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NUTRITIVE VALUE OF FOOD AVAILABLE FOR CONSUMPTION,

UNITED STATES, 1909-64

Agricultural Research Service
UNITED STATES DEPARTMENT OF AGRICULTURE

PREFACE

Estimates of per capita food consumption and of selected nutrients provided by the food supply are made annually by the U.S. Department of Agriculture. Statistical Bulletin No. 364, U.S. Food Consumption...Sources of Data and Trends, 1909-63, issued by the Economic Research Service, include these estimates along with other information on food consumption from 1909-63. Chapter 5 from this bulletin on the nutritive value of the food supply, which was prepared by Consumer and Food Economics Research Division, is reproduced here with slight changes to make the information more readily available to workers in food and nutrition research and related programs. Data for 1964 have been added. A brief summary of the derivation of the estimates of food consumption from Statistical Bulletin No. 364 is included along with pertinent tables.

The nutritive value of per capita food consumption is published annually in the Outlook (fall) issue of the National Food Situation, a quarterly publication of the Economic Research Service. Reprints of this portion of the National Food Situation are available from the Consumer and Food Economics Research Division, Agricultural Research Service, USDA, Federal Center Building, Hyattsville, Md. 20782.

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HOW ESTIMATES OF FOOD CONSUMPTION ARE DERIVED

Estimates of per capita consumption of foods made by commodity specialists of Economic Research Service are sometimes referred to as "disappearance data" because of the method by which they are derived. To estimate civilian consumption, these specialists use statistics on the Nation's food production, imports and exports, net changes in stocks, military takings, and amounts used for feed, seed, and nonfood products. Remaining food is considered to have "disappeared" into civilian consumption.

The estimates of consumption for about 250 foods are made at different points in the distribution system. For each food commodity, specialists select the point of distribution that will furnish the best available information and before primary products are combined in the manufacture of final consumer products. For example, foods such as eggs, fresh fruits, and vegetables are measured at the farm level. Other foods such as meat are measured at the packing house level in carcass weight and canned fruits and vegetables in processed form at the canneries. Flour is measured at the mill level rather than in final product form such as bread or other bakery products. By the use of average waste or loss factors, nonprocessed foods such as fresh vegetables and partly processed food items such as meat carcasses are converted to equivalent retail weights. Thus, food consumption estimates are expressed in terms of the approximate retail weights at the grocery-store level of distribution. These estimates are used in the nutrient calculations.

NUTRITIVE VALUE OF FOOD AVAILABLE FOR CONSUMPTION

Periodic estimates of the nutritive value of foods available for consumption provide a basis for determining trends in supplies of nutrients furnished by the Nation's food. The total number of calories and amounts of protein, fat, carbohydrate, three minerals, and five vitamins available for consumption per capita per day are shown in table 1. A companion table, number 2, provides data on the food sources of these nutrients at various points in time.

Nutrient trends reflect changes in foods consumed over time which have resulted from changes in supplies, incomes, and tastes. The changes also reflect the increased use of certain synthetic nutrients in foods. In general, the drop in the quantity of some nutrients in the mid-thirties can be attributed to the effect of low incomes on food consumption. Likewise, the subsequent rise

Table 1.--Nutrients available for consumption per capita per day, 1909-64, and selected periods 1/

Year	Food energy	Protein	Fat	Carbohydrate	Calcium	Phosphorus	Iron 2/	Vitamin A value 3/	Thiamine 2/	Riboflavin 2/	Niacin 2/	Ascorbic acid 4/
	Calories	Grams	Grams	Grams	Grams	Grams	Milligrams	Int'l units	Milligrams	Milligrams	Milligrams	Milligrams
1909	3,530	104	127	497	0.83	1.58	15.5	7,800	1.68	1.88	19.5	105
1910	3,490	102	124	495	.80	1.55	15.3	7,600	1.63	1.82	19.3	107
1911	3,470	101	126	488	.78	1.52	15.2	7,500	1.63	1.80	18.7	99
1912	3,470	102	124	490	.85	1.57	15.2	7,600	1.65	1.88	19.0	104
1913	3,460	100	125	489	.83	1.54	14.8	7,400	1.63	1.84	18.6	103
1909-13	3,490	102	125	492	.82	1.55	15.2	7,600	1.64	1.84	19.0	104
1914	3,440	98	127	483	.80	1.49	14.5	7,300	1.58	1.78	18.1	100
1915	3,430	97	126	481	.80	1.50	14.6	7,600	1.60	1.79	18.3	105
1916	3,380	96	126	470	.79	1.47	14.3	7,500	1.57	1.77	17.9	96
1917	3,330	96	122	469	.81	1.50	14.7	7,800	1.54	1.79	18.2	98
1918	3,380	97	129	464	.86	1.54	15.3	7,700	1.60	1.87	18.3	102
1919	3,440	97	130	478	.84	1.51	15.1	8,000	1.55	1.83	18.5	100
1920	3,290	93	123	457	.84	1.47	14.6	7,900	1.52	1.82	17.5	104
1921	3,200	91	122	441	.83	1.44	14.0	7,800	1.50	1.79	17.1	104
1922	3,430	94	129	480	.84	1.48	14.5	8,300	1.53	1.83	17.5	104
1923	3,440	96	135	466	.84	1.51	14.8	8,100	1.62	1.85	18.5	109
1924	3,460	96	135	474	.85	1.51	14.7	7,800	1.60	1.86	18.2	108
1925	3,450	95	134	474	.85	1.48	14.3	7,700	1.54	1.84	17.9	106
1926	3,460	94	133	478	.85	1.48	14.4	8,000	1.51	1.84	17.6	104
1927	3,470	95	134	477	.86	1.50	14.4	8,200	1.55	1.84	17.8	105
1928	3,490	94	135	482	.86	1.49	14.4	7,900	1.57	1.84	17.7	105
1929	3,460	94	137	471	.88	1.51	14.3	8,300	1.57	1.86	17.9	111
1925-29	3,470	95	135	476	.86	1.49	14.4	8,000	1.55	1.84	17.8	106
1930	3,440	93	134	474	.87	1.48	14.2	8,000	1.54	1.84	17.3	103
1931	3,390	92	135	460	.86	1.47	14.1	8,200	1.55	1.84	17.6	109
1932	3,320	91	133	448	.86	1.45	13.7	8,400	1.53	1.82	17.2	107
1933	3,280	90	133	436	.86	1.43	13.6	8,100	1.50	1.80	17.1	105
1934	3,260	91	134	429	.86	1.44	14.0	8,300	1.48	1.81	17.3	108
1935	3,200	88	127	436	.87	1.42	13.5	8,300	1.39	1.78	16.7	112
1936	3,290	91	133	438	.89	1.46	13.9	8,000	1.42	1.81	17.3	109
1937	3,260	90	133	433	.89	1.45	13.6	8,400	1.42	1.83	16.9	110
1938	3,260	90	133	433	.90	1.46	13.7	8,400	1.44	1.83	17.0	114
1939	3,340	92	139	439	.91	1.48	14.0	8,600	1.50	1.87	17.3	116
1935-39	3,270	90	133	436	.89	1.46	13.8	8,300	1.43	1.82	17.1	112
1940	3,350	93	143	429	.92	1.50	14.2	8,500	1.55	1.90	17.8	115
1941	3,410	94	144	443	.93	1.51	14.4	8,700	1.64	1.92	18.3	115
1942	3,320	97	140	425	.98	1.56	15.4	9,100	1.83	2.00	18.7	117
1943	3,360	100	142	428	.99	1.60	16.1	9,500	2.05	2.15	20.0	115
1944	3,350	99	142	426	1.00	1.60	17.5	9,700	2.09	2.37	22.5	125
1945	3,300	102	138	418	1.06	1.66	17.9	10,000	2.06	2.46	22.7	125
1946	3,320	102	143	412	1.08	1.69	18.2	9,600	2.15	2.48	23.1	123
1947	3,290	97	143	412	1.02	1.57	17.2	9,100	1.94	2.33	21.5	119
1948	3,200	94	140	397	.99	1.53	16.4	8,700	1.89	2.26	20.8	112
1949	3,200	94	140	399	.98	1.52	16.4	8,500	1.89	2.25	20.8	109
1947-49	3,230	95	141	403	.99	1.54	16.7	8,700	1.91	2.28	21.0	113
1950	3,260	94	145	402	.99	1.53	16.5	8,400	1.90	2.29	20.2	105
1951	3,160	93	139	391	.98	1.51	16.1	8,000	1.90	2.27	19.9	107
1952	3,190	94	143	389	1.00	1.53	16.2	8,000	1.90	2.31	20.1	105
1953	3,170	95	142	386	.98	1.52	16.3	8,100	1.85	2.30	20.5	106
1954	3,150	94	142	380	.98	1.51	16.0	8,000	1.81	2.28	20.1	105
1955	3,180	95	146	378	1.00	1.53	16.2	8,200	1.87	2.31	20.3	106
1956	3,180	96	146	378	.99	1.54	16.4	8,200	1.87	2.32	20.7	105
1957	3,110	95	141	372	.98	1.52	16.1	8,100	1.83	2.29	20.5	107
1958	3,120	94	142	375	.97	1.50	16.1	8,000	1.82	2.27	20.5	102
1959	3,170	95	147	376	.98	1.52	16.2	8,100	1.88	2.29	20.8	106
1957-59	3,140	95	143	374	.98	1.51	16.1	8,000	1.84	2.28	20.6	105
1960	3,140	95	143	375	.97	1.51	16.3	8,000	1.85	2.27	20.9	108
1961	3,120	95	142	374	.96	1.50	16.4	7,800	1.84	2.26	21.0	107
1962	3,120	94	142	373	.96	1.49	16.3	7,800	1.83	2.25	21.0	107
1963	3,150	96	145	371	.96	1.51	16.5	7,900	1.84	2.26	21.4	102
1964 5/	3,170	97	147	371	.96	1.51	16.6	7,700	1.83	2.26	21.5	99

Data for selected periods are not necessarily simple averages of the individual years because of rounding.

