert the data of table 1 into estimates for production, suitable margins must be added to different types of food to cover the unavoidable losses in harvesting, transportation, storage, grading, processing, and distribution.

In order to furnish the nutritive values shown in table 11 for persons in various age and activity groups, the per capita diet of the people of the United States should provide on an average, 2,810 calories; 68 grams of protein; 0.90 gram of calcium; 1.23 grams of phosphorus; 0.013–0.014 gram of iron; 3,800 units of vitamin A; and 95 units of vitamin C per capita per day. These figures are exclusive of waste. They may be compared with the data given in table 2 on the nutritive value of the four suggested diets.

TABLE 2.—Summary of the food value of diets shown in table 1 in terms of quantities of specified nutrients per capita per day and distribution of calories among different food groups

Item	QUANTITIES OF SPECIFIED NUTRIENTS			
	Restricted diet for emergency use	Adequate diet at minimum cost	Adequate diet at moderate cost	Liberal diet
Energy value.....calories..	2,675	2,980	2,985	2,930
Calories from protein.....percent..	11	12	11	12
Protein.....grams..	75	89	84	87
Fat.....do.....	87	115	130	149
Carbohydrates.....do.....	398	397	370	310
Calcium.....do.....	.85	1.28	1.26	1.27
Phosphorus.....do.....	1.34	1.72	1.58	1.61
Iron.....do.....	.0111	.0134	.0144	.0152
Vitamin A.....units..	2,746	5,067	5,692	6,495
Vitamin C.....do.....	86	118	168	206

DISTRIBUTION OF CALORIES AMONG DIFFERENT FOOD GROUPS

Bread, flour, cereals.....percent..	43	35	24	15
Milk.....do.....	12	18	19	19
Fruits, vegetables.....do.....	14	15	18	18
Fats.....do.....	17	17	18	18
Sugars.....do.....	9	7	9	9
Lean meat, fish, eggs.....do.....	5	8	12	21

## RESTRICTED DIETS FOR EMERGENCY USE

When the resources for food are extremely limited and the cheapest possible combination of foods must be used, the restricted diet offers a plan for emergency use. This diet is not considered adequate for use over an indefinite period. It contains the irreducible minimum of protective and other foods. It should not be used as a basis for determining a money allowance with which untrained persons are expected to purchase their food supplies.

Table 3 presents the quantities of the different kinds of foods which, according to this restricted diet, would supply the yearly needs of individuals in different age and activity groups. Whenever possible, the quantities of vegetables (except potatoes), fruits, dairy products, eggs, and lean meats should be increased, and the quantities of cereals, flour, and dried legumes decreased. Table 4 shows the quantities needed weekly and yearly for family groups of typical composition. Other items, such as salt, leavening agents, coffee, and tea, can be added as needed. From 2 to 4 teaspoonfuls of cod-liver oil, or its equivalent in vitamin A and vitamin D values, should be provided daily for each child under 2 years of age.

TABLE 3.—*Restricted diet for emergency use: Approximate yearly quantities of food for individuals of different age, sex, and activity*

Item	Child under 4 years	Boy 4 to 6 years; girl 4 to 7 years	Boy 7 to 8 years; girl 8 to 10 years	Boy 9 to 10 years; girl 11 to 13 years	Boy 11 to 12 years; girl 13 to 15 years; moderately active woman	Active boy 13 to 15 years; very active woman	Active boy over 15 years	Moderately active man	Very active man
Flour, cereals.....pounds..	85	140	175	195	195	280	370	280	455
Or—									
Bread.....do....	40	65	80	90	90	130	170	130	210
Flour, cereals.....do....	60	95	120	135	135	195	255	195	315
Milk, or its equivalent <sup>1</sup> .....quarts..	182	182	182	182	<sup>2</sup> 182	<sup>2</sup> 182	182	91	91
Potatoes, sweetpotatoes.....pounds..	100	110	125	140	140	160	225	160	300
Dried beans, peas, nuts.....do....		8	18	20	25	30	30	40	50
Tomatoes, citrus fruits.....do....	50	50	50	50	50	50	50	50	50
Leafy, green, and yellow vegetables.....do....	30	30	45	50	50	40	25	40	25
Dried fruits.....do....	3	3	6	8	10	15	10	15	10
Other vegetables, fruits.....do....	12	20	30	40	45	50	50	50	50
Fats <sup>3</sup> .....do....	10	20	30	30	35	55	65	55	75
Sugars <sup>4</sup> .....do....	8	20	30	40	45	65	70	70	80
Lean meat, fish, poultry.....do....		5	15	22	28	35	35	40	50
Eggs.....dozen.....	10	10	10	8½	8½	7½	6	6	6

<sup>1</sup> Approximately equivalent to the food value of 1 quart of fluid whole milk: 17 ounces of evaporated milk; 1 quart of fluid skim milk and 1½ ounces of butter; 5 ounces of American Cheddar cheese; 4½ ounces of dried whole milk; 3½ ounces of dried skim milk and 1½ ounces of butter.

<sup>2</sup> For the adult woman this may be reduced to 91 quarts. For pregnant or nursing mother it should be increased to 273 quarts.

<sup>3</sup> Including butter, oils, bacon, and salt pork.

<sup>4</sup> 1 pint (1½ pounds) of molasses or heavy cane or sorgo sirup is approximately equivalent in fuel value to 1 pound of granulated sugar. The unrefined molasses and sirups are also valuable for their calcium and iron content.

For information on the nutritive value and retail cost of the combinations of food listed above, see pages 12 to 14.

