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Nutrient Content of the U.S. Food Supply, 1909-2000

ABSTRACT

This report presents historical data on the nutrient content of the U.S. food supply. The data and trends presented in this report are invaluable for monitoring the potential of the food supply to meet nutritional needs; for examining relationships between food supplies, diet, and health; and for examining dietary trends of Americans. Additionally, food supply nutrient estimates reflect Federal enrichment and fortification standards and technological advances in the food industry and contribute to the Federal dietary guidance system. As such, these data are of interest to agricultural policymakers, economists, nutrition researchers, and nutrition and public health educators.

Data are provided for food energy and the energy-yielding nutrients—protein, carbohydrate, and fat (total, saturated, monounsaturated, polyunsaturated, and 19 individual fatty acids); cholesterol; dietary fiber; 10 vitamins; and 9 minerals. New to this report are vitamin A reported as retinol activity equivalents (m RAE) and folate reported as dietary folate equivalents (DFE). Included are estimates of quantities of food energy and nutrients per capita per day for the years 1909 through 2000. Estimates of percentage contributions of nutrients by major food groups and quantities of food available for consumption are provided for selected years for each of the nutrients and dietary components included in this report except for the 19 individual fatty acids.

In 2000, food energy levels were at 3,900 kilocalories, the highest level in the series. This level reflects higher levels of macronutrients, principally fat, in 2000 than in 1909. Cholesterol levels were lower in 2000 than in 1909, reflecting the decreased use of animal fat but mostly the decline in egg use. The level of carbohydrate over the series generally decreased until the early 1980s due to the decreased use of grains. Since that time, the level has increased. This reflects the trend toward increased consumption of grain products and sugars and sweeteners in more recent years.

Levels for most vitamins and minerals were higher in 2000 than in 1909. Higher levels of thiamin, riboflavin, niacin, and iron reflect Federal enrichment standards and the greater use of enriched grain products. The higher folate level in 2000 reflects folate fortification of grain products beginning in 1998. The level of vitamin A was higher in 2000 than in 1909, but this level fluctuated over the series depending on the mix of animal and plant foods in the food supply, as well as that available due to fortification of certain foods with vitamin A. The higher carotene level is linked to the increased use of vegetables, such as broccoli and carrots. The higher vitamin C level in 2000 was due to increased fruit availability, especially citrus fruits since the early 1900s. The higher vitamin E level in 2000 reflects the greater use of vegetable fats and oils and is associated with increases of polyunsaturated fatty acids. Higher calcium and phosphorus levels in 2000 reflect the increased consumption of lowfat milk, cheese, yogurt, and other dairy products, such as dairy desserts. The availability of both copper and selenium were higher in 1909 than in 2000. Higher sodium levels indicate the availability of more processed foods, such as cheese and canned vegetables.

Levels for vitamin B_{12} and potassium were lower in 2000 than in 1909, but over the series, met or exceeded current recommendations for a healthy diet on a national basis; the level of dietary fiber was also lower in 2000 than in 1909. The lower level of vitamin B_{12} in 2000 was due to the decreased consumption of eggs and organ meats; whereas, the lower level of potassium reflects lower consumption of plant foods, fresh potatoes, in particular. The lower level of dietary fiber in 2000 was attributable to decreased consumption of grains, fresh vegetables (mainly potatoes), and non-citrus fresh fruits since 1909.

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Nutrient Content of the U.S. Food Supply, 1909-2000

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NUTRIENT CONTENT OF THE U.S. FOOD SUPPLY, 1909-2000

INTRODUCTION

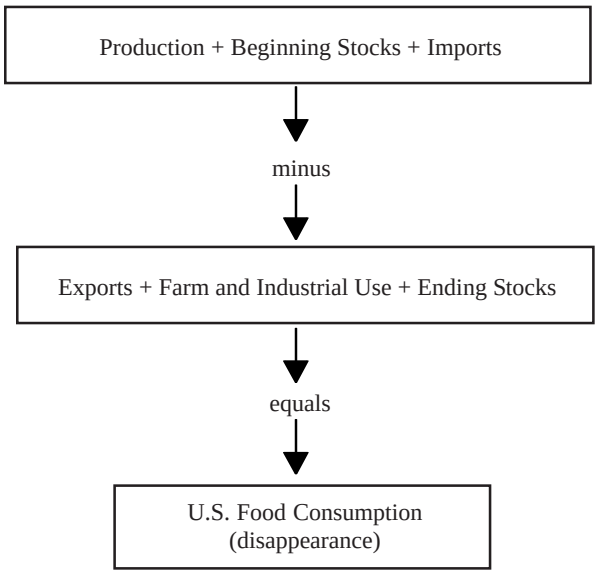
The Nutrient Content of the U.S. Food Supply is a historical data series, beginning with 1909, on the amounts of nutrients per capita per day in food available for consumption.[1] Per capita estimates are made for food energy and the energy-yielding nutrients—protein, carbohydrate, and fat (total, saturated, monounsaturated, polyunsaturated, and individual fatty acids); cholesterol; dietary fiber; 10 vitamins; and 9 minerals. Because the conceptual basis for measuring foods has remained the same since its inception, trend comparisons can be made of foods and their nutrients over the years.

Food supply nutrients were first estimated in the early years of World War II (WWII) to assess the nutritive value of the food supply for civilian use in the United States and to provide a basis for international comparisons with the food supplies of our allies. Since then, these estimates have been updated periodically (U.S. Department of Agriculture [USDA], 1949, 1988; Gerrior & Zizza, 1994; Gerrior & Bente, 2001a; 2002) to reflect incorporation of more recent food composition data, the release of updated per capita commodity values, advances in technology, and changes in fortification policy and marketing practices. As in the early years, per capita nutrient estimates are used to assess the nutritional value and adequacy of the food supply to meet the nutritional needs of Americans. However, the purpose of these data goes beyond assessing the food supply for sufficient nutrients to prevent the nutrient-deficiency diseases of the 1940s and 1950s. Currently, food supply nutrients are closely linked to food and nutrition policy, with prominence in areas related to nutrition monitoring, Federal dietary guidance, fortification policy, and food marketing strategies.

Food supply per capita nutrient estimates have historically played a key role in nutrition monitoring activities. The estimates are needed to monitor the potential of the food supply to meet the nutritional needs of the U.S. population, as well as to examine historical trends and to evaluate changes in the American diet. These estimates provide unique and essential information on the amount of food and nutrients available for human consumption in the United States.

[1]U.S. food consumption is based on records of supply and utilization of commodity flows from production to end uses. Data on the amount of food available for consumption are obtained from USDA's Economic Research Service (fig. 1).

Figure 1. Estimating U.S. food consumption



Source: Putnam & Allshouse (1999).

PURPOSE

Food supply per capita nutrient values are important dietary indicators because they measure the capacity of the food supply to satisfy the nutritional needs of the U.S. population. They also help identify sources of nutrients and food components in the food supply and thus may be useful to nutrition policymakers, educators and researchers, and to consumers concerned about their health. However, these values represent the amount of nutrients in foods that disappear into the marketing system and are neither a direct measure of actual nutrient consumption nor are they based on the quantity of food actually ingested. As such, these values typically overstate actual nutrient consumption because commodity measures do not account for edible food losses, resulting from trimming, cooking, plate waste, and spoilage. Furthermore, these nutrient values represent averages for the entire population and do not account for unequal distribution of food, specific dietary needs, or dietary selection by individuals. With these limitations, food supply nutrients are more appropriate as indicators of trends of nutrient availability over time on a per capita or national basis than as absolute levels of intake by individual Americans.

In support of Federal dietary guidance and nutrition monitoring activities, food supply nutrient data are important to agriculture and nutrition policymakers when nutrient goals for Americans are translated into goals for food production and supply levels. Nutrient goals have historically been based on the Recommended Dietary Allowances (RDA) (National Academy of Sciences, 1989) and were specific for gender-age groups. During this time, a nutritionally adequate food supply was linked to providing sufficient energy, macronutrients, and micronutrients to meet the nutritional needs of the U.S. population.