1/ No deduction has been made in nutrient estimates for loss or waste of food in the home, use for pet food, or for destruction or loss of nutrients during the preparation of food. Civilian per capita only, 1941 to date. 2/ Includes estimates of quantities added to flour and cereal products. 3/ Includes estimates of quantities added to margarine and to milk of all types. 4/ Includes estimates of quantities added to fruit juices and drinks. 5/ Preliminary.

in some nutrients can be correlated with rising incomes. The quantity of calcium is closely related to the consumption of milk, and quantities of vitamin A and ascorbic acid to the consumption of vegetables and fruits. Some nutrients, however, are more widely distributed in foods, and small year-to-year shifts in food consumption can be balancing in terms of nutrients furnished. The higher levels of B-vitamins and iron during the last two decades can be attributed in part to the enrichment of grain products which began in the mid-forties.

When used for purposes other than studying trends, the inherent nature of the food disappearance data should be kept in mind. This is especially true when the nutritive value of food available for consumption is compared with estimates of the nutritional needs of the Nation. One measure of nutritional needs is obtained by multiplying the National Research Council's (NRC) recommended dietary allowances for specified age-sex groups 1/ by the proportionate representation of these groups in the population for any given year. But the NRC's recommended allowances apply to nutrients in foods as eaten. Estimates of nutrients in the Nation's food supply, on the other hand, indicate what is actually available for consumption at the retail store level. These have not been adjusted for nutrient losses which may occur in food preparation or for food waste in family and restaurant kitchens and at the dining table. Hence, the two concepts are not strictly comparable.

Although ample quantities of nutrients may be available from food on an average per capita basis, food is not always available to individuals according to their nutritional needs. Some individuals may receive too little; others, more than they need. Thus, a generous margin in quantities of nutrients in relation to nutritional goals is desirable.

Estimates of the nutritive value of food available for consumption may not include the total supply of nutrients. For example, quantities of calcium and other minerals added to flour to make it self-rising are not included. The nutritive content of baking powder, yeast or dough conditioners, vitamin and mineral preparations, and calories from alcoholic beverages are also excluded.

Procedures Used

The general method used to calculate the nutritive value of food available for consumption is to multiply the pounds per capita of each food by its nutritive value per pound "as purchased." From totals of the resulting products, nutritive values per capita per day are obtained (table 1). Quantities of individual foods used in estimating the nutrient contents are tabulated and described in chapter 3, Statistical Bulletin No. 364, and summarized in table 3.

1/ National Research Council, Recommended Dietary Allowances, Pub. No. 1146, p. vii. Revised 1964. Washington, D.C.

Table 2.--Percentage of total nutrients contributed by major food groups, selected periods 1/

Year	Meat, poultry, fish, including fat pork cuts				Eggs	Dairy products excluding butter	Fats and oils including butter		Fruits including melons					Vegetables excluding potatoes and sweetpotatoes					Potatoes and sweetpotatoes			Dry beans, peas, nuts, soya products	Flour and cereal products	Sugars and other sweeteners	Coffee and cocoa products 3/	All food 2/
	Meat	Poultry	Fish	Total 2/			Butter	Total	Citrus		Other		Total 2/	Dark green and deep yellow		Other, including tomatoes		Total 2/	Potatoes	Sweetpotatoes						
									Fresh	Processed	Fresh	Processed		Fresh	Processed	Fresh	Processed									
														Food energy												