TABLE 4.—Restricted diet for emergency use: Approximate yearly and weekly quantities of food for families of given composition

RESTRICTED DIET FOR FAMILIES WITH VERY ACTIVE ADULTS

Item	2 adults		2 adults, 1 child aged 3 years		2 adults, 2 children aged 3 and 5 years		2 adults, 3 children aged 3, 5, and 8 years		2 adults, 3 children aged 3 and 5 years, boy 13		2 adults, 3 children aged 8 years, girl 12, boy 15		2 adults, 5 children aged 3, 8, 10 years, boy 13, girl 15	
	Year	Week	Year	Week	Year	Week	Year	Week	Year	Week	Year	Week	Year	Week
Flour, cereals.....	737	14	823	16	962	18	1,135	22	1,244	24	1,387	27	1,668	32
Or—														
Bread.....	340	6	380	7	444	8	524	10	574	11	640	12	770	15
Flour, cereals.....	510	10	570	11	666	13	786	15	861	17	960	19	1,155	22
Milk, or its equivalent <sup>1</sup> .....	182	3½	365	7	456	10½	730	14	730	14	730	14	1,085	21
Potatoes, sweetpotatoes.....	460	9	560	11	670	13	795	15	830	16	885	17	1,125	22
Dried beans, peas, nuts.....	80	1½	80	1½	106	2	106	2	118	2½	148	3	173	3¼
Tomatoes, citrus fruits.....	100	2	150	3	200	4	250	5	250	5	250	5	350	7
Leafy green, yellow vegetables.....	65	1¼	95	2	125	2½	170	3½	165	3	200	4	280	5
Dried fruits.....	25	½	28	½	31	¾	37	¾	46	1	54	1	67	1¼
Other vegetables, fruits.....	100	2	112	2	132	3	162	3	182	3	220	4	277	5
Fats <sup>2</sup> .....	130	2½	140	2¾	160	3	190	3¾	215	4	245	4½	290	5½
Sugars <sup>3</sup> .....	145	2¾	153	3	173	3¼	203	4	238	4½	280	5½	333	6½
Lean meat, fish, poultry.....	85	1½	85	1½	90	1¾	105	2	125	2½	157	3	185	3¼
Eggs.....dozen.....	16½	¼	26½	½	36½	¾	46½	1	44	¾	42½	¾	61	1¼

RESTRICTED DIET FOR FAMILIES WITH MODERATELY ACTIVE ADULTS

Item	2 adults		2 adults, 1 child aged 3 years		2 adults, 2 children aged 3 and 5 years		2 adults, 3 children aged 3, 5, and 8 years		2 adults, 3 children aged 3 and 5 years, boy 13		2 adults, 3 children aged 8 years, girl 12, boy 15		2 adults, 5 children aged 3, 8, 10 years, boy 13, girl 15	
	Year	Week	Year	Week	Year	Week	Year	Week	Year	Week	Year	Week	Year	Week
Flour, cereals.....	480	9	560	11	700	13	880	17	985	19	1,130	22	1,400	27
Or—														
Bread.....	220	4	260	5	325	6	400	8	455	9	520	10	650	12
Flour, cereals.....	330	6½	390	7	485	10	610	11	680	13	780	15	975	19
Milk, or its equivalent <sup>1</sup> .....	182	3½	365	7	456	10½	730	14	730	14	730	14	1,085	21
Potatoes, sweetpotatoes.....	300	6	400	8	510	10	635	12	670	13	725	14	965	19
Dried beans, peas, nuts.....	65	1	65	1	73	1½	91	2	103	2	133	2½	158	3
Tomatoes, citrus fruits.....	100	2	150	3	200	4	250	5	250	5	250	5	350	7
Leafy green, yellow vegetables.....	90	2	120	2½	150	3	195	4	190	4	225	4	305	6
Dried fruits.....	25	½	28	½	31	¾	37	¾	46	1	54	1	67	1¼
Other vegetables, fruits.....	95	2	107	2	127	2½	157	3	177	3½	215	4	272	5
Fats <sup>2</sup> .....	90	1½	100	2	120	2½	150	3	175	3½	205	4	250	5
Sugars <sup>3</sup> .....	115	2	123	2½	143	2½	173	3½	208	4	250	5	303	6
Lean meat, fish, poultry.....	68	1	68	1	73	1½	88	1½	108	2	140	2½	168	3
Eggs.....dozen.....	14½	¼	24½	½	34½	¾	44½	1	42	¾	40½	¾	59	1

<sup>1</sup> Approximately equivalent to the food value of 1 quart of fluid whole milk; 17 ounces of evaporated milk; 1 quart of fluid skim milk and 1½ ounces of butter; 5 ounces of American Cheddar cheese; 4½ ounces of dried whole milk; ¾ ounce of dried skim milk and 1½ ounces of butter.

<sup>2</sup> Including butter, oils, bacon, and salt pork.

<sup>3</sup> 1 pint (1½ pounds) of molasses or heavy cane or sorgo syrup is approximately equivalent in fuel value to 1 pound of granulated sugar. The unrefined molasses and syrups are also valuable for their calcium and iron content.

## ADEQUATE DIETS AT MINIMUM COST

The problem of supplying an adequate diet at lowest cost can best be solved by making grain products and milk the basis of the diet, with just enough of vegetables and fruit to supply vitamins and minerals not furnished by bread and milk, together with small amounts of eggs, lean meats, fats, and sweets. As more money is available, more vegetables other than potatoes and dried beans or peas, and more lean meat should be included.

Table 5 presents the quantities of the different kinds of foods which, according to this minimum-cost adequate diet, would supply the yearly needs of individuals in different age and activity groups. Table 6 shows the quantities needed weekly and yearly for family groups of typical composition. Other items, such as salt, leavening agents, coffee, and tea, can be added as needed. From 2 to 4 teaspoonfuls of cod-liver oil, or its equivalent in vitamin A and vitamin D values, should be provided daily for each child under 2 years of age.