More recently, the emphasis has shifted towards the role of these nutrients in maintaining health and decreasing risk for chronic diseases, and with the release of the Dietary Reference Intakes (DRI), some of the nutrient goals have been reassessed (Institute of Medicine [IOM], 1997, 1998, 2000a, 2000b, 2001, 2002*).* To ensure that sufficient nutrients are available to the entire population to meet these recommendations for health, the levels of most nutrients available in the U.S. food supply must actually exceed recommended intakes. This helps adjust for the edible and nonedible food losses from agricultural production to the consumer's table not captured in food supply estimates.

When discussing food supply nutrients on a per capita basis, the use of the RDAs (or other reference intakes) does not work very well. This is because it is unreasonable to assume equitable distribution of nutrients among the population subgroups or among individuals in the population. In the past, the most commonly used approach was the simple comparison of per capita supply of a nutrient with its RDA, with or without a weight adjustment for demographics. This use is inappropriate with the DRIs. Instead, the EAR will be used as the appropriate DRI to assess adequacy (IOM, 2000a; Gerrior & Bente, 2001b) of intakes of population groups or looking at per capita nutrient availability. For more information on the DRIs, see box on pp. 4 and 5.

Also, in support of Federal dietary guidance, this report for the first time calculates food supply Pyramid serving estimates for each of the major Pyramid food groups and sub-groups. These estimates, from 1970-2000, provide information about the availability of foods in the food supply in terms of the Food Guide Pyramid and expand the usefulness of the food supply series as it allows researchers and policymakers to gauge the availability of food in terms of current dietary guidance and America's progress in following the *Dietary Guidelines for Americans* (USDA & DHHS, 2000). Food supply nutrients reflect developments in the marketing system because of such factors as demographic and population shifts, changes in consumer life-styles, economic conditions, and food and nutrition policy and programs (Manchester, 1992; Blisard, Lin, Cromartie, & Ballenger, 2002). For example, more disposable income but less time to buy food, prepare it, and eat it in many American households has made convenience one key to successful food production in the marketplace. Health concerns have also become increasingly influential in food choices, particularly over the last three decades.

Food supply nutrient estimates reflect the food industry's response to these health concerns and to Federal dietary guidance. Many of the production techniques and marketing changes made by the manufacturing food industry are responsive to and reflective of dietary recommendations to lower or moderate intake of fat, saturated fat, and cholesterol. Also, food retailers are responding to consumers' demands for convenience and healthful foods by providing a greater variety of food products in a wider variety of food venues (Davis & Stewart, 2002). By responding to consumers' desires for a convenient, healthy, high quality, and varied food supply, as well as to the directives of Federal dietary guidance, the food industry has reshaped many aspects of the food supply.

DIETARY REFERENCE INTAKES

Unlike the single 1989 Recommended Dietary Allowances (RDAs) publication (National Academy of Sciences, 1989), the DRIs are a compendium of eight reference values for dietary nutrient intakes for the healthy U.S. population published by the Institute of Medicine (IOM) of the National Academy of Sciences. The completed series are (1) vitamin D and minerals related to bone health (IOM, 1997), (2) folate and other B vitamins (IOM, 1998), (3) antioxidants and related compounds (IOM, 2000b), (4) vitamins A and K, chromium, copper, iodine, iron, manganese, molybdenum, zinc, arsenic, boron, nickel, silicon, and vanadium (IOM, 2001), (5) applications in dietary assessment (IOM, 2000a), (6) macronutrients (IOM, 2002), (7) applications in dietary planning (IOM, 2003) and (8) electrolytes (sodium, potassium, chloride, and sulfate) and water (IOM, 2004).

The DRIs represent the approach adopted by the IOM's Food and Nutrition Board to provide reference estimates of nutrient intakes to assess nutrient intakes of individuals and to assess nutrient intakes of groups. These values replace and expand on the RDAs, established as nutrient standards for the past 50 years. DRIs are also used for planning and assessing diets for healthy people. The DRIs provide information on the function of each nutrient, the factors that determine the requirements for each nutrient, and the relationship of each nutrient to disease risk. Recommended values are provided for each group—from birth through childhood, sexual maturity, mid-life, and old age—as well as for pregnancy and lactation. The DRIs provide four nutrient values. They include the Recommended Dietary Allowances (RDAs) as goals for intake by individuals, as well as three new types of reference values: the Estimated Average Requirement, the Adequate Intake, and the Tolerable Upper Intake Level.

Recommended Dietary Allowance (RDA)

The average daily intake level that is sufficient to meet the nutrient requirement of 97 to 98 percent of healthy individuals in a group. It is used to set goals for nutrient intakes for individuals.

Estimated Average Requirement (EAR)

A nutrient intake value that is estimated to meet the requirements of half the healthy individuals in a group. It is used to assess adequacy of intakes of population groups. For example, it would be used to assess the nutrient status of individuals enrolled in a large dietary survey.

Adequate Intake (AI)

A recommended daily intake based on observed or experimentally determined approximations of nutrient intake by a group (or groups) of healthy people. It is used when the RDA cannot be determined. AIs are established for nutrients such as calcium, vitamin D, and fluoride.

Tolerable Upper Level (UL)

The highest level of daily nutrient intake that is likely to pose no risks of adverse health effects to almost all individuals in the general population.

Dietary Reference Intakes, Recommended Levels for Individual Intake for Selected Vitamins and Minerals

Life stage group	Vitamin A (RAE) (µg/d)[1]	Vitamin E (mg/d)	Vitamin C (mg/d)	Thiamin (mg/d)	Ribo-flavin (mg/d)	Niacin (mg/d)[2]	Vitamin B_6 (mg/d)	Folate (DFE) (µg/d)[3]	Vitamin B_{12} (µg/d)	Calcium (mg/d)[4]	Phos-phorus (mg/d)	Mag-nesium (mg/d)	Iron (mg/d)	Zinc (mg/d)	Copper (µg/d)	Selenium (µg/d)	Sodium (mg/d)	Potas-sium (mg/d)
Infants																		
0-6 mos										*210*							*120*	*400*
7-12 mos										*270*			6.9	2.5			*370*	*700*
Children																		
1-3 yr	210	5	13	0.4	0.4	5	0.4	120	0.7	*500*	380	65	3.0	2.5	260	17	*1000*	*3000*
4-8 yr	275	6	22	0.5	0.5	6	0.5	160	1.0	*800*	405	110	4.1	4.0	340	23	*1200*	*3800*
Males																		
9-13 yr	445	9	39	0.7	0.8	9	0.8	250	1.5	*1300*	1055	200	5.9	7.0	540	35	*1500*	*4500*
14-18 yr	630	12	63	1	1.1	12	1.1	330	2.0	*1300*	1055	340	7.7	8.5	685	45	*1500*	*4700*
19-30 yr	625	12	75	1	1.1	12	1.1	320	2.0	*1000*	580	330	6.0	9.4	700	45	*1500*	*4700*
31-50 yr	625	12	75	1	1.1	12	1.1	320	2.0	*1000*	580	350	6.0	9.4	700	45	*1500*	*4700*
51-70 yr	625	12	75	1	1.1	12	1.4	320	2.0	*1200*	580	350	6.0	9.4	700	45	*1300*	*4700*
> 70 yr	625	12	75	1	1.1	12	1.4	320	2.0	*1200*	580	350	6.0	9.4	700	45	*1200*	*4700*
Females																		
9-13 yr	420	9	39	0.7	0.8	9	0.8	250	1.5	*1300*	1055	200	5.7	7.0	540	35	*1500*	*4500*
14-18 yr	485	12	56	0.9	0.9	11	1.0	330	2.0	*1300*	1055	300	7.9	7.3	685	45	*1500*	*4700*
19-30 yr	500	12	60	0.9	0.9	11	1.1	320	2.0	*1000*	580	255	8.1	6.8	700	45	*1500*	*4700*
31-50 yr	500	12	60	0.9	0.9	11	1.1	320	2.0	*1000*	580	265	8.1	6.8	700	45	*1500*	*4700*
51-70 yr	500	12	60	0.9	0.9	11	1.3	320	2.0	*1200*	580	265	5.0	6.8	700	45	*1300*	*4700*
> 70 yr	500	12	60	0.9	0.9	11	1.3	320	2.0	*1200*	580	265	5.0	6.8	700	45	*1200*	*4700*
Pregnancy																		
≤ 18 yr	530	12	66	1.2	1.2	14	1.6	520	2.2	*1300*	1055	335	23.0	10.5	785	49	*1500*	*4700*
19-30 yr	550	12	70	1.2	1.2	14	1.6	520	2.2	*1000*	580	290	22.0	9.5	800	49	*1500*	*4700*
31-50 yr	550	12	70	1.2	1.2	14	1.6	520	2.2	*1000*	580	300	22.0	9.5	800	49	*1500*	*4700*
Lactation																		
≤ 18 yr	880	16	96	1.2	1.3	13	1.7	450	2.4	*1300*	1055	300	7.0	10.9	985	59	*1500*	*5100*
19-30 yr	900	16	100	1.2	1.3	13	1.7	450	2.4	*1000*	580	255	6.5	10.4	1000	59	*1500*	*5100*
31-50 yr	900	16	100	1.2	1.3	13	1.7	450	2.4	*1000*	580	265	6.5	10.4	1000	59	*1500*	*5100*