1909-13	14.2	1.0	0.7	15.9	1.9	9.4	4.5	11.7	0.1	0	2.0	0.5	2.6	0.1	4/	1.4	0.3	1.8	4.0	0.8	2.3	37.6	11.7	0.3	100.0
1925-29	13.4	.9	.6	15.0	2.1	10.2	4.6	13.9	.3	4/	1.8	.9	3.0	.2	4/	1.4	.4	2.1	3.1	.7	2.5	31.0	15.9	.6	100.0
1935-39	12.9	.9	.7	14.5	2.0	11.2	4.6	15.4	.4	4/	1.8	1.1	3.3	.3	4/	1.5	.6	2.4	3.0	.7	3.0	28.2	15.7	.8	100.0
1947-49	15.4	1.3	.7	17.4	2.6	13.2	2.9	14.5	.5	0.2	1.5	1.2	3.4	.3	0.1	1.4	.9	2.6	2.6	.4	2.9	23.9	15.7	.8	100.0
1957-59	16.1	1.5	.7	18.2	2.6	13.5	2.3	16.0	.3	.4	1.3	1.3	3.3	.2	.1	1.2	1.2	2.6	2.5	.3	2.9	21.4	15.8	.8	100.0
1960	16.6	1.5	.7	18.8	2.4	13.0	2.1	16.0	.3	.5	1.3	1.4	3.4	.2	.1	1.2	1.2	2.7	2.6	.3	2.9	21.1	16.1	.8	100.0
1961	16.4	1.6	.7	18.7	2.4	12.7	2.1	16.0	.3	.4	1.2	1.4	3.3	.2	.1	1.2	1.2	2.7	2.6	.2	3.0	21.2	16.2	.8	100.0
1962	16.7	1.6	.7	19.0	2.4	12.8	2.0	16.1	.3	.5	1.2	1.4	3.4	.2	.1	1.1	1.3	2.7	2.6	.3	2.9	20.9	16.3	.7	100.0
1963	17.1	1.6	.8	19.6	2.3	12.6	2.0	16.1	.2	.4	1.1	1.4	3.1	.2	.1	1.1	1.3	2.7	2.6	.3	3.0	20.8	16.2	.8	100.0
1964 5/	17.3	1.7	.8	19.8	2.3	12.5	1.9	16.5	.2	.3	1.1	1.4	3.0	.2	.1	1.1	1.3	2.6	2.5	.2	2.9	20.6	16.1	.8	100.0
														Protein												
1909-13	23.8	3.3	2.9	29.9	5.2	16.4	.1	.1	.1	0	.7	.1	.9	.2	4/	2.3	.3	2.8	3.8	.4	4.5	35.8	4/	.1	100.0
1925-29	22.9	3.4	3.1	29.4	6.1	19.0	.1	.2	.2	4/	.7	.3	1.2	.4	4/	2.6	.6	3.7	3.2	.4	4.8	31.8	4/	.3	100.0
1935-39	22.7	3.4	3.1	29.3	5.8	21.1	.1	.2	.3	4/	.7	.3	1.3	.5	.1	2.8	.7	4.2	3.0	.4	5.7	28.7	4/	.5	100.0
1947-49	25.3	4.5	2.9	32.7	7.1	23.6	.1	.1	.3	.1	.6	.3	1.2	.5	.1	2.4	1.1	4.1	2.5	.2	5.0	22.9	4/	.4	100.0
1957-59	26.8	5.8	3.0	35.7	6.8	24.5	.1	.1	.2	.2	.5	.3	1.2	.4	.1	1.9	1.4	3.8	2.3	.1	5.2	19.9	4/	.4	100.0
1960	27.5	6.0	3.0	36.5	6.4	24.3	.1	.1	.2	.2	.5	.3	1.2	.4	.2	1.9	1.4	3.8	2.3	.1	5.1	19.6	4/	.4	100.0
1961	27.5	6.6	3.0	37.0	6.2	24.0	.1	.1	.2	.2	.5	.3	1.1	.4	.1	1.9	1.4	3.8	2.4	.1	5.3	19.5	4/	.4	100.0
1962	27.9	6.4	3.1	37.4	6.2	24.0	.1	.1	.2	.2	.4	.3	1.1	.3	.1	1.8	1.4	3.8	2.3	.1	5.2	19.3	4/	.4	100.0
1963	28.4	6.4	3.5	38.3	6.0	23.7	.1	.1	.1	.2	.4	.3	1.0	.3	.1	1.8	1.5	3.7	2.4	.1	5.2	19.1	4/	.4	100.0
1964 5/	29.0	6.5	3.4	39.0	5.9	23.6	.1	.1	.1	.2	.4	.3	1.0	.3	.1	1.8	1.5	3.7	2.2	.1	5.1	18.9	4/	.4	100.0
														Fat												
1909-13	34.6	1.8	1.0	37.4	3.8	14.9	14.1	36.7	4/	0	.3	4/	.3	4/	4/	.3	.1	.3	.2	.1	1.9	3.8	0	.6	100.0
1925-29	30.6	1.5	.7	32.9	3.8	15.3	13.4	40.2	4/	4/	.2	.1	.3	4/	4/	.2	.1	.4	.1	.1	2.8	2.9	0	1.2	100.0
1935-39	27.6	1.5	.8	29.9	3.5	15.8	12.9	42.5	4/	4/	.2	.1	.3	.1	4/	.3	.1	.5	.1	.1	3.3	2.5	0	1.6	100.0
1947-49	30.9	1.9	.7	33.5	4.3	17.3	7.5	37.3	4/	4/	.2	.1	.4	4/	4/	.2	.2	.5	.1	4/	3.4	1.9	0	1.4	100.0
1957-59	30.5	1.8	.8	33.0	4.0	16.5	5.7	39.4	4/	4/	.2	.1	.4	4/	4/	.2	.2	.4	.1	4/	3.2	1.5	0	1.4	100.0
1960	31.6	1.7	.8	34.1	3.8	15.4	5.3	39.5	4/	4/	.2	.1	.4	4/	4/	.2	.3	.5	.1	4/	3.4	1.5	0	1.4	100.0
1961	31.2	1.9	.8	33.9	3.7	15.2	5.2	39.8	4/	4/	.2	.1	.4	4/	4/	.2	.3	.4	.1	4/	3.5	1.5	0	1.5	100.0
1962	31.7	1.8	.8	34.3	3.7	15.2	5.0	39.8	4/	4/	.2	.1	.4	4/	4/	.2	.3	.4	.1	4/	3.3	1.5	0	1.3	100.0
1963	32.1	1.9	.9	34.9	3.5	14.8	4.8	39.4	4/	4/	.2	.1	.3	4/	4/	.2	.3	.5	.1	4/	3.6	1.5	0	1.4	100.0
1964 5/	32.2	1.9	.9	35.0	3.4	14.4	4.6	40.0	4/	4/	.1	.1	.3	4/	4/	.2	.3	.5	.1	4/	3.4	1.5	0	1.4	100.0
														Carbohydrate												
1909-13	.1	0	4/	.1	.1	4.7	4/	4/	.2	0	3.6	.9	4.7	.2	4/	2.1	.4	2.8	6.4	1.2	2.2	56.1	21.5	.3	100.0
1925-29	.1	0	4/	.1	.1	5.1	4/	4/	.5	4/	3.4	1.7	5.6	.3	4/	2.2	.7	3.3	5.1	1.1	2.1	47.3	29.9	.4	100.0
1935-39	.1	0	4/	.1	.1	5.7	4/	4/	.8	.1	3.4	2.0	6.3	.4	4/	2.5	.9	3.9	5.0	1.2	2.5	44.3	30.4	.6	100.0
1947-49	.1	0	4/	.1	.1	7.2	4/	4/	.9	.5	3.1	2.4	6.9	.5	.1	2.5	1.5	4.5	4.7	.8	2.2	40.3	32.5	.7	100.0
1957-59	.1	0	4/	.1	.1	7.7	4/	4/	.6	.9	2.7	2.9	7.1	.4	.1	2.2	2.1	4.7	4.8	.6	2.3	37.6	34.2	.7	100.0
1960	.1	0	4/	.1	.1	7.6	4/	4/	.6	1.0	2.7	2.9	7.2	.4	.1	2.2	2.1	4.8	4.8	.5	2.2	37.1	34.9	.7	100.0
1961	.1	0	4/	.1	.1	7.5	4/	4/	.6	.9	2.6	3.0	7.1	.4	.1	2.1	2.2	4.8	4.9	.5	2.3	37.1	35.0	.7	100.0
1962	.1	0	4/	.1	.1	7.5	4/	4/	.5	1.0	2.6	2.9	7.0	.4	.1	2.1	2.2	4.8	4.9	.5	2.3	36.8	35.3	.7	100.0
1963	.1	0	4/	.1	.1	7.5	4/	4/	.4	.7	2.4	3.0	6.5	.4	.1	2.1	2.3	4.9	5.1	.5	2.3	36.9	35.4	.7	100.0
1964 5/	.1	0	4/	.1	.1	7.5	4/	4/	.5	.7	2.4	3.0	6.6	.4	.1	2.0	2.4	4.9	4.8	.5	2.2	37.0	35.7	.7	100.0