TABLE 5.—*Adequate diet at minimum cost: Approximate yearly quantities of food for individuals of different age, sex, and activity*

Item	Child under 4 years	Boy 4 to 6 years; girl 4 to 7 years	Boy 7 to 8 years; girl 8 to 10 years	Boy 9 to 10 years; girl 11 to 13 years	Boy 11 to 12 years; girl over 13 years; moderately active woman	Active boy 13 to 15 years; very active woman	Active boy over 15 years	Mod-erately active man	Very active man
Flour, cereals.....pounds..	70	100	150	170	175	260	350	260	435
Or—									
Bread.....do.....	30	50	70	80	80	120	160	120	200
Flour, cereals.....do.....	50	70	105	115	120	180	240	180	300
Milk, or its equivalent <sup>1</sup> .....quarts	365	365	273-365	273-365	<sup>2</sup> 273-365	<sup>2</sup> 273-365	273-365	182	182
Potatoes, sweetpotatoes.....pounds..	100	110	125	140	140	160	225	160	300
Dried beans, peas, nuts.....do.....	8	18	20	25	30	30	40	40	50
Tomatoes, citrus fruits.....do.....	50	50	50	50	50	50	50	50	50
Leafy, green, and yellow vegetables.....pounds..	60	60	90	100	100	75	50	75	50
Dried fruits.....do.....	3	5	12	17	20	30	20	30	20
Other vegetables, fruits.....do.....	25	40	60	80	90	100	100	100	100
Fats <sup>3</sup> .....do.....	8	12	25	32	40	65	75	65	85
Sugars <sup>4</sup> .....do.....	5	12	25	35	40	50	55	60	65
Lean meat, fish, poultry.....do.....	10	30	45	55	55	70	75	75	100
Eggs.....dozen.....	20	20	20	17	17	15	12	12	12

<sup>1</sup> Approximately equivalent to the food value of 1 quart of fluid whole milk: 17 ounces of evaporated milk; 1 quart of fluid skim milk and 1½ ounces of butter; 5 ounces of American Cheddar cheese; 4½ ounces of dried whole milk; 3½ ounces of dried skim milk and 1½ ounces of butter.

<sup>2</sup> For the adult woman this may be reduced to 182 quarts. For pregnant or nursing mother it should be increased to 365 quarts.

<sup>3</sup> Including butter, oils, bacon, and salt pork.

<sup>4</sup> 1 pint (1½ pounds) of molasses or heavy cane or sorgo sirup is approximately equivalent in fuel value to 1 pound of granulated sugar. The refined molasses and sirups are also valuable for their calcium and iron content.

For information on the nutritive value and retail cost of the food combinations listed above, see pages 12 to 14.

TABLE 6.—Adequate diet at minimum cost: Approximate yearly and weekly quantities of food for families of given composition

MINIMUM-COST DIET FOR FAMILIES WITH VERY ACTIVE ADULTS

Item	2 adults		2 adults, 1 child aged 3 years		2 adults, 2 children aged 3 and 5 years		2 adults, 3 children aged 3, 5, and 8 years		2 adults, 3 children aged 3 and 5 years, boy 13 years		2 adults, 3 children aged 8 years, girl 12, boy 15		2 adults, 5 children aged 3, 8, 10 years, boy 13, girl 15	
	Year	Week	Year	Week	Year	Week	Year	Week	Year	Week	Year	Week	Year	Week
Flour, cereals.....pounds.....	690	13	760	15	870	17	1,020	20	1,130	22	1,270	24	1,520	30
Or—														
Bread.....do.....	320	6	350	7	400	8	470	9	520	10	590	11	700	14
Flour, cereals.....do.....	480	9	530	10	600	11	705	14	780	15	880	17	1,050	20
Milk, or its equivalent <sup>1</sup> .....quarts.....	365	7	730	14	1,095	21	1,278	24½	1,410	28	1,578	31	1,840	36½
Potatoes, sweetpotatoes.....pounds.....	460	9	560	10	670	13	795	15	830	16	885	17	1,125	22
Dried beans, peas, nuts.....do.....	80	1½	80	1½	80	1½	106	2	118	2	148	3	173	3½
Tomatoes, citrus fruits.....do.....	100	2	150	3	200	4	250	5	250	5	250	5	350	7
Leafy, green, and yellow vegetables.....do.....	125	2	185	3	245	4	335	5	320	6	390	7	550	11
Dried fruits.....do.....	50	1	53	1	58	1	70	1½	88	1½	109	2	132	2½
Other vegetables, fruits.....do.....	200	4	225	4	265	5	325	6	365	7	440	8	555	11
Fats <sup>2</sup> .....do.....	150	3	158	3	170	3	195	3½	235	4½	272	5	320	6
Sugars <sup>3</sup> .....do.....	115	2	120	2½	132	2½	157	3	182	3½	225	4½	270	5
Lean meat, fish, poultry.....do.....	170	3	170	3	180	3½	210	4	250	5	315	6	370	7
Eggs.....do.....dozen.....	27	½	47	1	67	1	87	1½	82	1½	79	1½	116	2

MINIMUM-COST DIET FOR FAMILIES WITH MODERATELY ACTIVE ADULTS

Flour, cereals.....pounds.....	435	8	500	10	610	12	760	15	870	17	1,015	20	1,260	24
Or—														
Bread.....do.....	200	4	230	5	280	6	350	7	400	8	470	9	580	12
Flour, cereals.....do.....	300	6	350	6	420	8	525	10	600	11	700	14	870	16
Milk, or its equivalent <sup>1</sup> .....quarts.....	365	7	730	14	1,095	21	1,278	24½	1,410	28	1,578	31	1,840	36½
Potatoes, sweetpotatoes.....pounds.....	300	6	400	8	510	10	635	12	670	13	725	14	965	19
Dried beans, peas, nuts.....do.....	65	1	65	1	73	1½	91	1½	103	2	133	2½	158	3
Tomatoes, citrus fruits.....do.....	100	2	150	3	200	4	250	5	250	5	250	5	350	7
Leafy, green, and yellow vegetables.....do.....	175	3	235	5	295	6	385	7	370	7	440	9	600	12
Dried fruits.....do.....	50	1	53	1	58	1	70	1½	88	1½	109	2	132	2½
Other vegetables, fruits.....do.....	190	4	215	4	255	5	315	6	355	7	430	8	545	10
Fats <sup>2</sup> .....do.....	105	2	113	2	125	2½	150	3	190	3½	227	4	275	5
Sugars <sup>3</sup> .....do.....	100	2	105	2	117	2	142	2½	167	3	210	4	255	5
Lean meat, fish, poultry.....do.....	130	2½	130	2½	140	2½	170	3	210	4	275	5	330	6½
Eggs.....do.....dozen.....	29	½	49	1	69	1½	89	1½	84	1½	81	1½	118	2½

<sup>1</sup> Approximately equivalent to the food value of 1 quart of fluid whole milk; 17 ounces of evaporated milk; 1 quart of fluid skim milk and 1½ ounces of butter; 5 ounces of American Cheddar cheese, 4½ ounces of dried whole milk; 3½ ounces of dried skim milk and 1½ ounces of butter.