[1]As Retinol Activity Equivalents (RAE).
[2]As niacin equivalent. 1 mg of niacin = 60 mg of tryptophan.
[3]As dietary folate equivalents (DFE).
[4]EAR has not been established for calcium, sodium, or potassium. The Adequate Intake (AI) italicized is used.

Source: Institute of Medicine, Food and Nutrition Board, 1997, 1998, 2000, 2001.

Food supply nutrient data are useful in terms of evaluating the effects of technological and marketing changes on the food supply over time. Technological changes and improved marketing practices have increased the number and variety of foods available that meet consumers' demand for convenient and healthful foods (Thomas & Earl, 1994). Alteration of the food supply may consist of nutrients or dietary components being added or removed. The addition of nutrients to foods through enrichment and fortification has been an effective way to maintain and improve the overall nutritional quality of the U.S. food supply. Because the food supply series measures foods and nutrients over time, the effect of added nutrients for purposes of enrichment and fortification of basic food commodities can be gauged. For example, nutrient per capita estimates can be used to evaluate the need for and the effect of a fortification policy. Also, a fortification policy has the potential to control or decrease macronutrients and simultaneously increase micronutrients in the food supply by making specific foods more nutrient dense, without increasing calories or fat.

The U.S. food supply series continues to be the major source of U.S. dietary information with which international comparisons can be made. The methodologies used to estimate foods and nutrients available for consumption in the United States are similar to those used by the Food and Agriculture Organization of the United Nations for other countries. Both methodologies are based on the concept of food balance sheets, which include data on the supply and utilization of food. Thus, these data can be used to compare the U.S. diet with diets of other countries.

Food supply per capita nutrients may be used by researchers to study the relationships between food and nutrient availability and nutrient-disease associations. Epidemiological studies examining these relationships are possible because the methodology used to estimate the per capita values across countries and over time is consistent (Kelly, Becker, & Helsing, 1991; Kris-Etherton et al., 2000; Sasaki & Kesteloot, 1992; Simopoulos, 1999; Stephen & Wald, 1990; World Health Organization, 2003). Researchers are able to examine diet and disease relationships on a comparative basis, on a time-series basis, or both.

METHODOLOGY

The nutrient content of the food supply is calculated by using data on the amount of food available for consumption from USDA's Economic Research Service (ERS) and information on the nutrient composition of foods from USDA's Agricultural Research Service (ARS). Estimates of per capita consumption for each commodity (in pounds per year) at retail level are multiplied by the amount of food energy and each of 27 nutrients and dietary components in the raw edible portion of the food. Results for each nutrient from all foods are totaled and converted to amount per capita per day.

Food Consumption Estimates

Annually, ERS calculates the amount of food available in the United States[2] for consumption on a per capita basis (Putnam & Allshouse, 1999). The U.S. food supply series, which measures national consumption of about 400 basic commodities, is based on records of commodity flows from production to end uses (fig.1). This flow involves the development of supply and utilization balance sheets for each major commodity from which foods are produced. Total available supply is the sum of production, beginning inventories, and imports. These three components are either directly measurable or are estimated by government agencies. The food available for human use reflects what is left from available supply after deducting exports, industrial uses, farm inputs, and end-of-year inventories.

Human food use is a residual component after subtracting other uses from the available total supply. The availability of food for human use represents disappearance of food into the marketing system, and it is often referred to as food disappearance. Food disappearance measures food supplies for consumption through all outlets—at home and away from home. Per capita food use, or consumption, is calculated by dividing the total annual food disappearance by the total U.S. population, including the Armed Forces overseas on July 1.

Estimates of consumption (disappearance) are prepared at two levels for many commodities: the primary-weight and the retail-weight equivalent. ERS converts food consumption from primary-weight to a retail-weight equivalent using conversion factors that allow for additional processing, trimming, shrinkage, or loss in the distribution system.

Subsequent losses that occur after the retail level, such as in preparation and cooking in the home or food-service establishments, are not considered. The basic measurement is at the primary distribution level, which is dictated for each commodity by the structure of the marketing system and the availability of data. For some commodities, such as eggs and produce, measurement is at the farm gate and includes both edible and nonedible components, such as egg shells and apple cores. For most processed commodities, measurement is at the processing or manufacturing plant. Once the primary level of distribution has been selected, quantities of all other components in the balance sheet for that commodity are converted to the primary-weight basis by using appropriate conversion factors. For example, because the primary distribution level for red meat is the slaughter plant, all quantities are converted to carcass weight (Putnam & Allshouse, 1999).

Over the years, changes in the use of certain foods and in the availability of data have made it necessary to measure food use at different points in the marketing system. For example, before 1960, potato use was reported only on a fresh basis, which included processed forms converted to their fresh-equivalent weight. However, because of increased use of processed

[2]ERS provides information for most foods. The National Marine Fisheries Service of the U.S. Department of Commerce provides fish and shellfish data used in the food supply series.

potato products since 1960, potato consumption is now reported on both bases: fresh (farm-weight) and processed (retail-weight). For example, consumption of processed potatoes in canned, frozen, dehydrated, or chip form is measured by using a conversion factor to report the farm-weight equivalent of fresh potatoes used to produce these foods. The nutrient values are adjusted according to their various forms to maintain comparability throughout the series.

Because of data limitations, some commodities, such as salad and cooking oils and fish, are reported as separate categories. However, because individual foods within these aggregate categories can vary greatly in their nutrient composition, both unpublished and published data for specific foods were used to reflect more accurately specific nutrients within each category. For example, nutrient estimates for salad and cooking oils were estimated using USDA production and import and domestic consumption data for individual oils (Holz, personal communication, 2002; USDA, 2001). Similarly, data from the National Marine Fisheries Service (NMFS) were used to estimate nutrients for specific categories of fish—fresh/frozen fish, canned and cured finfish, and canned shellfish—based on their lipid content.

Beginning in the 1960s, consumption of produce from home gardens has been measured by using data from USDA's decennial food consumption surveys as benchmarks. Estimates for years between the decennial surveys were interpolated from changes in proportions of households with gardens. These estimates were based on data from National Gardening Surveys of the National Gardening Association. ERS provided data on home garden produce prior to the 1960s.

Food Composition Data

Food composition data used to estimate the nutrients available in the food supply were obtained from the Primary Nutrient Data Set (PDS) containing about 3,000 foods and their nutrient profiles and USDA's Nutrient Database for Standard References 11, 14, 15, and 16 (USDA, 1996, 2001, 2002, 2003) developed by the ARS's Nutrient Data Laboratory (NDL). In addition, food specialists in NDL developed nutrient profiles for unique items for use with food supply calculations. Food values are based primarily on laboratory analysis. If laboratory values are not available, values are imputed from data for other forms of the same food or from data for similar foods.