Calcium																								
1909-13	2.2	0.3	1.6	4.1	2.7	67.8	0.5	0.6	0.3	0	1.4	0.4	2.1	0.8	4/	5.9	0.3	7.0	1.6	0.9	3.2	7.4	1.8	0.7	100.0
1925-29	1.9	.2	1.5	3.6	2.8	69.4	.5	.6	.5	4/	1.2	.7	2.4	1.8	0.1	5.6	.6	8.1	1.2	.7	2.9	6.1	1.3	.9	100.0
1935-39	1.7	.2	1.7	3.6	2.4	70.6	.5	.6	.8	4/	1.1	.7	2.6	2.1	.2	5.2	.7	8.1	1.0	.7	3.1	5.0	1.2	1.1	100.0
1947-49	1.8	.3	1.2	3.3	2.8	74.3	.3	.4	.8	0.2	.8	.6	2.3	1.8	.3	4.1	.9	7.0	.8	.4	2.5	3.8	1.1	1.1	100.0
1957-59	1.9	.3	1.0	3.2	2.8	76.6	.2	.4	.5	.3	.7	.7	2.1	1.3	.4	3.4	1.2	6.2	.7	.2	2.6	3.3	.8	1.1	100.0
1960	2.0	.3	.9	3.1	2.6	76.7	.2	.4	.5	.3	.6	.7	2.1	1.3	.4	3.4	1.2	6.3	.8	.2	2.5	3.3	.8	1.1	100.0
1961	2.0	.3	.9	3.2	2.6	76.4	.2	.4	.4	.3	.6	.7	2.1	1.3	.4	3.4	1.3	6.3	.8	.2	2.7	3.3	.8	1.1	100.0
1962	2.0	.3	.9	3.2	2.6	76.6	.2	.4	.4	.3	.6	.7	2.1	1.2	.4	3.3	1.3	6.2	.8	.2	2.6	3.3	.9	1.1	100.0
1963	2.1	.3	.9	3.3	2.5	76.6	.2	.4	.3	.2	.6	.7	1.9	1.2	.4	3.3	1.3	6.3	.8	.2	2.7	3.3	.9	1.1	100.0
1964 5/	2.1	.3	.9	3.4	2.5	76.7	.2	.4	.4	.2	.6	.7	1.9	1.2	.4	3.2	1.3	6.1	.7	.2	2.6	3.3	1.0	1.1	100.0
Phosphorus																								
1909-13	15.9	2.0	2.0	19.9	5.5	27.7	.2	.2	.1	0	1.2	.3	1.6	.3	4/	3.8	.4	4.5	6.3	.7	5.4	26.8	.2	.9	100.0
1925-29	14.9	2.0	2.2	19.1	6.2	31.1	.2	.3	.2	4/	1.2	.5	2.0	.6	4/	4.0	.8	5.4	5.1	.6	5.6	22.9	.2	1.6	100.0
1935-39	14.3	1.8	2.2	18.4	5.7	33.8	.2	.3	.4	4/	1.1	.6	2.1	.7	.1	4.2	.9	6.0	4.7	.6	6.5	19.8	.2	2.0	100.0
1947-49	15.9	2.4	2.0	20.3	7.0	37.4	.1	.2	.4	.2	.9	.5	2.0	.7	.1	3.6	1.3	5.8	3.8	.4	5.6	15.2	.2	2.1	100.0
1957-59	17.0	3.1	2.0	22.0	6.8	38.8	.1	.2	.2	.3	.8	.5	1.9	.5	.2	3.0	1.7	5.4	3.6	.2	5.7	13.1	.2	2.0	100.0
1960	17.5	3.2	2.0	22.7	6.4	38.6	.1	.2	.2	.3	.8	.5	1.9	.5	.2	3.0	1.8	5.5	3.7	.2	5.7	13.0	.2	2.0	100.0
1961	17.4	3.5	2.0	22.9	6.3	38.2	.1	.2	.2	.3	.8	.5	1.9	.5	.2	3.0	1.8	5.5	3.8	.2	5.9	12.9	.2	2.1	100.0
1962	17.8	3.4	2.0	23.2	6.2	38.4	.1	.2	.2	.4	.8	.5	1.9	.5	.2	2.9	1.8	5.5	3.7	.2	5.8	12.8	.2	2.0	100.0
1963	18.2	3.5	2.0	23.7	6.0	38.0	.1	.2	.2	.3	.7	.5	1.7	.5	.2	2.9	1.9	5.4	3.8	.2	5.9	12.8	.2	2.0	100.0
1964 5/	18.7	3.5	2.0	24.2	6.0	38.1	.1	.2	.2	.2	.7	.5	1.7	.5	.2	2.8	1.9	5.3	3.6	.2	5.8	12.8	.2	2.0	100.0
Iron 1/																								
1909-13	23.3	1.5	1.6	26.4	6.3	1.6	0	0	.3	0	3.7	1.3	5.4	.9	0.1	6.7	1.0	8.7	7.2	1.1	8.8	26.8	6.3	1.5	100.0
1925-29	22.3	1.5	1.4	25.2	7.2	1.9	0	0	.5	4/	3.8	2.2	6.5	2.2	.2	6.7	1.9	11.0	6.0	1.0	8.6	24.0	6.1	2.6	100.0
1935-39	21.8	1.4	1.5	24.7	6.7	2.1	0	0	.7	.1	3.6	2.5	6.9	2.7	.3	7.2	2.6	12.8	5.6	1.0	10.0	20.2	6.5	3.5	100.0
1947-49	21.4	1.6	1.2	24.1	7.2	2.1	0	0	.7	.3	2.5	2.0	5.5	2.0	.4	5.3	3.5	11.2	4.0	.5	7.2	29.7	5.3	3.1	100.0
1957-59	23.3	2.8	1.1	27.1	7.1	2.3	0	0	.5	.4	2.2	2.2	5.2	1.4	.5	4.5	4.6	11.0	3.9	.4	7.4	28.2	4.3	3.0	100.0
1960	23.7	2.8	1.1	27.5	6.6	2.3	0	0	.4	.4	2.2	2.1	5.1	1.4	.6	4.5	4.6	11.1	4.0	.3	7.0	28.6	4.5	3.0	100.0
1961	23.4	3.0	1.1	27.5	6.4	2.3	0	0	.4	.3	2.1	2.2	4.9	1.3	.5	4.4	4.7	10.9	4.0	.3	7.4	28.6	4.5	3.1	100.0
1962	23.8	3.0	1.0	27.9	6.4	2.3	0	0	.4	.3	2.0	2.2	4.9	1.2	.6	4.3	4.7	10.9	4.1	.3	7.2	28.4	4.8	2.9	100.0
1963	24.4	3.0	1.0	28.5	6.2	2.3	0	0	.3	.3	1.9	2.2	4.6	1.2	.5	4.3	4.8	10.8	4.2	.3	7.2	28.1	4.9	3.0	100.0
1964 5/	25.1	3.0	1.0	29.1	6.1	2.3	0	0	.3	.2	1.9	2.1	4.6	1.2	.5	4.2	4.8	10.6	4.0	.3	6.9	27.8	5.3	2.9	100.0
Vitamin A value 1/																								
1909-13	19.3	2.2	.2	21.7	6.4	10.1	9.5	9.5	.2	0	8.0	1.0	9.2	8.4	.4	8.5	1.8	19.1	0	22.0	4/	2.0	0	4/	100.0
1925-29	16.4	2.0	.1	18.5	6.6	10.5	9.2	9.2	.4	4/	7.3	1.5	9.2	15.7	1.2	7.5	2.8	27.2	0	17.6	4/	1.1	0	4/	100.0
1935-39	14.3	1.8	.1	16.2	5.7	10.3	8.4	8.6	.7	4/	6.7	1.8	9.2	19.0	1.8	7.8	3.5	32.1	0	17.0	4/	.8	0	4/	100.0
1947-49	16.8	2.6	.1	19.5	7.1	11.5	5.0	7.6	.7	.3	5.9	1.6	8.3	19.1	3.5	6.9	5.3	34.8	0	10.7	4/	.5	0	4/	100.0
1957-59	17.6	2.2	.1	19.9	7.3	12.7	4.2	8.7	.4	.6	5.2	1.7	8.0	15.7	5.0	6.1	7.7	34.5	0	8.3	4/	.4	0	4/	100.0
1960	17.8	2.3	.1	20.2	6.9	12.1	3.8	8.7	.4	.7	5.3	1.8	8.2	15.8	5.9	6.2	8.2	36.0	0	7.4	4/	.4	0	4/	100.0
1961	18.1	2.5	.1	20.7	6.9	12.3	3.9	8.9	.4	.7	5.4	1.8	8.3	15.6	5.2	6.2	8.6	35.7	0	6.9	4/	.4	0	4/	100.0
1962	18.1	2.4	.1	20.6	6.8	12.3	3.8	8.6	.4	.8	5.1	1.7	8.0	15.0	5.8	6.1	8.6	35.6	0	7.7	4/	.3	0	4/	100.0
1963	18.4	2.5	.1	21.0	6.7	12.2	3.6	8.6	.3	.6	5.1	1.8	7.7	15.5	5.5	6.1	8.8	35.8	0	7.5	4/	.3	0	4/	100.0
1964 5/	19.0	2.6	.1	21.8	6.7	12.3	3.6	8.8	.4	.5	4.9	1.8	7.6	15.0	5.7	6.0	8.8	35.6	0	6.9	4/	.3	0	4/	100.0