<sup>2</sup> Including butter, oils, bacon, and salt pork.

<sup>3</sup> 1 pint (1½ pounds) of molasses or heavy cane or sorgo sirup is approximately equivalent in fuel value to 1 pound of granulated sugar. The unrefined molasses and sirups are also valuable for their calcium and iron content.

## ADEQUATE DIETS AT MODERATE COST

The moderate-cost adequate diet here suggested represents a dietary level within the reach of a large part of our population. Its use will undoubtedly promote better-than-average nutrition. More vegetables other than potatoes, fresh fruits, lean meats, or eggs may be added, and the grain products, dried fruits, and dried legumes somewhat reduced, if desired.

Table 7 presents the quantities of the different kinds of foods which, according to this moderate-cost adequate diet, would supply the yearly needs of individuals in different age and activity groups. Table 8 shows the quantities needed weekly and yearly for family groups of typical composition. Other items, such as salt, leavening agents, coffee, and tea, can be added as needed. From 2 to 4 teaspoonfuls of cod-liver oil, or its equivalent in vitamin A and vitamin D values, should be provided daily for each child under 2 years of age.

TABLE 7.—Adequate diet at moderate cost: Approximate yearly quantities of food for individuals of different age, sex, and activity

Item	Child under 4 years	Boy 4 to 6 years; girl 4 to 7 years	Boy 7 to 8 years; girl 8 to 10 years	Boy 9 to 10 years; girl 11 to 13 years	Boy 11 to 12 years; girl over 13 years; moderately active woman	Active boy 13 to 15 years; very active woman	Active boy over 15 years	Moderately active man	Very active man
Flour, cereals.....pounds..	60	80	110	120	120	170	230	220	290
Or—									
Bread.....do.....	50	75	100	120	120	190	240	240	350
Flour, cereals.....do.....	30	30	40	40	40	70	60	60	60
Milk, or its equivalent <sup>1</sup> .....quarts..	365	365	365	365	<sup>2</sup> 365	<sup>3</sup> 365	240	182	182
Potatoes, sweetpotatoes...pounds..	100	100	100	110	125	160	300	160	350
Dried beans, peas, nuts.....do.....	7	10	15	15	15	30	30	30	35
Tomatoes, citrus fruits.....do.....	75	75	75	90	90	100	100	100	100
Leafy, green, and yellow vegetables.....pounds..	60	75	90	90	110	110	100	100	100
Dried fruits.....do.....	7	10	15	20	25	30	45	35	40
Other vegetables, fruits.....do.....	90	100	125	150	175	270	300	270	270
Fats <sup>3</sup> .....do.....	10	15	28	35	42	65	80	65	95
Sugars <sup>4</sup> .....do.....	7	15	30	40	45	75	115	75	115
Lean meat, fish, poultry.....do.....	25	60	75	90	110	110	150	125	160
Eggs.....dozen.....	20	20	20	20	15	15	15	15	15

<sup>1</sup> Approximately equivalent to the food value of 1 quart of fluid whole milk; 17 ounces of evaporated milk; 1 quart of fluid skim milk and 1½ ounces of butter; 5 ounces of American Cheddar cheese; 4½ ounces of dried whole milk; 3½ ounces of dried skim milk and 1½ ounces of butter.

<sup>2</sup> For the adult woman this may be reduced to 182 quarts. For pregnant or nursing mother it should be 365 quarts.

<sup>3</sup> Including butter, oils, bacon, and salt pork.

<sup>4</sup> 1 pint (1½ pounds) of molasses or heavy cane or sorgo sirup is approximately equivalent in fuel value to 1 pound of granulated sugar. The unrefined molasses and sirups are also valuable for their calcium and iron content.

For information on the nutritive value and retail cost of the food combinations listed above, see pages 12 to 14.

TABLE 8.—Adequate diet at moderate cost: Approximate yearly and weekly quantities of food for families of given composition  
MODERATE-COST DIET FOR FAMILIES WITH VERY ACTIVE ADULTS

Item	2 adults		2 adults, 1 child aged 3 years		2 adults, 2 children aged 3 and 5 years		2 adults, 3 children aged 3, 5, and 8 years		2 adults, 3 children aged 3 and 5 years, boy 13 years		2 adults, 3 children aged 8 years, girl 12, boy 15		2 adults, 5 children aged 3, 8, 10 years, boy 13, girl 15	
	Year	Week	Year	Week	Year	Week	Year	Week	Year	Week	Year	Week	Year	Week
Flour, cereals.....	460	10	520	11	600	12	710	14	770	15	850	17	1,040	20
Or—Bread.....	540	10	500	11	665	13	765	15	855	16	950	18	1,120	22
Flour, cereals.....	100	7	130	2½	160	3	200	4	200	4	220	4	280	5½
Milk, or its equivalent <sup>1</sup> .....	365	7	730	14	1,095	21	1,460	28	1,460	28	1,460	28	2,180	42
Potatoes, sweetpotatoes.....	510	10	610	12	710	14	810	16	870	17	880	17	1,100	21
Dried beans, peas, nuts.....	65	1¼	65	1¼	72	1½	82	1½	102	2	120	2½	135	2½
Tomatoes, citrus fruits.....	200	4	275	5	360	7	425	8	450	9	465	9	630	12
Leafy, green, yellow vegetables.....	210	4	270	5	345	7	435	8	455	9	500	10	670	13
Dried fruits.....	70	1½	70	1½	87	1¾	100	2	117	2½	135	2½	167	3¼
Other vegetables, fruits.....	540	10	630	12	730	14	855	16	1,000	19	1,085	21	1,350	26
Fats <sup>2</sup> .....	160	3	170	3¼	185	3½	213	4	250	5	238	5	340	6½
Sugars <sup>3</sup> .....	190	3½	197	3½	212	4	242	4¾	287	5½	335	6	387	7½
Lean meat, fish, poultry.....	260	5	260	5	285	5½	345	6¾	395	7½	505	9¾	595	11½
Eggs.....	30	¾	50	1	70	1½	90	1¾	85	1¾	85	1¾	120	2½