Nutrients added to foods commercially through enrichment and fortification are estimated. These data may be limited because fortification data are included only when reliable fortification data sources are available. Included are iron, thiamin, riboflavin, niacin, and folate added to flour and cereal products;[3] vitamin A added to margarine, milk, milk

[3]Beginning January 1, 1998, all enriched grain foods were fortified with folic acid. Folate estimates for flours for 1909-97 do not reflect this fortification policy prior to the 1998 ruling.

extenders, and breakfast cereals; vitamin B_6 added to breakfast cereals, meal replacements, and infant formulas; vitamin B_{12} added to breakfast cereals; vitamin C added to fruit juices and drinks, flavored beverages, dessert powders, milk extenders, and breakfast cereals; and zinc added to breakfast cereals.[4] (See Appendix A.)

While food supply estimates account for fortification and enrichment, these estimates may not include the total supply of nutrients. For example, quantities of phosphorus contained in carbonated soft drinks are not included. The nutritive content of baking powder, baking soda, yeast or dough conditioners, vitamin and mineral preparation, and calories from alcoholic beverages are excluded.

Estimates of the nutrient content of the food supply exclude nutrients from the inedible parts of foods, such as bones, rinds, and seeds, but include nutrients from parts of foods that are edible but not always eaten, such as the separable fat on meat. With the exception of canned fruits and vegetables for which nutrient data account for losses in processing, food supply estimates include nutrients that may be lost in processing, marketing, or cooking. (For information about estimating and addressing food loss from the U.S. food supply, see Kantor et al., 1997.)

All of the nutrient values per capita dating back to 1909 are recalculated with the most up-to-date food composition values available. Hence any changes in these values because of improvements in laboratory analysis and sampling practices are accounted for over the entire series. Data on selenium used in this report, however, may not truly reflect the selenium content of food supply commodities over the series, especially for the earlier years because data on selenium reflect the nutrient content of today's food supply. The selenium content of plants, particularly cereal grains, is strongly influenced by the biologically available selenium in the soil in which plants grow, a factor difficult to account for over the series.

Also, nutrient values per capita reflect changes over the years in the actual foods because of technological developments and marketing practices. For example, fat content of poultry and pork has varied over the years because of changes in breeding and feeding practices by the poultry industry and the production of leaner hogs. Also, changes in the marketing practices of beef (as well as pork), such as the closer trimming of fat from one-half inch to one-eighth inch in certain cuts, contribute to changes in nutrient values over the series. Otherwise, for most foods in the food supply, nutrient composition has not changed dramatically over the 20th century.

[4]Calcium is not included as a fortificant. While some calcium fortification is added to ready-to-eat breakfast cereals, the variable amount is such that an appropriate estimate cannot be made.

Food Supply Pyramid Servings Estimates

The Pyramid servings database used in this report was based on a multistage process designed by ERS to convert aggregate food supply estimates into food servings comparable to those specified in the Food Guide Pyramid (FGP) (USDA, 1996; Kantor et al., 1998). Prior to this conversion, food supply data were adjusted for spoilage and other waste by subtracting food loss from the final marketing weight. Each Pyramid serving estimate was based on a single serving weight consistent with a sample serving identified in the FGP and defined for each food supply commodity. Estimates were calculated for the daily availability of a group or subgroup of a commodity on a per capita basis. Pyramid serving data are only available from 1970-2000 due to limitations in methodology. Factors used to estimate Pyramid servings are based on 1996 data and should not be applied to food quantity estimates prior to 1970 due to changes in the U.S. marketing practices and food packaging.

Food Supply Methodologies—Commodity Specific

The databases used to calculate food supply nutrient estimates are continually evolving. New sources of information are applied to food supply methodologies to reflect market conditions and technological advances better. Selected methodologies are discussed to provide information pertinent to the update of nutrient estimates for 1909-2000.

Meat, Poultry, and Fish

Red Meat

The red meat industry has altered a number of marketing practices in the past three decades, with ramifications on the U.S. food supply series. Specifically, feeding practices, genetic and animal management practices, meat handling, and merchandising practices have been modified to improve production efficiency and to respond to consumers' health concerns about dietary fat and red meat.

To accurately account for these modifications, conversion factors are applied to red meat data over the series. These factors are more reflective of the cattle industry and more representative of the nutrient contributions, in particular for fat-related nutrients, from red meat to the food supply.

Beef. Beef quantity and nutrient estimates are calculated using two sets of conversion factors. These factors are revised periodically to account for variations in quantity and yield of the product and in marketing practices (Nelson, Duewer, & Crawford, 1989; Savell, Harris, Cross, Hale, & Beasley, 1991; USDA, 1977). These conversion factors are based on changes in animal husbandry or technology, marketing practices related to fat and bone at the packer or retail level, or a combination thereof at a specific period over the series. One factor accounts for specifications related to closer fat trim by packers (carcass-to-wholesale), and the other adjusts for the closer trimming of fat and increased removal of

bone by retailers (carcass-to-retail). For beef, Yield Grade is a major consideration in the adjustment in animal composition because the lower the Yield Grade, the less fatty the animal carcass. Also, the current retail practice of external fat trim replaces the 1/2-inch trim of the 1970s, 1980s, and early 1990s with the 1/8-inch trim.

Pork. For pork, two conversion factors used for carcass-to-retail calculations have been adjusted downward for the series beginning in 1955 to reflect better the changing mix of lean and fat on the carcass and the smaller percentage of carcass available for fat cuts (Duewer, 1979; Duewer, Bost, & Futrell, 1991). These factors account for the separation of wholesale pork into lean and fat cuts during processing and exclude fat cuts from the total retail carcass weight. The factor for fat cuts is based on bellies' (primarily bacon) percentage yield from bone-in trimmed wholesale cuts (Gerrior, 1996). Since the late 1960s, this yield has decreased and currently is about one-half that of 1965.

Veal and Lamb. Fewer changes have occurred in the production and marketing of veal and lamb than of beef and pork. Since the early 1990s, many retailers have been trimming lamb products to a 1/8-inch trim and the nutrient values used in the nutrient database reflect the leaner cuts of more recent years. Also, carcass-to-retail conversion factors used for veal are consistent with current marketing practices.

Game. Prior to 1966, game estimates for deer, duck, and geese were provided by ERS or estimated from ERS data. Beginning with 1966, game estimates were based on game harvest data from the States or national sources and the types of game were reclassified into one of five categories: deer, big game (excluding deer), small game, upland game, and waterfowl. Carcass weights for deer and big, small, and upland game were calculated with data provided by the individual States or from the Wildlife Management Institute (2002). Carcass weights for duck and geese were calculated from data provided by the U.S. Fish and Wildlife Service (P. Padding, personal communication, 2001). Harvest data were totaled for a particular year and adjusted based on carcass weight. These estimates were divided by the Census population data to calculate per capita quantity and nutrient estimates. In 1999, upland game was dropped from the game classification due to its diminished harvest, resulting in four categories: deer, big game, small game, and waterfowl. As of 2000, game data will be updated every 5 years and between each 5-year period, data will be carried forward. These adjustments make the database more representative of the types of game consumed and their nutrient contributions to the food supply than previously reported.

Fish

Fish production data include fish caught by commercial fishing vessels, noncommercial sources, and aquaculture. Canned and cured fish are processed and counted separately from those that are caught for fresh and frozen distribution. Beginning in 1980, aquaculture began to play a major role in fish production (U.S. Department of Commerce, 1981). Aquaculture provided a significant portion of the fish in the U.S. fish supply, particularly salmon, trout, and catfish species in the later years of the series (U.S. Department of Commerce, 2002).