Table 2.--Percentage of total nutrients contributed by major food groups, selected periods 1/--Continued

Year	Meat, poultry, fish, including fat pork cuts: Meat	Poultry	Fish	Total 2/	Eggs	Dairy products excluding butter	Fats and oils including butter: Butter	Total	Fruits including melons: Citrus: Fresh	Citrus: Processed	Other: Fresh	Other: Processed	Total 2/	Vegetables excluding potatoes and sweetpotatoes: Dark green and deep yellow: Fresh	Dark green and deep yellow: Processed	Other, including tomatoes: Fresh	Other, including tomatoes: Processed	Total 2/	Potatoes and sweetpotatoes: Potatoes	Sweetpotatoes	Dry beans, peas, nuts, soya products	Flour and cereal products	Sugars and other sweeteners	Coffee and cocoa products 3/	All food 2/
													Thiamine 1/												
1909-13	30.3	0.8	0.4	31.5	2.6	9.1	0	0	0.6	0	2.6	0.3	3.5	0.5	4/	6.0	0.6	7.2	11.9	1.4	7.2	25.6	4/	4/	100.0
1925-29	31.7	.8	.5	33.0	3.0	10.2	0	0	1.0	4/	2.6	.7	4.3	1.0	4/	6.9	1.1	9.1	9.8	1.2	7.2	22.0	4/	0.1	100.0
1935-39	29.5	.8	.5	30.8	2.9	11.4	0	0	1.7	0.1	2.5	.9	5.2	1.3	0.1	7.8	1.5	10.7	9.5	1.3	8.7	19.3	4/	.1	100.0
1947-49	26.6	.8	.4	27.7	2.9	10.0	0	0	1.4	.5	1.6	.7	4.2	1.0	.1	5.2	1.8	8.1	6.2	.6	5.7	34.5	4/	.1	100.0
1957-59	26.1	.9	.4	27.4	2.8	10.5	0	0	.8	1.3	1.4	.8	4.3	.8	.2	4.4	2.5	7.8	6.0	.4	6.0	34.8	4/	.1	100.0
1960	26.8	.9	.4	28.1	2.6	10.3	0	0	.8	1.4	1.4	.8	4.3	.8	.2	4.4	2.6	7.9	6.0	.3	5.7	34.5	4/	.1	100.0
1961	26.1	.9	.4	27.4	2.6	10.2	0	0	.7	1.3	1.3	.8	4.2	.8	.2	4.3	2.6	7.9	6.2	.3	6.1	35.1	4/	.1	100.0
1962	26.7	.9	.4	28.0	2.6	10.2	0	0	.7	1.5	1.3	.8	4.3	.7	.2	4.2	2.6	7.8	6.1	.3	5.8	34.7	4/	.1	100.0
1963	27.2	1.0	.5	28.7	2.5	10.2	0	0	.5	1.1	1.2	.8	3.7	.8	.2	4.2	2.7	7.9	6.3	.3	6.0	34.4	4/	.1	100.0
1964 5/	27.5	1.0	.5	29.0	2.5	10.2	0	0	.6	1.0	1.2	.8	3.7	.7	.2	4.1	2.7	7.8	6.0	.3	5.8	34.6	4/	.1	100.0
													Riboflavin 1/												
1909-13	20.6	1.4	1.4	23.5	6.7	42.0	0	0	0.2	0	2.4	0.4	2.9	0.9	4/	4.7	0.5	6.1	3.8	.7	2.3	11.3	.3	.5	100.0
1925-29	18.6	1.3	1.1	21.0	7.2	45.0	0	0	.3	4/	2.3	.6	3.2	1.6	.1	4.8	.7	7.3	3.0	.6	2.3	9.5	.2	.8	100.0
1935-39	17.4	1.2	1.1	19.8	6.6	47.8	0	0	.4	4/	2.1	.7	3.3	1.8	.1	5.0	.9	7.8	2.7	.6	2.6	7.7	.2	1.0	100.0
1947-49	16.6	1.3	.8	18.7	6.8	44.7	0	0	.4	.1	1.4	.5	2.5	1.4	.2	3.6	1.1	6.2	1.9	.3	1.9	16.1	.1	.8	100.0
1957-59	16.8	3.6	.7	21.2	6.5	45.3	0	0	.2	.2	1.2	.6	2.2	1.0	.2	3.0	1.4	5.6	1.7	.2	1.9	14.6	.1	.8	100.0
1960	17.2	3.8	.7	21.8	6.1	45.1	0	0	.2	.2	1.2	.6	2.2	1.0	.3	3.0	1.5	5.6	1.7	.2	1.8	14.6	.1	.8	100.0
1961	17.2	4.2	.7	22.0	6.0	44.5	0	0	.2	.2	1.2	.6	2.2	1.0	.2	2.9	1.5	5.6	1.7	.2	1.9	14.9	.1	.8	100.0
1962	17.4	4.1	.7	22.3	6.0	44.6	0	0	.2	.2	1.1	.6	2.1	.9	.2	2.9	1.5	5.6	1.7	.2	1.9	14.8	.1	.8	100.0
1963	17.8	4.2	.9	22.8	5.8	44.4	0	0	.2	.2	1.1	.6	2.0	1.0	.2	2.9	1.6	5.6	1.7	.2	1.9	14.7	.1	.8	100.0
1964 5/	18.2	4.2	.9	23.3	5.8	44.4	0	0	.2	.1	1.1	.6	2.0	.9	.2	2.8	1.6	5.5	1.6	.2	1.9	14.6	.1	.8	100.0
													Niacin 1/												
1909-13	33.5	6.6	3.3	43.4	.1	1.5	0	0	.2	0	2.3	0.5	2.9	.4	4/	4.4	0.8	5.6	14.2	0.7	4.8	22.6	.1	4.0	100.0
1925-29	32.2	6.6	3.6	42.4	.1	1.8	0	0	.4	4/	2.4	.8	3.6	.7	4/	4.9	1.4	7.1	11.9	.7	6.5	20.3	.1	5.6	100.0
1935-39	31.7	6.3	4.2	42.2	.1	2.0	0	0	.6	4/	2.3	.9	3.8	.9	.1	5.5	1.8	8.3	11.1	.7	7.7	17.0	.1	6.9	100.0
1947-49	30.2	7.0	3.2	40.4	.1	1.9	0	0	.5	.2	1.7	.7	3.1	.7	.1	4.0	2.3	7.1	7.8	.3	6.1	26.0	.1	7.2	100.0
1957-59	32.1	6.6	3.5	42.3	.1	2.0	0	0	.3	.4	1.5	.8	3.0	.6	.2	3.2	3.0	6.9	7.4	.2	6.3	25.2	4/	6.4	100.0
1960	32.4	6.6	3.5	42.5	.1	1.9	0	0	.3	.4	1.5	.8	3.1	.6	.2	3.2	3.1	7.0	7.4	.2	6.4	25.1	4/	6.3	100.0
1961	32.2	7.0	3.6	42.8	.1	1.9	0	0	.3	.4	1.4	.8	3.0	.6	.2	3.1	3.1	6.9	7.5	.2	6.5	24.8	4/	6.3	100.0
1962	32.5	7.0	3.6	43.1	.1	1.9	0	0	.3	.5	1.3	.8	2.9	.5	.2	3.1	3.1	6.9	7.4	.2	6.5	24.6	.1	6.3	100.0
1963	32.8	7.1	4.4	44.3	.1	1.8	0	0	.2	.3	1.2	.8	2.6	.5	.2	3.0	3.1	6.8	7.5	.2	6.4	24.0	4/	6.2	100.0
1964 5/	33.7	7.2	4.3	45.1	.1	1.8	0	0	.2	.3	1.2	.8	2.5	.5	.2	2.9	3.1	6.7	7.1	.2	6.5	23.9	4/	6.0	100.0
													Ascorbic Acid 1/												
1909-13	1.1	0	4/	1.1	0	4.4	0	0	5.7	0	10.5	.4	16.5	4.6	.1	35.1	2.4	42.1	31.2	4.6	4/	0	4/	0	100.0
1925-29	1.0	0	4/	1.0	0	4.5	0	0	9.4	.1	10.2	.9	20.6	8.7	.2	33.8	3.4	46.0	24.1	3.9	4/	0	4/	0	100.0
1935-39	.8	0	4/	.8	0	4.3	0	0	13.3	.8	8.6	1.2	24.0	10.1	.2	31.6	4.1	46.0	21.1	3.7	4/	0	4/	0	100.0
1947-49	1.0	0	4/	1.0	0	4.8	0	0	14.7	5.7	7.1	1.8	29.2	9.8	.6	27.7	6.0	44.0	18.7	2.2	4/	0	4/	0	100.0
1957-59	1.1	0	4/	1.1	0	5.2	0	0	9.6	12.5	6.5	4.4	33.0	8.1	1.2	22.7	8.1	40.0	19.2	1.5	4/	0	4/	0	100.0
1960	1.0	0	4/	1.0	0	4.9	0	0	9.2	13.3	6.3	4.9	33.7	8.2	1.2	22.2	8.2	39.9	19.1	1.3	4/	0	4/	0	100.0
1961	1.0	0	4/	1.0	0	4.9	0	0	8.5	12.5	6.5	5.9	33.3	8.6	1.2	21.9	8.4	40.0	19.6	1.1	4/	0	4/	0	100.0
1962	1.0	0	4/	1.0	0	4.9	0	0	8.1	13.9	6.2	5.9	34.3	7.9	1.2	21.7	8.4	39.1	19.4	1.3	4/	0	4/	0	100.0
1963	1.1	0	4/	1.1	0	5.1	0	0	6.6	10.6	6.3	6.5	30.0	8.6	1.3	22.5	9.1	41.5	20.8	1.3	4/	0	4/	0	100.0
1964 5/	1.2	0	4/	1.2	0	5.2	0	0	7.8	10.1	6.4	6.4	30.7	8.3	1.4	22.5	9.2	41.4	20.2	1.2	4/	0	4/	0	100.0

1/ Percentages were derived from nutrient data which include quantities of iron, thiamine, riboflavin, and niacin added to flour and cereal products; quantities of vitamin A value added to margarine and milk of all types; quantities of ascorbic acid added to fruit juices and drinks. 2/ Components may not add to total due to rounding. 3/ Coffee and chocolate liquor equivalent of cocoa beans. 4/ Less than 0.05 percent. 5/ Preliminary.

With few exceptions, the food composition values used in the calculations for this study were those in "Composition of Foods...raw, processed, prepared," Agriculture Handbook No. 8, revised 1963. The values are U.S. averages that represent the nutrients in foods throughout the year. They are for foods "as purchased," and allow for refuse such as bones, rinds, and peelings. They assume products are in good condition with an average amount of refuse. The values do not allow for losses in fruits and vegetables due to excessive peeling and trimming, or to bruises and rot.

Current estimates of consumption include data on approximately 250 different foods. For earlier years, however, detailed data were not available for as many individual foods. In some instances, estimates were given only for totals of groups of similar foods. Because similar foods often vary greatly in proportions of nutrients they contain, for earlier years it was necessary to approximate roughly the quantities of individual foods comprising these group totals. These approximations covered only a small percentage of all food.

For most commodities, one set of food composition values judged most representative was used consistently throughout the time series. The food composition values are averages that take into account the variety, breed, stage of maturity, and seasonal and geographic differences in foods. These factors have not remained constant over the years of this study, but there are no statistics on which to base adjusted composition values for most foods. However, differences in values and quantities consumed would have to be large in order to affect significantly the overall nutritive value of the Nation's food. In a few cases, the nutritive values per pound for a food were adjusted to account for marked changes in marketing practices and in varietal differences over the years. These changes are discussed under the specific commodity groups.

Meat, Poultry, and Fish

Meat

Supplies of meat from different species of animals were estimated in terms of carcass trimmed to a fresh, retail-cut equivalent. The nutritive values of these supplies were calculated by applying data from published tables of food composition to quantities of the different kinds of meat. For beef, data selected for computation were the nutritive values for the composite of the trimmed retail cuts from carcasses of U.S. Grade Good. No change was assumed over time in the proportion of loss from carcass to retail weight of beef and veal. The same nutritive values were used throughout the series, although they probably apply less well to beef in earlier years than to supplies currently in the retail market.

Table 3.--Food consumption per capita per year, by major food groups, 1909-64, and selected periods 1/