MODERATE-COST DIET FOR FAMILIES WITH MODERATELY ACTIVE ADULTS

Item	2 adults		2 adults, 1 child aged 3 years		2 adults, 2 children aged 3 and 5 years		2 adults, 3 children aged 3, 5, and 8 years		2 adults, 3 children aged 3 and 5 years, boy 13 years		2 adults, 3 children aged 8 years, girl 12, boy 15		2 adults, 5 children aged 3, 8, 10 years, boy 13, girl 15	
	Year	Week	Year	Week	Year	Week	Year	Week	Year	Week	Year	Week	Year	Week
Flour, cereals.....	340	7	400	8	480	9	590	11	650	13	730	14	920	18
Or—Bread.....	360	7	410	8	485	9	585	11	675	13	770	15	940	18
Flour, cereals.....	100	2	130	2½	160	3	200	4	200	4	220	4	280	5½
Milk, or its equivalent <sup>1</sup> .....	365	7	730	14	1,095	21	1,460	28	1,460	28	1,460	28	2,180	42
Potatoes, sweetpotatoes.....	285	5	385	7	485	9	585	11	645	12	655	13	880	17
Dried beans, peas, nuts.....	45	1	45	1	52	1	62	1¼	82	1½	100	2	115	2
Tomatoes, citrus fruits.....	190	4	265	5	340	7	415	8	440	8	455	9	620	12
Leafy, green, yellow vegetables.....	210	4	270	5	345	7	435	8	455	9	500	10	670	13
Dried fruits.....	60	1	67	1½	77	1½	92	1¾	107	2	125	2½	157	3
Other vegetables, fruits.....	445	9	535	10	635	12	760	15	905	17	990	19	1,255	24
Fats <sup>2</sup> .....	107	2¼	117	2¼	132	2½	160	3	197	3¾	235	4½	287	5½
Sugars <sup>3</sup> .....	120	2½	127	2½	142	3	172	3½	217	4¼	265	5	317	6
Lean meat, fish, poultry.....	215	4	215	4	240	5	300	6	350	7	460	9	550	11
Eggs.....	30	¾	50	1	70	1½	90	1¾	85	1¾	85	1¾	120	2½

<sup>1</sup> Approximately equivalent to the food value of 1 quart of fluid whole milk; 17 ounces of evaporated milk; 1 quart of fluid skim milk and 1½ ounces butter; 5 ounces of American Cheddar cheese; 4½ ounces of dried whole milk; 3½ ounces of dried skim milk and 1½ ounces of butter.  
<sup>2</sup> Including butter, oils, bacon, and salt pork.  
<sup>3</sup> 1 pint (1½ pounds) of molasses or heavy cane or sorgo sirup is approximately equivalent in fuel value to 1 pound of granulated sugar. The unrefined molasses and sirups are also valuable for their calcium and iron content.

## LIBERAL DIETS

The liberal diet here suggested includes items from different food groups in such quantities and proportions as to promote better-than-average nutrition. Education in dietary habits and programs for food production and distribution may well be directed to this level. How costly the food supply will be when based on the tables shown here depends largely upon the choices made within the various food groups. If only the best qualities or grades of food are selected, if the food is purchased largely in ready-to-eat forms or in small containers, and if many rare or "luxury" foods are chosen, the cost of the diet can become very high. If, however, the selections are made from common articles of food at the height of their season, this liberal diet can be purchased at a moderate cost.

Table 9 presents the quantities of the different kinds of foods which, according to this liberal diet, would supply the yearly needs of individuals in different age and activity groups. Table 10 shows the quantities needed weekly and yearly for family groups of typical composition. Other items, such as salt, leavening agents, coffee, and tea, can be added as needed. From 2 to 4 teaspoonfuls of cod-liver oil, or its equivalent in vitamin A and vitamin D values, should be provided daily for each child under 2 years of age.

TABLE 9.—*Liberal diet: Approximate yearly quantities of food for individuals of different age, sex, and activity*

Item	Child under 4 years	Boy 4 to 6 years; girl 4 to 7 years	Boy 7 to 8 years; girl 8 to 10 years	Boy 9 to 10 years; girl 11 to 13 years	Boy 11 to 12 years; girl over 13 years; moderately active woman	Active boy 13 to 15 years; very active woman	Active boy over 15 years	Mod-erately active man	Very active man
Flour, cereals.....pounds..	45	55	65	65	65	105	125	125	200
Or—									
Bread.....do.....	30	45	60	60	60	120	150	150	240
Flour, cereals.....do.....	25	25	25	25	25	25	25	25	40
Milk, or its equivalent <sup>1</sup> .....quarts..	365	365	365	365	<sup>2</sup> 365	<sup>2</sup> 365	240	182	182
Potatoes, sweetpotatoes.....pounds..	100	100	100	100	110	150	300	150	350
Dried beans, peas, nuts.....do.....		2	3	5	5	10	10	10	10
Tomatoes, citrus fruits.....do.....	75	75	80	90	110	120	120	120	120
Leafy, green, and yellow vegetables.....do.....	60	75	90	90	120	150	180	180	180
Dried fruits.....do.....	5	5	8	10	15	25	30	25	30
Other vegetables, fruits.....do.....	140	200	300	300	300	350	400	400	400
Fats <sup>3</sup> .....do.....	10	15	27	35	40	65	80	65	100
Sugars <sup>4</sup> .....do.....	7	15	30	35	40	75	115	75	115
Lean meat, poultry, fish.....do.....	10	40	90	120	150	200	250	220	250
Eggs.....dozen.....	25	30	30	30	30	30	30	30	30