Estimates for some fish in the food supply are reported as broad categories that include a number of species based on lipid content. The categories include fatty fish, those containing more than 5-percent fat; lean fish, those containing 5 percent or less fat; and ground-dwelling fish. A nutrient composite is updated periodically for each category of fish to be more reflective of what is actually consumed.

Dairy

Since the early 1900s, the butterfat content of whole milk declined from 3.80 percent to 3.25 percent. Demand by the consumer for lower levels of butterfat in milk products, Federal standards on lower minimum levels of fat in milk products, and changes in types of cows bred for milking contributed to this decline. In fact, the higher fat milk of the 1950s is almost entirely gone from the market. Revised butterfat data are applied to per capita consumption estimates for fluid milks [whole, lowfat (2%, 1%), and skim milk] to separate into their respective fat and residual components. This results in larger quantities of the residual component and smaller quantities of the fat component for these products over the series.

Fruits and Vegetables

Fresh Fruits and Vegetables

In the early 1980s, USDA stopped reporting per capita values for many commercially produced fresh and processed fruits and vegetables because national production data were no longer available. To continue monitoring as many of the fresh fruit and vegetable sectors as possible, ERS commodity specialists estimated national production for a number of specific fruits and vegetables by using data from States that continued to collect production information (Putnam & Allshouse, 1999). As a result, many of the fresh fruit and vegetable commodities have been maintained and some new ones have been added. Since 1985, per capita values for romaine lettuce, lima beans, cranberries (fresh and processed), kiwi fruit, mangoes, and papaya have been added to the ERS commodity list. Additionally, in 2000, fresh pumpkin, several leafy greens (collards, mustard and turnip greens, and kale), and okra were included in ERS commodity estimates (USDA, 2003). The nutrient contributions from these items are included in this report for the first time.

Fruit Juices

Beginning with 1991 per capita estimates, ERS no longer distinguished between the final product forms of juices, such as frozen or canned orange and grapefruit juices. Since then, per capita juice has been reported as merely juice, gallons per capita. For the years 1991 through 1998, a method using ERS supply data was developed to distinguish between the frozen and canned forms of juices in the food supply to ensure consistency of data and to reflect nutrient contributions from these commodities (USDA, 1992, 1997). Beginning in 1999, frozen and canned forms of orange and grapefruit juice were no longer distinguished due to the lack of canned data information for these juices, and ERS per capita estimates for orange and grapefruit juices were assumed to be frozen/concentrate.

Breakfast Cereals

The reporting of per capita consumption of breakfast cereals has changed over the food supply series. Cereal quantities, based on type of cereal, have been adjusted and nutrient composites developed to reflect best the nutrient content of the cereal grains as reported by ERS. From 1909 to 1965, ERS reported per capita estimates for wheat and corn cereals as individual items but did not account for cooked and ready-to-eat cereal quantities separately until 1966. At that time, ERS reported wheat and corn cereals separately as to form; nutrient data from 1966 through 2000 reflect this adjustment. In 1999, an adjustment was made to ERS quantity data for wheat flour, corn meal, rice, and oat grains to ensure that individual grain contributions from ready-to-eat cereals and cooked cereals were not double-counted in the food supply series. A percent share of each cereal grain (wheat, corn, rice, or oats) from breakfast cereals was applied to the total ERS quantity for an individual grain (wheat, corn, rice, or oats) and a new percent share calculated for each of the flour commodities. Percent share contribution of breakfast cereal grains was determined from Census of Manufactures (U.S. Department of Commerce, 1997a) Breakfast Cereal Manufacturing data for specific years. Quantity grain data in this report may be less than in previous years because of this adjustment.

Ready-to-Eat Cereals

From 1966 to 1973, the percentage contribution of each cereal (wheat or corn) was determined and applied to the per capita estimates for the total ready-to-eat cereal and subsequently linked to nutrient data specific to these two cereals. Beginning in 1974, ERS quantity data on ready-to-eat cereals were directly linked to a composite reflective of a number of cereals, not just wheat and corn. This composite includes wheat, corn, oat, rice, and mixed grain. The nutrient contribution from each of these cereals in the composite is based on cereal production data from the Census of Manufactures and is updated every 5 years (U.S. Department of Commerce, 1997a).

Cooked Cereals

Beginning in 1966, per capita estimates of cooked cereals were reported by ERS as a total. Nutrient estimates reflective of this total—wheat, oat, mixed grain, and instant cereals—are based on cereal production data from the Census of Manufactures and are updated every 5 years(U.S. Department of Commerce Census, 1997a).

Fats and Oils

The methods for calculating per capita estimates of fats and oils have remained essentially unchanged. However, nutrient estimates for individual fatty acids were expanded in 1997 and food supply nutrients from fatty acids calculated back to 1980. The individual fatty acids are divided into three categories: (1) saturated fatty acids concentrated in dairy products; red meat and poultry; and palm, palm kernel, and coconut oils; (2) mono-unsaturated fatty acids found in olive, canola, and peanut oils; almonds; and avocados; and (3) polyunsaturated fatty acids found in salad and cooking oils and fish. Polyunsaturated fatty acids have two classes: omega-6 and omega-3. Omega-6 fatty acids are found in salad and cooking oils, and fish is the primary source of omega-3 fatty acids.

Food Fortification

The estimation of the nutritive value of the U.S. food supply requires information on the extent of enrichment and fortification of foods. CNPP routinely consults with members of the food industry, trade associations, fortification policy/food regulatory staff at the Food and Drug Administration (FDA), academic experts in food science and nutraceuticals, and chemical suppliers of added nutrient formulations. This information is used to establish or verify fortification levels of several food supply commodities, such as white flour, breakfast cereals, rice, pasta, corn products, and margarine. For other food commodities, such as fruit drinks and juices, individual dairy products, and meal replacements, adequate information does not exist to estimate added nutrients or fortification. Currently, the U.S. food supply series maintains two types of fortification files: historical files and dynamic or active files.

Historical files consider fortification events from the 1940s to the 1970s for most foods with added nutrients with the exception of fruit drinks, dairy products, and miscellaneous foods. Dynamic or active fortification files include food commodities such as rice, corn meal/grits, ready-to-eat breakfast cereals, white flour, semolina, and margarine from the 1970s. These files directly link commodity quantity to nutrient data for a specific year based on enrichment/fortification policy for that year. (For more information on food fortification, see Appendix A).

TRENDS IN AVAILABILITY OF FOODS AND FOOD ENERGY AND NUTRIENT LEVELS, 1909-2000

Quantities of Food Available From Major Food Groups

During the 20th century, substantial changes occurred in the food available for consumption in the U.S. food supply. Many of these changes are linked to advances in food production and technology, Federal standards for enrichment and fortification, the Federal dietary guidance system, and changing consumer preferences creating demand for nutritionally improved foods.

Consumption from the meat, poultry, and fish group reached 241 pounds per capita in 2000. Poultry increased more than fivefold—from 17 to 93 pounds per capita between 1909 and 2000. In fact, since the early 1970s when the poultry industry began marketing a variety of processed poultry products, such as chicken breasts, thighs, and tenders, and luncheon meats, poultry use has almost doubled: 48 pounds per capita in 1970 compared with 93 pounds per capita in 2000. Fish use has increased somewhat, from 11 pounds per capita in 1909 to 16 pounds per capita in 2000. Red meat continues to be a major part of our diet, but its use is down by about 10 percent from 148 pounds per capita in 1909 to 133 pounds per capita in 2000. Consumption of red meat reached a high of 168 pounds per capita in 1944, primarily decreased through the early 1970s, and increased again to 156 pounds in 1976

when beef supplies were at record levels due to the liquidation of the Nation's beef herd. Consumer concerns about cholesterol and saturated fat, inconsistent quality, and lack of convenience in beef preparation contribute to this negative trend. Egg use has generally declined over the series. It remained stable at about 30 pounds per capita from 1989 to 1997 but has increased since then to 32 pounds per capita in 2000 (fig. 2).