Year	Meat, poultry, fish				Eggs 5/	Dairy products, excluding butter (milk equivalent) 6/	Fats and oils, including butter		Fruits, including melons 8/					Vegetables, excluding potatoes and sweetpotatoes					Potatoes and sweetpotatoes 11/		Dry beans, peas, nuts, soya products 14/	Flour and cereal products	Sugar and other sweeteners 15/	Coffee, tea, cocoa 16/
									Citrus		Other			Dark green and deep yellow		Other, including tomatoes								
	Meat 2/	Poultry 3/	Fish 4/	Total			Butter	Total 7/	Fresh	Processed 9/	Fresh	Processed 10/	Total	Fresh 11/	Processed 12/	Fresh 11/	Processed 13/	Total	Potatoes	Sweetpotatoes				
	Lb.	Lb.	Lb.	Lb.	Lb.	Qt.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.	Lb.
1909	147.7	17.2	13.0	177.9	35.5	180	17.8	41.0	15.5	--	147.8	7.2	170.5	14	0.4	175	15.1	204.5	187.9	24.0	16.6	300	85.6	9.8
1910	139.0	18.0	13.2	170.2	37.1	171	18.3	41.9	16.9	--	145.1	7.6	169.6	14	.4	174	14.5	202.9	197.1	24.0	16.3	295	87.9	9.6
1911	144.6	18.1	13.3	176.0	39.9	165	18.6	41.3	18.7	--	158.4	8.4	185.5	14	.4	170	15.7	200.1	159.0	22.0	16.0	291	90.2	9.1
1912	139.1	17.4	13.3	169.8	37.7	186	16.6	38.8	17.5	--	163.9	9.2	190.6	14	.5	173	18.9	206.4	179.5	22.0	16.4	286	88.6	11.3
1913	136.8	16.9	13.5	167.2	36.8	182	16.5	40.2	15.8	--	141.1	8.2	165.1	14	.6	166	20.1	200.7	187.8	21.6	16.0	283	93.0	9.7
1909-13	141.4	17.5	13.3	172.2	37.4	177	17.6	40.6	16.8	--	151.3	8.1	176.3	14	.5	172	16.9	202.9	182.3	22.7	16.3	291	89.1	9.9
1914	133.0	16.9	13.7	163.6	35.8	175	17.0	43.5	22.9	--	158.4	9.9	191.2	15	.6	169	19.7	204.3	158.0	20.3	15.2	280	92.3	9.9
1915	129.5	16.8	13.2	159.5	37.9	174	17.2	43.2	21.9	--	154.8	11.2	187.9	15	.5	166	18.6	200.1	183.0	23.0	15.0	278	88.9	11.3
1916	134.5	16.2	13.0	163.7	36.3	173	17.3	42.2	20.9	--	137.2	12.6	170.7	15	.5	167	16.7	199.2	144.0	22.3	14.3	277	88.6	12.4
1917	129.3	15.6	12.9	157.8	34.1	176	15.7	40.1	20.9	--	133.6	14.3	168.8	17	.6	165	19.6	202.2	145.8	25.5	18.2	268	90.0	14.1
1918	134.9	15.6	12.9	163.4	34.4	192	14.1	43.4	15.7	--	130.4	12.4	158.5	17	.7	168	22.9	208.6	171.8	24.5	16.6	260	90.9	12.0
1919	133.7	16.6	13.6	163.9	36.8	183	15.2	43.3	22.3	--	126.0	16.9	165.2	16.8	.6	163.7	22.0	203.1	151.4	26.5	16.3	259	105.9	13.1
1920	130.5	16.0	13.8	160.3	36.3	186	14.9	39.7	24.7	--	148.1	16.7	189.5	17.7	.6	178.2	19.0	215.5	139.2	26.6	14.4	242	102.3	12.7
1921	128.3	15.7	12.5	156.5	36.4	186	16.3	39.5	28.9	--	120.0	14.0	162.9	21.9	.5	163.4	17.6	203.4	154.1	24.8	13.8	229	101.2	12.8
1922	131.8	16.5	13.3	161.6	38.3	186	17.1	43.1	23.3	--	155.1	14.3	192.7	22.5	.8	167.7	18.2	209.2	141.0	26.3	13.8	242	119.8	13.0
1923	141.4	16.8	12.7	170.9	39.6	183	17.8	44.7	30.8	0.1	139.6	14.7	185.2	22.9	1.1	161.0	23.0	208.0	169.8	22.6	15.4	241	106.1	14.1
1924	141.0	15.9	13.0	169.9	39.3	188	17.8	45.5	32.2	.1	146.3	15.3	193.9	23.3	.9	166.6	24.2	215.0	150.2	16.4	16.5	239	116.1	13.4
1925	133.8	16.4	13.1	163.3	38.6	189	18.1	46.8	27.4	.1	135.6	17.7	180.8	23.2	1.0	167.0	26.2	217.4	153.0	16.5	16.1	235	118.8	12.3
1926	131.1	16.3	13.4	160.8	41.0	187	18.3	47.7	29.9	.2	160.7	18.2	209.0	23.9	.9	166.1	26.8	217.7	126.0	19.3	16.3	238	120.0	14.1
1927	128.7	17.4	14.2	160.3	41.5	190	18.3	47.9	30.5	.2	124.1	19.3	174.1	23.7	1.1	165.7	23.2	213.7	137.1	22.6	17.7	239	119.2	13.5
1928	126.1	16.7	14.1	156.9	41.0	191	17.6	47.7	27.9	.2	144.2	19.2	191.5	23.3	1.5	164.7	23.8	213.3	142.7	18.9	17.6	239	121.1	13.0
1929	125.3	16.4	13.9	155.6	40.5	197	17.6	48.7	37.7	.4	131.1	18.1	187.3	25.4	2.2	168.6	26.4	222.6	153.9	20.3	16.8	236	113.9	14.1
1925-29	129.0	16.6	13.7	159.4	40.5	191	18.0	47.8	30.7	.2	139.1	18.5	188.5	23.9	1.3	166.4	25.3	216.9	142.5	19.5	16.9	237	118.6	13.4
1930	123.3	17.9	12.2	153.4	40.2	196	17.6	48.8	29.6	.7	131.2	18.4	179.9	26.0	2.2	170.7	28.3	227.2	128.8	16.6	17.6	228	125.7	13.6
1931	125.2	16.2	10.8	152.2	40.4	193	18.3	48.3	40.0	.3	148.3	16.1	204.7	26.1	1.0	166.5	25.9	219.5	132.5	18.6	18.3	226	115.3	14.3
1932	125.8	16.6	10.4	152.8	38.0	194	18.5	46.8	34.8	.5	117.5	16.1	168.9	25.7	1.3	172.3	22.3	221.6	131.6	24.7	16.4	223	110.0	13.8
1933	130.0	17.3	10.7	158.0	36.0	193	18.2	46.9	37.4	.5	113.2	17.5	168.6	25.2	1.2	169.3	22.2	217.9	129.8	21.5	15.9	213	110.9	14.4
1934	135.7	15.9	11.2	162.8	35.0	192	18.6	48.5	37.7	.9	113.4	17.7	169.7	26.1	2.0	174.1	23.6	225.8	132.6	22.0	17.7	204	110.2	13.6
1935	110.9	15.4	12.5	138.8	34.0	196	17.6	48.1	42.4	1.4	129.3	20.5	193.5	26.4	1.6	171.8	27.1	226.9	139.1	22.8	18.1	204	110.6	15.7
1936	122.6	16.4	13.7	152.7	35.0	200	16.8	49.5	43.9	1.5	117.0	23.7	186.1	26.9	2.2	171.2	28.6	228.9	127.9	17.7	19.1	208	111.5	16.1
1937	119.7	16.4	13.8	149.9	37.3	203	16.8	49.3	42.2	2.3	139.4	22.1	206.0	27.3	2.7	169.5	30.9	230.4	124.2	19.2	18.0	203	109.1	15.0
1938	120.3	15.5	12.8	148.6	37.6	204	16.6	49.1	46.6	2.7	121.9	23.9	195.1	28.1	2.5	170.8	33.1	234.5	127.0	19.0	19.5	204	107.9	16.0
1939	126.8	17.1	12.7	156.6	37.9	207	17.4	50.3	58.2	3.6	126.3	26.0	214.1	27.5	2.7	170.8	34.4	235.4	120.5	17.6	19.7	201	113.3	16.9
1935-39	120.1	16.2	13.1	149.3	36.4	202	17.0	49.3	46.7	2.3	126.8	23.2	199.0	27.2	2.3	170.8	30.8	231.2	127.7	19.3	18.9	204	110.5	15.9
1940	135.9	17.5	13.0	166.4	38.7	209	17.0	50.2	53.8	4.1	121.4	29.6	208.9	27.5	3.1	170.4	36.9	238.0	121.4	14.7	19.5	199	108.1	17.4
1941	137.0	18.8	13.2	169.0	37.7	212	16.1	51.2	54.8	5.8	126.1	26.2	212.9	27.0	3.1	165.0	39.5	234.6	126.0	16.7	19.2	199	117.9	18.0
1942	135.1	21.1	10.7	166.9	38.1	226	15.9	48.5	54.8	4.9	105.9	27.0	192.6	27.7	3.5	171.8	42.7	245.7	124.1	18.2	22.5	201	102.8	15.1
1943	143.3	26.1	9.9	179.3	41.6	231	11.8	45.0	57.2	4.0	89.6	23.4	174.2	30.9	3.2	173.5	38.5	246.0	123.2	19.2	20.5	208	100.5	13.8
1944	150.9	23.5	10.7	185.1	42.5	232	11.9	43.9	64.8	7.6	109.6	20.8	202.8	30.3	4.2	181.5	36.8	252.7	134.5	17.9	20.1	190	108.8	16.3
1945	140.9	25.5	11.9	178.3	48.4	249	10.9	42.0	63.1	7.8	108.0	26.7	205.7	32.6	4.5	184.9	45.9	267.9	119.5	16.8	20.4	201	93.2	16.9
1946	147.8	23.5	12.8	184.1	45.5	257	10.5	42.8	56.1	13.2	113.9	35.5	218.8	27.9	4.7	173.4	49.4	255.4	120.6	16.3	19.2	192	93.6	20.8
1947	147.4	22.1	12.3	181.8	46.8	241	11.2	45.1	59.0	11.9	115.7	29.9	216.5	26.7	4.1	163.3	44.3	238.4	121.7	13.8	16.4	173	113.7	18.6
1948	138.4	21.8	13.1	173.3	47.8	234	10.0	45.7	51.6	14.5	110.8	29.7	206.5	27.4	4.6	159.4	42.4	233.8	102.9	10.9	17.4	170	106.4	19.1
1949	137.6	23.3	12.9	173.8	47.4	234	10.5	45.7	45.5	14.7	108.8	31.1	200.1	25.4	4.6	149.5	43.2	222.7	107.6	11.2	16.7	169	108.5	19.5
1947-49	141.1	22.4	12.8	176.3	47.3	236	10.6	45.5	52.0	13.7	111.8	30.2	207.7	26.5	4.4	157.4	43.3	231.6	110.7	12.0	16.8	171	109.5	19.1