<sup>1</sup> Approximately equivalent to the food value of 1 quart of fluid whole milk; 17 ounces of evaporated milk; 1 quart of fluid skim milk and 1½ ounces of butter; 5 ounces of American Cheddar cheese; 4½ ounces of dried whole milk; 3½ ounces of dried skim milk and 1½ ounces of butter.

<sup>2</sup> For the adult woman this may be reduced to 182 quarts. For pregnant or nursing mother it should be 365 quarts.

<sup>3</sup> Including butter, oils, bacon, and salt pork.

<sup>4</sup> 1 pint (1½ pounds) of molasses or heavy cane or sorgo sirup is approximately equivalent in fuel value to 1 pound of granulated sugar. The unrefined molasses and sirups are also valuable for their calcium and iron content.

For information on the nutritive value and retail cost of the food combinations listed above, see pages 12 to 14.

TABLE 10.—*Liberal diet: Approximate yearly and weekly quantities of food for families of given composition*  
LIBERAL DIET FOR FAMILIES WITH VERY ACTIVE ADULTS

Item	2 adults		2 adults, 1 child aged 3 years		2 adults, 2 children aged 3 and 5 years		2 adults, 3 children aged 3, 5, and 8 years		2 adults, 3 children aged 3 and 5 years, boy 13 years		2 adults, 3 children aged 8 years, girl 12, boy 15		2 adults, 5 children aged 3, 8, 10 years, boy 13, girl 15	
	Year	Week	Year	Week	Year	Week	Year	Week	Year	Week	Year	Week	Year	Week
Flour, cereals.....pounds.....	300	6	350	7	400	8	470	9	510	10	540	11	650	13
Or—Bread.....do.....	360	7	390	8	435	9	495	10	555	11	600	12	690	13
Flour, cereals.....do.....	65	1	90	1½	115	2	140	2½	140	2½	140	2½	190	3½
Milk, or its equivalent <sup>1</sup> .....quarts.....	365	7	730	14	1,095	21	1,460	28	1,460	28	1,460	28	2,190	42
Potatoes, sweetpotatoes.....pounds.....	500	10	600	12	700	13	800	15	850	16	850	16	1,060	20
Dried beans, peas, nuts.....do.....	20	½	20	½	22	½	25	½	32	¾	38	¾	43	1
Tomatoes, citrus fruits.....do.....	240	5	315	6	390	8	465	9	510	10	530	10	715	14
Leafy green, yellow vegetables.....do.....	330	6	390	7	465	9	555	11	615	12	660	13	840	16
Other vegetables, fruits.....do.....	55	1	60	1	65	1¼	73	1½	90	1¾	98	2	118	2¼
Fats <sup>2</sup> .....do.....	750	14	890	17	1,090	21	1,390	27	1,440	28	1,700	33	2,140	41
Other vegetables, fruits.....do.....	165	3	175	3¼	190	3½	217	4	255	5	292	5½	342	6½
Sugars <sup>3</sup> .....do.....	190	3½	197	4	212	4¼	242	4¾	287	5½	330	6½	377	7
Lean meat, poultry, fish.....do.....	450	8½	460	9	500	9½	590	11½	700	13½	860	16½	1,020	19½
Eggs.....dozen.....	60	1	85	1½	115	2¼	145	2¾	145	2¾	150	2¾	205	4

LIBERAL DIET FOR FAMILIES WITH MODERATELY ACTIVE ADULTS

Item	2 adults		2 adults, 1 child aged 3 years		2 adults, 2 children aged 3 and 5 years		2 adults, 3 children aged 3, 5, and 8 years		2 adults, 3 children aged 3 and 5 years, boy 13 years		2 adults, 3 children aged 8 years, girl 12, boy 15		2 adults, 5 children aged 3, 8, 10 years, boy 13, girl 15	
	Year	Week	Year	Week	Year	Week	Year	Week	Year	Week	Year	Week	Year	Week
Flour, cereals.....pounds.....	190	4	235	4½	290	5½	355	7	395	7½	425	8	535	10
Or—Bread.....do.....	210	4	240	5	285	6	345	7	405	8	450	9	540	10
Flour, cereals.....do.....	50	1	75	1½	100	2	125	2½	125	2½	125	2½	175	3½
Milk, or its equivalent <sup>1</sup> .....quarts.....	365	7	730	14	1,095	21	1,460	28	1,460	28	1,460	28	2,190	42
Potatoes, sweetpotatoes.....pounds.....	260	5	360	7	460	9	560	11	610	12	610	12	820	16
Dried beans, peas, nuts.....do.....	15	½	15	½	17	½	20	½	27	¾	33	¾	38	1
Tomatoes, citrus fruits.....do.....	230	4	305	6	380	7	460	9	500	10	520	10	705	14
Leafy green, yellow vegetables.....do.....	300	6	360	7	435	8	525	10	585	11	630	12	810	16
Other vegetables, fruits.....do.....	40	1	45	1	50	1	58	1	75	1½	83	1½	103	2
Fats <sup>2</sup> .....do.....	700	13	840	16	1,040	20	1,340	26	1,390	27	1,650	32	2,090	40
Other vegetables, fruits.....do.....	105	2	115	2	130	2½	157	3	195	3¾	232	4½	282	5½
Sugars <sup>3</sup> .....do.....	115	2½	122	2½	137	2½	167	3	212	4	255	5	302	6
Lean meat, poultry, fish.....do.....	370	7	380	7½	420	8	510	10	630	12	780	15	940	18
Eggs.....dozen.....	60	1	85	1½	115	2¼	145	2¾	145	2¾	150	2¾	205	4