Legumes, nuts, and soy consumption generally increased over the series from 17 pounds in 1909 to 21 pounds per capita in 2000 (fig. 3). In 2000, legumes and nuts each provided similar quantities at 9 pounds per capita.

Figure 2. U.S. food supply: Meat, poultry, fish, and eggs, per capita per year, 1909-2000

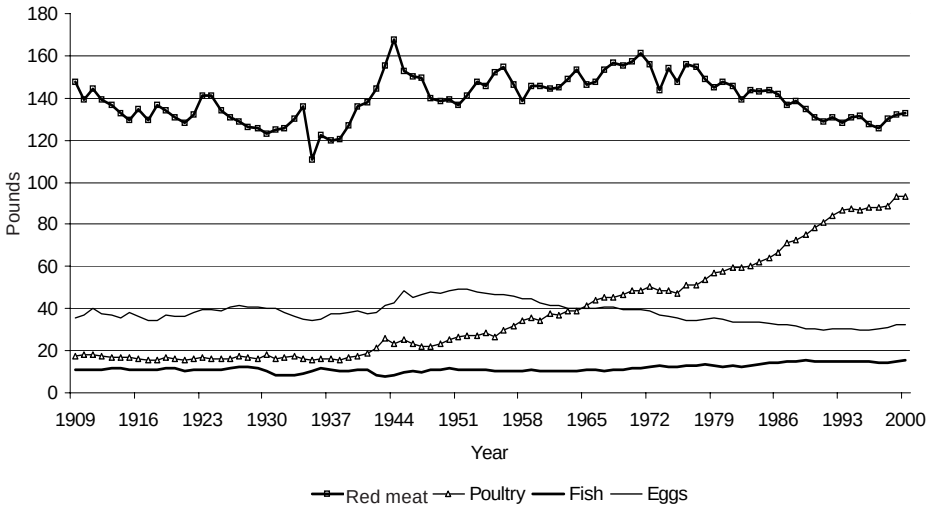
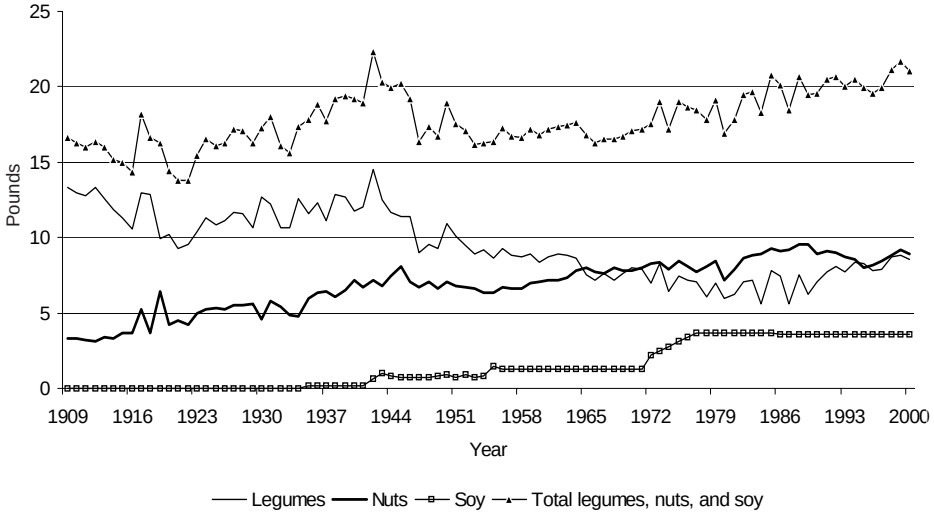


Figure 3. U.S. food supply: Legumes, nuts, and soy products, per capita per year, 1909-2000



Demand for whole milk declined from 219 pounds per capita in 1970 to 70 pounds per capita in 2000; whereas, demand for lowfat and skim milks (fat-free or nonfat) increased substantially from 50 pounds per capita to 127 pounds per capita for the same years. Also, demand for yogurt increased from 0.8 pounds per capita to 5 pounds per capita during that time. Despite this trend toward lower fat milks, the per capita consumption of fluid cream products has increased since the mid-1970s—from 5.0 pounds per capita in 1975 to 10 pounds per capita in 2000. Also, because of the increase in ethnic diversity, the demand for hard cheeses used in pizza-making, cheeses used in prepared foods, and the greater variety in processed cheeses, cheese consumption has increased from 4 pounds per capita in 1909 to 32 pounds per capita in 2000 (fig. 4).

The use of grain products has increased since the lowest levels, around 140 pounds per capita, were reached in the early 1970s. However, in 2000, use was considerably lower (200 pounds per capita) than the 300 pounds per capita level in 1909. In contrast, caloric sweeteners have increased in use and are at record-high levels. Shifts within the caloric sweeteners group have also occurred. Over the series, refined sugar has been largely replaced by high-fructose corn syrup, which was at an all-time high in 1999 at 81 pounds per capita but dropped slightly in 2000 to 80 pounds per capita (fig. 5).

Vegetable and vegetable juice use rose primarily since the 1960s, and in 1999 was at the highest level since the 1960s at 296 pounds per capita. However, this level dropped by 4 pounds in 2000 to 292 pounds per capita, much less than the 1909 level of 414 pounds per capita. The major reason for an overall decrease in the use of fresh vegetables has been the marked decline—more than one-half—in the use of fresh white potatoes. In 1909, fresh white potatoes provided 188 pounds per capita; in 2000, this value was at 83 pounds per capita. Also, tomatoes decreased from 46 pounds per capita in 1909 to 43 pounds per capita in 2000. Overall vegetable-use decline has been slightly offset in recent years by increases in per capita consumption of some fresh commercial vegetables, such as bell peppers and onions. Also, dark-green/deep-yellow vegetables increased from 35 pounds per capita in 1909 to 41 pounds per capita in 2000 (fig. 6).

Fruit and fruit juice use has increased from 173 pounds per capita in 1909 to 214 pounds per capita in 2000. During this time, citrus fruits and juices were major contributors to this increase. Since the mid-1970s, the use of non-citrus fruits and melons has generally increased. Overall, increased fruit availability is related to increases in juice consumption and the introduction of a greater variety of fruits, including exotic fruits, into the food supply (fig. 7).

Total fats and oils have increased from 41 pounds per capita in 1909 to an all-time high of 79 pounds per capita in 2000 (fig. 8). A shift has occurred from the use of animal sources of fat to vegetable sources because of a substantial increase in the use of vegetable fats, such as margarine, shortening, and oils (fig. 9).

Figure 4. U.S. food supply: Dairy products, per capita per year, 1909-2000

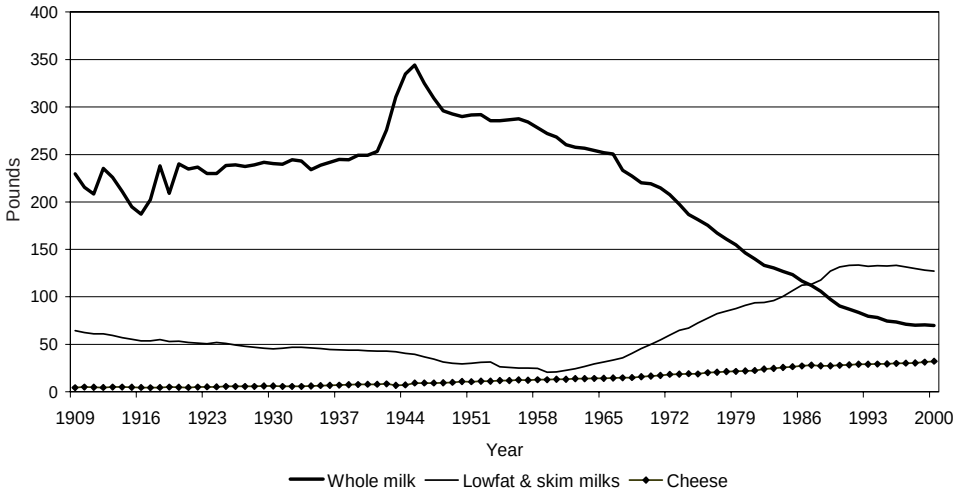


Figure 5. U.S. food supply: Grains and sugars and sweeteners, per capita per year, 1909-2000