1950	137.8	25.1	13.8	176.7	48.5	236	10.7	49.1	39.2	14.6	97.9	34.1	185.8	24.5	4.7	145.8	46.7	221.7	102.6	11.6	19.4	167	113.1	17.6
1951	132.4	26.5	13.2	172.1	49.3	236	9.6	45.2	43.8	18.1	102.7	31.1	195.7	21.7	5.2	143.4	47.5	217.7	109.3	7.9	17.3	165	106.3	17.3
1952	139.4	27.2	13.3	179.9	49.2	242	8.6	47.3	42.1	20.6	97.5	33.9	194.1	21.5	5.4	140.3	48.0	215.2	98.3	7.6	17.2	162	108.4	17.3
1953	146.4	27.1	13.6	187.1	47.8	237	8.5	47.2	41.2	21.6	95.5	34.4	192.8	20.4	5.2	137.3	50.1	213.0	104.0	8.1	16.2	158	108.1	17.3
1954	144.9	28.5	13.5	186.9	47.4	239	8.9	48.8	39.2	22.7	93.5	34.0	189.3	20.4	5.0	135.0	49.7	210.1	103.5	8.1	16.3	155	106.0	14.7
1955	152.2	26.7	12.9	191.8	46.9	244	9.0	49.2	39.2	25.2	88.4	35.9	188.7	19.5	5.4	135.1	51.1	211.1	105.1	8.6	16.3	152	106.3	15.0
1956	154.9	30.0	12.9	197.8	46.6	244	8.7	48.5	37.0	24.9	87.9	36.8	186.4	20.6	5.4	133.8	52.0	211.7	99.1	8.1	17.1	150	107.7	15.5
1957	146.7	31.8	12.8	191.3	45.9	241	8.3	47.6	35.0	26.7	85.0	37.8	184.6	19.8	5.2	133.0	52.6	210.6	104.7	7.9	16.4	148	104.3	15.3
1958	139.6	34.4	13.3	187.3	44.9	239	8.3	48.7	29.3	23.2	90.0	37.7	180.0	19.7	5.6	129.5	53.7	208.5	100.1	7.2	16.3	149	107.4	14.7
1959	146.6	35.6	13.7	195.9	44.7	239	7.9	49.6	32.2	24.8	88.2	37.8	183.0	18.4	5.6	128.9	54.2	207.1	101.6	8.1	16.9	148	107.8	15.2
1957-59	144.3	33.9	13.3	191.5	45.2	240	8.2	48.6	32.2	24.9	87.7	37.8	182.6	19.3	5.5	130.5	53.5	208.8	102.1	7.7	16.5	148	106.5	15.1
1960	146.7	34.7	13.2	194.6	42.5	238	7.5	48.5	31.9	26.9	86.7	38.5	184.0	19.4	5.6	130.5	54.6	210.0	102.6	6.9	16.2	147	108.8	15.1
1961	145.5	38.0	13.7	197.2	41.4	235	7.4	48.4	29.2	25.0	84.5	39.1	177.9	19.5	5.4	128.3	55.1	208.3	103.7	6.3	16.9	146	109.1	15.4
1962	147.1	37.4	13.6	198.1	41.1	235	7.3	48.8	27.9	28.2	79.2	38.9	174.2	17.9	5.7	126.9	56.9	207.4	101.7	7.1	16.6	144	109.8	15.5
1963	151.7	37.9	13.6	203.2	40.1	235	6.9	49.2	21.4	20.7	78.7	40.5	161.3	18.5	5.6	126.6	57.5	208.2	104.7	6.9	16.9	144	109.9	15.6
1964 17/	155.7	38.8	13.6	208.1	39.9	236	6.8	50.6	25.0	19.1	79.2	39.8	163.1	17.6	5.6	123.5	58.1	204.8	98.7	6.2	16.5	144	111.1	15.3

1/ Quantity data used in nutrient calculations, table 1; equivalent to the retail store level of distribution. Ingredients of mixed foods are included in their respective food groups (e.g., data for eggs include eggs in bakery products, flour mixes, and all other processed food items). Civilian consumption only beginning 1941. Food groupings were selected to match those of importance to nutrient analysis. Data for individual items are found in tables 7-29 of U.S. Food Consumption, Statistical Bulletin No. 364. The data are the same as the annual summary of all foods published in table 5, chapter 3 of Bulletin No. 364, except for fruit and vegetable groupings and (1) spices are omitted, (2) concentrated fruit juices are on a single-strength equivalent basis.

2/ Fresh-retail-cut equivalent. Includes fat cuts of pork, game, and edible offal.

3/ Ready-to-cook basis. Excludes game birds.

4/ Edible-weight basis. Includes game fish, approximated at 2.0 pounds 1909-51, increasing 0.1 annually to 3.0 pounds in 1961.

5/ Shell egg basis.

6/ Milk equivalent based on calcium content. One quart of fluid milk weighs 2.15 pounds.

7/ Product weight except for "other edible fats and oils," which represents quantities used in mellorine, salad dressings, and other products.

8/ Includes melons produced in home gardens.

9/ Product weight except for concentrated citrus juices which are on a single-strength equivalent.

10/ Includes fruit baby food.

11/ Includes consumption of home-garden produce.

12/ Includes baby foods.

13/ Includes vegetable soups; tomato soup estimated to constitute one-third of the total soups through 1940, then proportion declines gradually to 20 percent in 1946 and thereafter; other vegetable soups are estimated to comprise 40 percent of total soups over the entire period; ingredients of remaining soups (meat and fish base) are counted elsewhere in this table.

14/ Data from tables 24, 25, and 29 of Statistical Bulletin No. 364. Includes dry beans and peas produced in home gardens.

15/ Excludes sugar used in production of canned and frozen fruit, canned fruit juices, canned vegetables, and unskimmed sweetened condensed milk.

16/ Includes regular coffee on a roasted basis, instant coffee on a product basis, and chocolate liquor equivalent of cocoa and chocolate products.

17/ Preliminary.

For pork other than bacon and salt pork, data on composition selected for the calculations were those for the composite of the so-called lean cuts from hog carcasses of a medium-fat class (trimmed to retail basis). The composite of these lean cuts consisted of the ham, loin, shoulder, and spareribs. Estimates for bacon and salt pork were given only in terms of total fat cuts that together represent about 28 percent of the carcass. Trade data indicated that these products were available in the proportion of about three parts of bacon to one part of salt pork. This ratio was used in developing weighted nutritive values for fat cuts. The same proportion was used for the entire series.

For lamb, data used were for the composite of the retail cuts from lamb carcasses of U.S. Grade Choice. Data for medium-fat veal carcasses were used for estimating nutritive value of supplies of veal because of lack of data on composition of veal carcasses trimmed to the retail basis.

Edible offal includes such items as liver, heart, kidney, tongue, brains, tripe, and sweetbreads. Edible offal production was computed as a percentage of meat production (carcass weight) for each species of meat animal. The total of all offal by species was divided among the various kinds of organ meats by applying a weighted average yield for each. A representative nutritive value was assigned to each component in obtaining a weighted nutritive value for all edible offal from all species for the entire series.

Poultry

An estimate was made of the proportion of mature and young chickens consumed over the years. This made it possible to apply separate nutritive values to per capita consumption estimates that account for the shift in consumption from older (stewers) to younger (roasters and fryers) birds.

Fishery Products

Information on fish and shellfish consumption has been provided by the U.S. Department of the Interior, Fish and Wildlife Service, Bureau of Commercial Fisheries. Estimates of the proportion of fatty and lean fresh and frozen fish have been made on the basis of historical data on catch of the various kinds of fresh fish. This detail has made it possible to evaluate more accurately the nutritive value of the fish and seafood supply.

Dairy Products, Excluding Butter

Per capita consumption estimates of dairy products were made in terms of quantities of individual foods except for fluid milk and cream and for ice cream and other frozen desserts. Because of the changing composition of these items over time, nutrient estimates were based on the total milkfat and residual, nonfat portion of the fluid fresh items, and on the milkfat and solids-not-fat content of ice cream and other frozen desserts.

Beginning with 1957, nutrient calculations include an estimate of the amount of vitamin A used in the fortification of milk. This estimate is based on the Census survey, "The Enrichment and Fortification of Foods, 1957-61." 2/ Estimates for 1962, 1963, and 1964 are assumed to have remained at the 1961 level.

In interpreting the nutritional contribution of dairy products, other than butter, it sometimes is desirable to convert quantities consumed to a milk equivalent on the basis of the calcium content of various dairy products. The total quantity of calcium furnished by all dairy products, excluding butter, in any year is divided by the calcium in 1 quart of milk to arrive at estimates of the number of quarts of fluid-whole-milk equivalent of the milk products. Milk and milk products are leading sources of calcium in the national diet. However, this method of converting to a milk-equivalent basis has the disadvantage of not allowing for changes in the other nutrients found in dairy products. Quarts per capita of total fluid-milk equivalent (calcium basis) of all dairy products (except butter) are shown in table 3.