<sup>1</sup> Approximately equivalent to the food value of 1 quart of fluid whole milk; 17 ounces of evaporated milk; 1 quart of fluid skim milk and 1½ ounces of butter; 5 ounces of American Cheddar cheese; 4½ ounces of dried whole milk; 3½ ounces of dried skim milk and 1½ ounces of butter.  
<sup>2</sup> Including butter, oils, bacon, and salt pork.  
<sup>3</sup> 1 pint (1½ pounds) of molasses or heavy cane or sorgo sirup is approximately equivalent in fuel value to 1 pound of granulated sugar. The unrefined molasses and sirups are also valuable for their calcium and iron content.

## NUTRITIVE VALUE OF SUGGESTED DIETS

Table 11 shows how many calories, and how much protein, certain minerals, and vitamins adequate diets should supply if they are to furnish not only the minimum requirements of the body but an ample margin of safety as well.

TABLE 11.—Quantities of nutrients for individuals per day, used in comparing the adequacy of the 4 suggested diets

Individuals by age, sex, and activity groups	Dietary allowance in—						
	Energy value	Protein	Calcium	Phosphorus	Iron	Vitamin A	Vitamin C
	<i>Calories</i>	<i>Grams</i>	<i>Grams</i>	<i>Grams</i>	<i>Grams</i>	<i>Units</i>	<i>Units</i>
Child under 4 years.....	1,200	45	1.00	1.00	0.006-0.009	3,000	75
Boy 4-6; girl 4-7 years.....	1,500	55	1.00	1.00	.008- .011	3,000	80
Boy 7-8; girl 8-10 years.....	2,100	65	1.00	1.00	.011- .015	3,500	85
Boy 9-10; girl 11-13 years.....	2,400	75	1.00	1.20	.012- .015	3,500	90
Moderately active woman; boy 11-12 years; girl over 13 years.....	2,500	75	1.00	1.20	.013- .015	4,000	95
Very active woman; active boy 13-15 years.....	3,000	75	.88	1.32	.015	4,000	100
Active boy over 15 years.....	3,000-4,000	75	.88	1.32	.015	4,000	100
Moderately active man.....	3,000	67	.68	1.32	.015	4,000	100
Very active man.....	4,500	67	.68	1.32	.015	4,000	100

Table 12 shows the percentage of the allowance for each nutrient furnished by the suggested diets. A figure of 100 or more means that the dietary standards have been amply met. Some nutrients are provided more abundantly than others.

If in table 12 a figure below 100 appears for energy it means that the diet furnishes less food than will provide for as much activity as the dietary standard permits. Figures below 100 for energy appear for relatively few individuals even in the case of the restricted diet for emergency use, and no figure is strikingly low. A small surplus of energy-yielding food is provided by most of the diets.

The three adequate diets provide an ample amount of protein. The restricted diet for emergency use provides protein about as generously as it supplies other specified nutrients.

A figure as low as 67 for the mineral elements means that probable minimum requirements have been met, but that there is no margin for safety. The restricted diet for emergency use furnishes a somewhat smaller margin for safety in calcium, phosphorus, and iron than is desirable, but undoubtedly it provides enough for minimum requirements. The adequate diets furnish a margin of safety which is very generous in the case of calcium and phosphorus. In the case of iron, the margin of safety is ample, but smaller than for other nutrients.

A figure as low as 50 for the vitamins means that probable minimum requirements have been met, but that the margin of safety is less than is desirable. All of the adequate diets are very well fortified with both vitamins A and C.

TABLE 12.—Nutritive content of the 4 suggested diets for individuals by age, sex, and activity groups, in terms of percentages of dietary allowances for each group

[Dietary allowances shown in table 11=100]

## RESTRICTED DIET FOR EMERGENCY USE

Individuals by age, sex, and activity groups	Percentage of dietary allowances provided by suggested diet in—						
	Energy	Protein	Calcium	Phosphorus	Iron	Vitamin A	Vitamin C
Child under 4 years.....	90	84	79	84	54- 82	87	95
Boy 4-6; girl 4-7 years.....	104	89	84	100	60- 82	88	91
Boy 7-8; girl 8-10 years.....	95	92	89	117	57- 78	86	100
Boy 9-10; girl 11-13 years.....	92	87	91	104	63- 79	89	101
Moderately active woman; boy 11-12 years; girl over 13 years.....	93	89	92	108	68- 78	78	96
Very active woman; active boy 13-15 years.....	104	111	111	115	82	74	88
Active boy over 15 years.....	93-123	128	117	131	93	66	87
Moderately active man.....	101	113	96	100	83	59	84
Very active man.....	95	163	115	138	115	53	89

## ADEQUATE DIET AT MINIMUM COST

Child under 4 years.....	116	131	150	138	77-115	157	132
Boy 4-6; girl 4-7 years.....	115	124	154	153	78-108	159	128
Boy 7-8; girl 8-10 years.....	102	111	126	148	71- 96	140	140
Boy 9-10; girl 11-13 years.....	102	104	129	132	78- 98	155	143
Moderately active woman; boy 11-12 years; girl over 13 years.....	105	109	131	137	84- 97	144	137
Very active woman; active boy 13-15 years.....	116	133	155	142	99	134	119
Active boy over 15 years.....	101-135	149	159	158	109	117	112
Moderately active man.....	113	137	151	127	99	117	115
Very active man.....	104	188	169	165	132	104	116