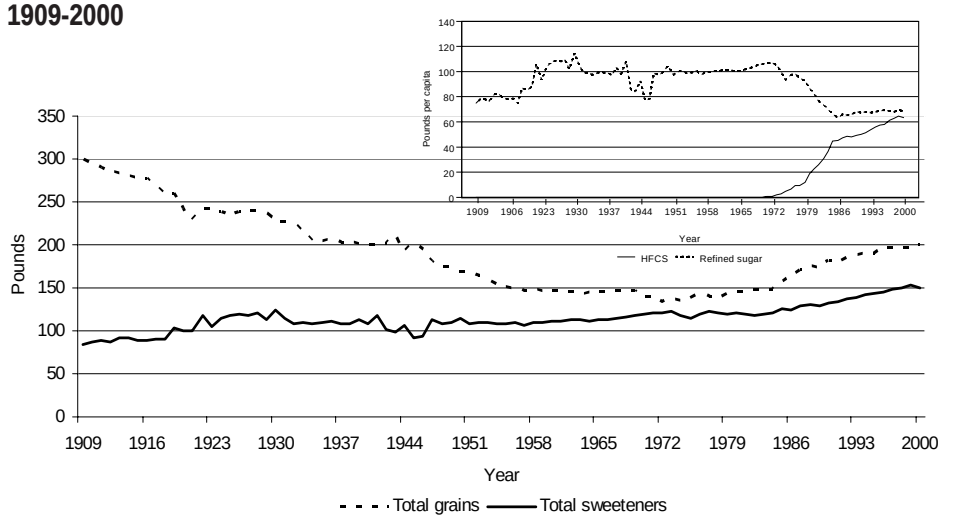


Figure 6. U.S. food supply: Vegetables, per capita per year, 1909-2000

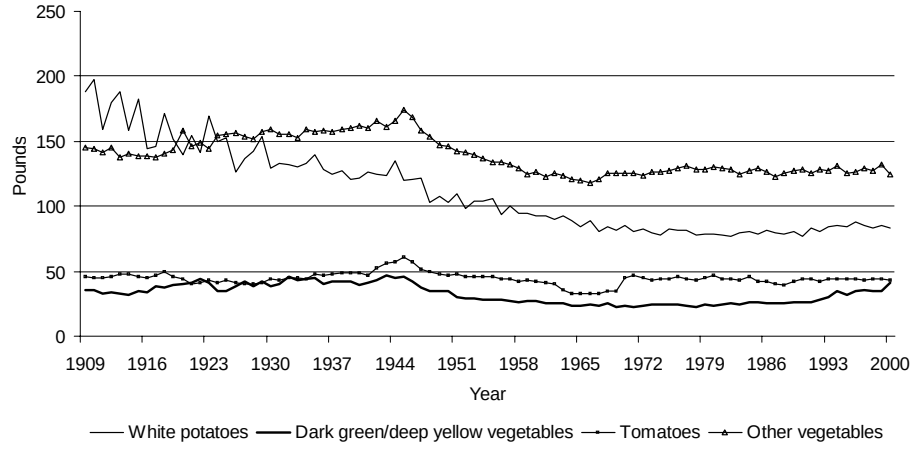


Figure 7. U.S. food supply: Fruits, per capita per year, 1909-2000

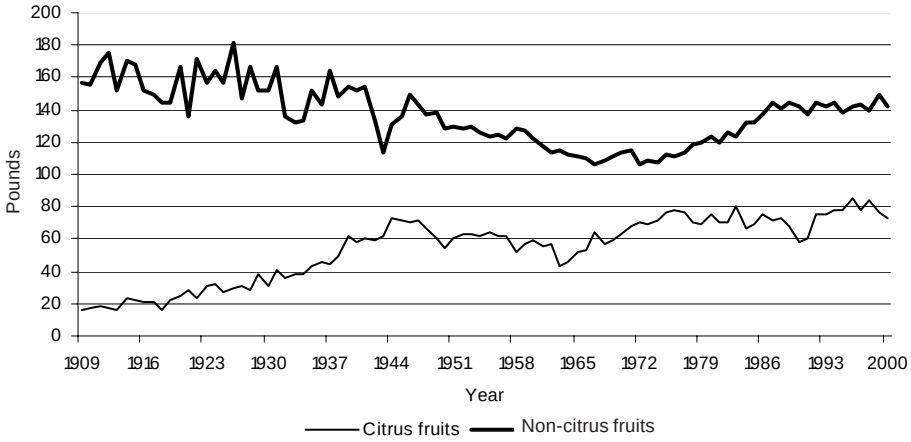


Figure 8. U.S. food supply: Fats and oils, per capita per year, 1909-2000

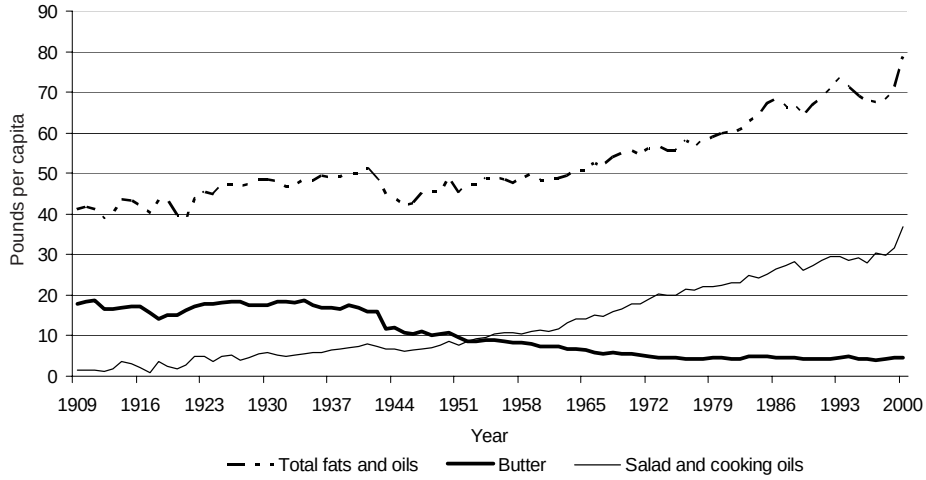
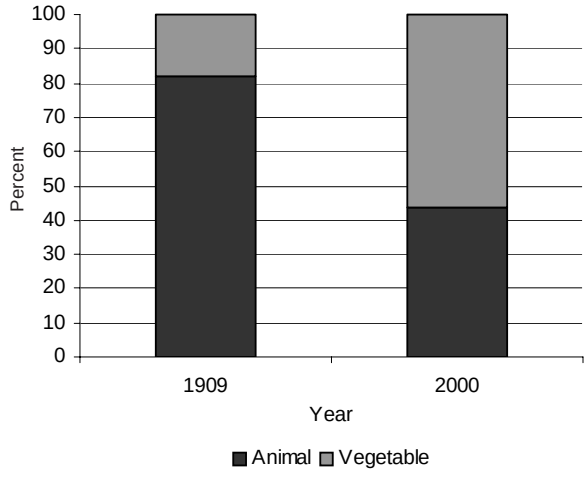


Figure 9. Types of fat in the U.S. food supply



Miscellaneous foods including spices generally increased from 10 pounds per capita in 1909 to 13 pounds per capita in 2000. Spices were not added to the food supply until 1918. The use of spices increased more than fivefold from one-half pound per capita in 1918 to 2.59 pounds per capita in 2000 (data not shown).