Fats and Oils

In computing nutrients contributed by the fats and oils group, an estimate of the degree of fortification of margarine with vitamin A value was incorporated. No fortification was assumed for margarine before 1938. The proportions and levels of fortification assumed from 1938 to 1964 are shown below:

Year	Fortification	Level of fortification per pound
	Percent	International units
1938	65	9,000
1939	70	9,000
1940	75	9,000
1941	80	9,000
1942	85	9,000
1943	95	9,000
1944	100	9,000
1945	100	9,000
1946	10	9,000
	90	15,000
1947	5	9,000
	95	15,000
1948	1	9,000
	99	15,000
1949-64 ...	100	15,000

2/ Survey results appear in an article prepared by Berta Friend, Consumer and Food Economics Research Division, Agricultural Research Service. In 1964 Outlook Issue of National Food Situation, U.S. Department of Agriculture, Economic Research Service. NFS-106, pp. 36-40. November 1963.

Vegetables and Fruits

Vegetables

The subgroupings for vegetables are: Potatoes; sweetpotatoes; dark-green and deep-yellow vegetables; and other vegetables including tomatoes. The dark-green and deep-yellow vegetable group is being used for the first time in this series. The group brings together those vegetables that are outstanding sources of vitamin A value. The groupings for vegetables will now conform more closely to those used in dietary guidance materials and household food surveys.

Before 1919, estimates of per capita consumption of some of the vegetables within these groups were not available. A 5-year average (1919-23) of more detailed vegetable statistics was used to derive percentage distributions by which to estimate the vegetable distribution for each year prior to 1919.

Some subgroups of vegetables contain minor items that are quantitatively significant only in certain seasons or in particular regions. Included are such vegetables as collard, Chinese cabbage, parsnips, turnips, and rutabagas. The only information on supplies of such individual vegetables is from carload reports for the major cities of the United States. Distribution of individual vegetables within each of these groups was used as the basis for deriving weighted nutritive values per pound for estimates of total amounts of miscellaneous vegetables. The weighted values were used for all years.

Potatoes and Sweetpotatoes

Decreased consumption of white potatoes until the mid-1950's and sweetpotatoes might logically be expected to have resulted in a noticeable drop in amounts of ascorbic acid and vitamin A value in the Nation's food. But compensating factors have partially offset the effect of decreased use. Fall-harvested potatoes, most of which are stored for later marketing, accounted for nearly all the total white potato supply in early years. But over the years, potatoes harvested during the spring and summer and marketed after little storage have furnished an increased share of the total supply. Since new potatoes contain much more ascorbic acid than storage potatoes and since storage conditions have been much improved, the average ascorbic acid content of white potatoes per pound is higher now than in early years.

Genetic research conducted on sweetpotatoes has resulted in a substantial replacement of the paler varieties by deep-yellow or orange-fleshed ones which are higher in vitamin A value. Therefore, an adjustment was made in the vitamin A values applied to sweetpotato consumption figures for recent years.

Fruits

In the nutrient study, fruits are classified as either "citrus fruits" or "other fruits." Except for watermelons and cantaloups, estimates of per capita consumption for individual fruits were available for the entire series. Only the total of watermelons and cantaloups was available prior to 1919. The same procedure used to estimate the quantities of individual vegetables before 1919 was used to estimate the quantities of watermelons and cantaloups.

Beginning with 1957, nutrient calculations for "other fruits" include an estimate of the amount of ascorbic acid used in the fortification of fruit juices and fruit drinks. These estimates are based on the 1957-61 enrichment survey, which will be discussed in connection with enrichment of cereal products. 3/

Cereal Products

Nutritive values were used for most individual foods in the cereal group. But, for a few foods, composite values seemed more representative. Nutritive values used for "wheat cereals" assumed the use of 50 percent of the farina type and 50 percent of the shredded type of cereal. The nutritive value of corn flakes was used for all corn breakfast cereals. Cornmeal was assumed to be equal parts of white, wholeground, unbolted, and yellow degermed meals. These composite values were used throughout the series.

During 1946, about 17 percent of all white flour was assumed to be milled using an 80-percent extraction rate. A Government order effective March 1, 1946, required that wheat for human consumption be milled to 80-percent extraction. This order was withdrawn as of September 1, 1946, because long extraction flours did not produce the quality of baked products which Americans expected from white flour.

Data on supplies of self-rising and phosphated flour are not available for the entire series, so calcium contributed by these flours could not be evaluated year by year. It is estimated, however, that these products would have little effect on the per capita supply of calcium.

A major problem in estimating the nutrients contributed by grain products was to ascertain the extent to which various products were enriched or fortified after 1945. The methods used in deriving these levels are described in the following paragraphs.

3/ See footnote 2.

Enrichment of White Flour

No enrichment of white flour was assumed before 1941. For 1941-45, the industry and a USDA "bread specialist" estimated the proportion of the total flour that went into white bread and rolls. The flour was assumed to be enriched to the minimum levels promulgated by the U.S. Food and Drug Administration, as published in the Federal Register for May 27, 1941, and July 3, 1943. After the expiration in 1946 of War Food Order No. 1, requiring compulsory enrichment, it could not be assumed that enrichment was continuing at the previous rate. Consequently, the Bureau of the Census has made periodic surveys for USDA to collect information from manufacturers and distributors of synthetic vitamins and iron on the quantities of ingredients added to cereal products. 4/ The percentage of total white flour (exclusive of semolina and durum) estimated to have been enriched each year since 1940 and the estimated level of enrichment are given below:

Year	Percentage enriched	Level of enrichment
1941	20	Iron, thiamine, and niacin to the minimum levels promulgated by the U.S. Food and Drug Administration in 1941. (Federal Register, May 27, 1941.)
1942	50	As in 1941.
1943	65	Three-fourths to the same levels as in 1941-42. One-fourth with iron, thiamine, riboflavin, and niacin to the minimum levels promulgated by the U.S. Food and Drug Administration in 1943. (Federal Register, July 3, 1943.)
1944-53	65	Iron, thiamine, riboflavin, and niacin to the minimum levels promulgated by the U.S. Food and Drug Administration in 1943.
1954-64	60	As in 1944-53.

It is likely that some products were enriched above minimum levels. Since the extent of this practice cannot be determined, only minimum levels of enrichment were assumed.

4/ Surveys for the following years were published in the National Food Situation: 1946-47, NFS-49, July-Sept. 1949; 1948-49, NFS-54, Oct.-Dec. 1950; 1950-53, NFS-69, Aug. 1954; 1957-61, NFS-106, Nov. 1963. Economic Research Service, U.S. Department of Agriculture.

Enrichment of Other Cereal Products

No enrichment or fortification was assumed for wheat or corn cereals before 1939, although there may have been some during the latter part of the period. On the basis of trade data for 1939-41, half of the farina-type cereals and half of the corn cereals were assumed to be fortified with iron, thiamine, and niacin. The farina-type wheat cereal was assumed enriched to the minimum levels promulgated by the U.S. Food and Drug Administration in 1941 (Federal Register, May 27, 1941). The corn cereals were assumed fortified to minimum amounts suggested by NRC for "restored" cereals. 5/

From 1942 to 1945, all of the farina-type cereals and all of the corn cereals were assumed enriched with the same nutrients as in 1939-41 and beginning in 1944, with riboflavin.

Beginning with 1946, estimates of enrichment or fortification of cereal products were obtained from surveys made by the Bureau of the Census for USDA. But surveys before 1957 provided an estimate of the ingredients used only for the entire group of cereal products other than flour. The quantities of nutrients added to specified cereal products--ready-to-eat and hot cereals, cornmeal and hominy grits, macaroni, and rice--were not collected until the 1957-61 Census survey. 6/

The quantities of nutrients added to cereal products other than flour for 1946-53 were assumed to represent enrichment or fortification of ready-to-eat and hot cereals. No cornmeal or hominy grits were assumed to be enriched prior to 1943. Nutrient calculations for succeeding years have included enrichment ingredients. For macaroni, adjustments in calculations for enrichment were made beginning with 1945 and for rice, with 1954. Any enrichment of these products for years earlier than indicated probably was insignificant. Amounts of enriching ingredients added to cereal products, other than flour, are based on survey data, with interpolation for the years prior to 1957. Estimates for 1962, 1963, and 1964 are assumed to have remained at the 1961 level.

Sugars and Other Sweeteners

Consumption of sugars and other sweeteners has been adjusted to exclude amounts used in the manufacture of canned and frozen fruits and vegetables, and sweetened condensed milk. Nutrients in the sweeteners used in these processed products are included in their respective food groups. Therefore, the sugars and other sweeteners group in table 2 does not include the total carbohydrate and calories in all sweeteners consumed.

5/ National Research Council. Enrichment of Flour and Bread, a History of the Movement. Bull. 110, 130 pp. 1944. Washington, D.C.

6/ See footnote 2.

Miscellaneous Foods

Nutritive values for chocolate liquor were used for calculating nutritive values of chocolate products since consumption was reported on that basis. A factor of 73.7 percent has been applied to the weight of cocoa beans to obtain the weight of chocolate liquor. Revised per capita consumption estimates of cocoa beans were not available in time to recompute the nutrients.

The nutrients for coffee represent only the soluble nutrients extracted in brewing coffee. Data for coffee have been included because recent research has indicated significant quantities of niacin present.

It was not feasible to estimate the small quantities of nutrients that may be furnished by tea.

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