## ADEQUATE DIET AT MODERATE COST

Child under 4 years.....	113	111	131	121	76-113	146	167
Boy 4-6; girl 4-7 years.....	111	109	134	133	77-106	150	166
Boy 7-8; girl 8-10 years.....	103	109	138	147	71- 96	150	169
Boy 9-10; girl 11-13 years.....	102	103	141	131	81-101	162	173
Moderately active woman; boy 11-12 years; girl over 13 years.....	106	105	142	134	87-100	149	179
Very active woman; active boy 13-15 years.....	116	127	170	139	110	169	190
Active boy over 15 years.....	105-141	137	132	137	135	152	193
Moderately active man.....	114	131	134	113	111	139	169
Very active man.....	101	160	146	135	141	143	190

## LIBERAL DIET

Child under 4 years.....	113	113	132	123	80-120	152	173
Boy 4-6; girl 4-7 years.....	110	109	135	135	81-111	162	181
Boy 7-8; girl 8-10 years.....	102	111	139	150	75-102	162	195
Boy 9-10; girl 11-13 years.....	98	104	140	131	81-102	173	191
Moderately active woman; boy 11-12 years; girl over 13 years.....	103	112	143	138	91-105	166	208
Very active woman; active boy 13-15 years.....	116	135	172	144	117	190	229
Active boy over 15 years.....	101-135	141	133	136	140	180	254
Moderately active man.....	111	137	137	115	117	167	233
Very active man.....	101	167	149	136	147	187	254

## COST OF SUGGESTED DIETS

At the retail prices prevailing from July 1931 through June 1932, the cost of the restricted diet for the moderately active man was about \$60 per year; of the minimum-cost adequate diet, \$86; of the moderate-cost adequate diet, \$152; and of the liberal diet, \$185 per year. This figure for the liberal diet is a very modest one. It does not include the cost of "luxury" foods.

Table 13 shows for each diet the relative cost of food for different individuals in terms of the cost of the diet for the moderately active man. The food of young children costs from one half to three fourths as much as that of the moderately active man. These relative values may be used as scales for estimating the cost of food for a family group when the cost of a well-balanced diet for one individual is known. They may also be used as factors for determining the number of adult-food-cost units in family or institutional groups when estimating the cost of food per man per day.

TABLE 13.—*Relative cost of food for different individuals according to each of 4 diets (percent)*

[Cost of food for moderately active man=100]

Individual	Restricted diet for emergency use	Adequate diet at minimum cost	Adequate diet at moderate cost	Liberal diet
Child under 4 years.....	61	71	53	47
Boy 4-6; girl 4-7 years.....	72	78	61	56
Boy 7-8; girl 8-10 years.....	86	83	74	71
Boy 9-10; girl 11-13 years.....	92	91	83	77
Boy 11-12 years; girl over 13 years; moderately active woman.....	97	96	89	85
Active boy 13-15 years; very active woman.....	113	110	109	104
Active boy over 15 years.....	124	117	117	113
Moderately active man.....	100	100	100	100
Very active man.....	123	122	118	117

In general, the restricted diet costs about two fifths as much as the liberal diet, and the minimum-cost adequate diet from one half to two thirds as much.

At the retail prices of July 1931 through June 1932, the cost of a monthly food supply for a family of five (two moderately active adults and children aged 3, 5, and 13 years) was \$22.85, \$32.25, \$51.50, and \$59.50 respectively, for the restricted diet for emergency use, the adequate diet at minimum cost, the adequate diet at moderate cost, and the liberal diet. During the months for which the retail prices for food were averaged as a basis for computing food costs, the food index of the Bureau of Labor Statistics dropped from 119 to 101.3 percent of the 1913 level. The average for the period was 111.1 percent.

#### DISTRIBUTION OF EXPENDITURES AMONG VARIOUS GROUPS OF FOODS

If families with children purchase their food supplies in accordance with the diets suggested in tables 3 to 10, each food dollar will be spent approximately as follows:

##### RESTRICTED DIET FOR EMERGENCY USE

25 to 30 cents for milk and cheese (one fourth or more).	20 cents for bread, flour, and cereals (one fifth or more).
25 to 20 cents for fruits and vegetables (not more than one fourth).	20 cents for fats, sugars, and accessories (about one fifth).
10 cents for lean meat, fish, and eggs (about one tenth).	

## ADEQUATE DIET AT MINIMUM COST

30 to 35 cents for milk and cheese (one third or more).	15 cents for bread, flour, and cereals (about one seventh).
25 to 20 cents for fruits and vegetables (not more than one fourth).	15 cents for fats, sugars, and accessories (about one seventh).
15 cents for lean meat, fish, and eggs (about one seventh).	

## ADEQUATE DIET AT MODERATE COST

25 to 30 cents for milk and cheese (one fourth or more).	10 cents for bread, flour, and cereals (about one tenth).
30 to 25 cents for fruits and vegetables (one fourth or more).	15 to 20 cents for fats, sugars, and accessories (about one sixth).
20 to 15 cents for lean meat, fish, and eggs (not more than one fifth).	

## LIBERAL DIET

30 cents for milk, cheese, butter, and cream (one fourth to one third).	25 to 30 cents for lean meat, fish, and eggs (about one fourth).
30 cents for fruits and vegetables (not more than one third).	15 to 10 cents for bread, flour, cereals, fats, sugars, and accessories (about one eighth).

Families of adults will spend relatively less for milk, perhaps more for fats, sugars, and cereals, and more for lean meat, fish, and eggs than families with children. The budgeting of the food money suggested above may be compared with Henry C. Sherman's recommendation that—

Whatever the level of expenditure, it seems wise to observe the two following rules: (1) At least as much should be spent for milk (including cream and cheese if used) as for meats, poultry, and fish; and (2) at least as much should be spent for fruits and vegetables as for meats, poultry, and fish.

The prominence assigned to different kinds of food varies from diet to diet because relative to their cost some foods and groups of foods yield better returns in nutritive values than others. Grain products, dried legumes, and potatoes are given special prominence in the two diets of lowest cost; other vegetables, fruits, lean meats, fish, and eggs, in the two diets of highest nutritive content and cost. Milk and other dairy products are emphasized in all diets, but are given special prominence in the three adequate diets.