Food Energy, Macronutrients, and Dietary Components

Food energy or kilocalories is the energy released from the metabolism of foods and allows the production and maintenance of body tissue cells. Over the period covered in this report, per capita energy levels have been as low as 3,100 kilocalories (kcal) and as high as 3,900 kcal per capita per day. In 1909, the energy level was 3,500 kcal. Energy levels decreased until they reached a low of 3,100 kcal in the early 1950s through 1965. Since then, energy levels have generally increased to a high of 3,900 kcal in 2000 (table 1, fig. 10).

Three macronutrients—protein, carbohydrate, and fat—can be converted to energy (fig. 11). The energy contribution from carbohydrate decreased from 57 percent in 1909 to 50 percent in 2000. Throughout the 1900s, protein levels in the food supply have consistently accounted for about 12 percent of total energy; however, in 2000, this dropped to 11 percent. The contribution from fat increased from 31 percent in 1909 to 39 percent in 2000—an all-time high related to the increased use of fats and oils (fig. 11).

Although the contribution of various food groups to food energy in the food supply has fluctuated since 1909, grain products have clearly provided a major share. In 2000, grain products provided 24 percent of the total kilocalories available. The fats and oils group ranked second, providing 22 percent, and the sugars and sweeteners group ranked third, providing 19 percent of the kilocalories. This ranking reverses a trend seen earlier from the mid-1990s when fats and oils and sugars and sweeteners provided nearly similar kilocalorie contributions. In 2000, the meat, poultry, and fish group provided 14 percent of the kilocalories, a consistent amount and trend since the mid-1990s (table 4, fig. 12).

Carbohydrate

Carbohydrate converts to glucose, the main simple sugar used by the body for energy. The level of carbohydrate present in the food supply decreased steadily from 501 grams per capita per day in 1909 to 379 grams in 1963, its lowest level. The drop in use of grain products and white potatoes was chiefly responsible for this decline in carbohydrate levels. Since 1963, carbohydrate levels have increased but are still below the 1909 level of 501 grams. Between 1970 and 2000, carbohydrate levels rose by 21 percent, from 389 grams per capita per day to 490 grams, an increase associated with the use of grain products and sweeteners (fig. 13).

Foods derived from plant sources have always contributed most of the carbohydrate available for consumption. Two food groups in particular, grain products and sugars and sweeteners, have been the major sources of carbohydrate throughout the years.

Figure 10. Food energy in the U.S. food supply, per capita per day, 1909-2000

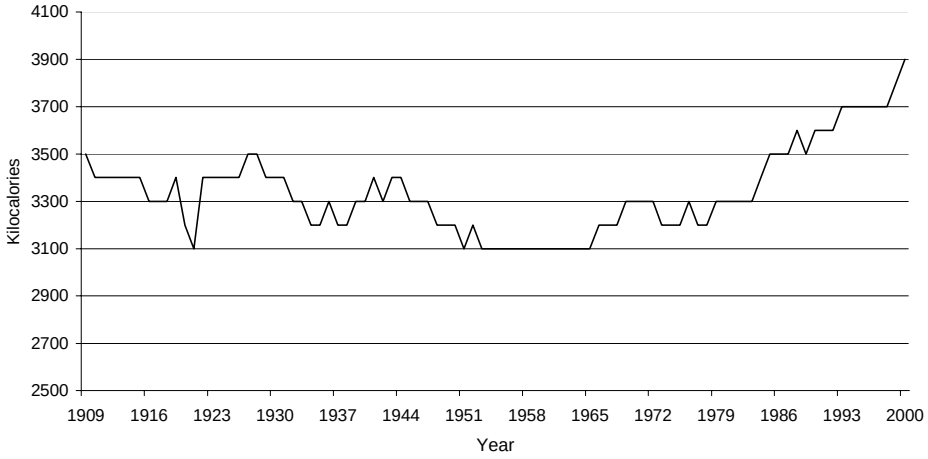


Figure 11. Macronutrient sources of food energy in the U.S. food supply

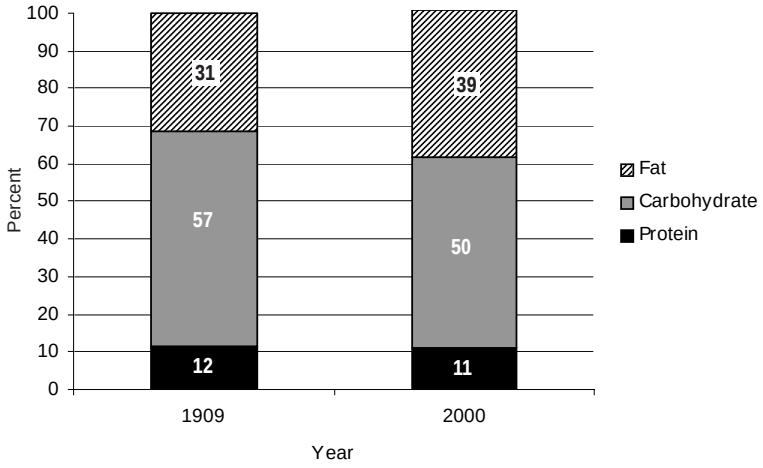


Figure 12. Sources of food energy in the U.S. food supply

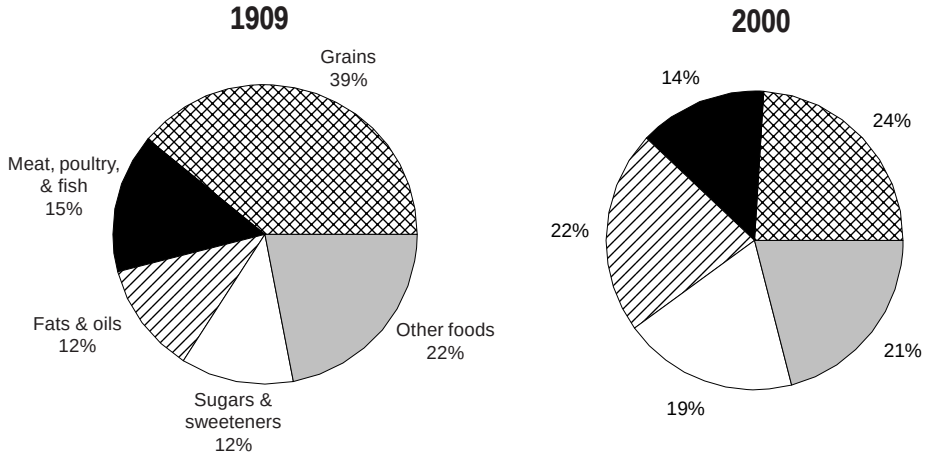
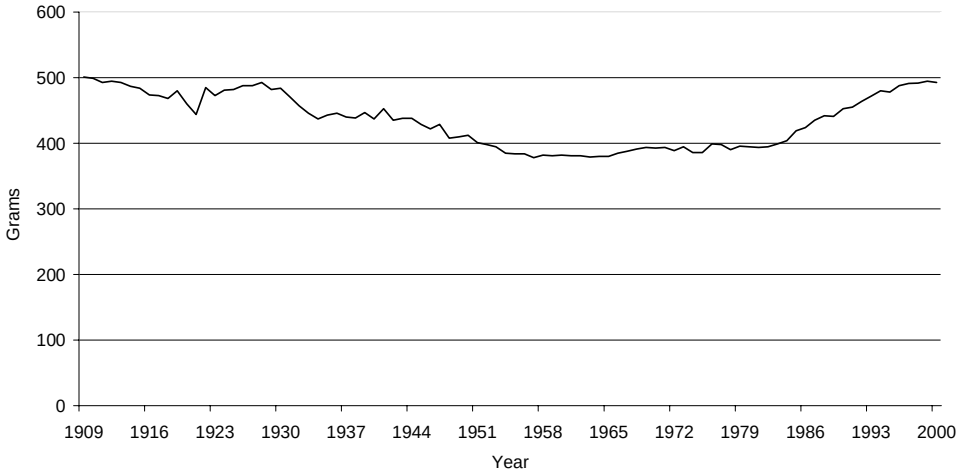


Figure 13. Carbohydrate in the U.S. food supply, per capita per day, 1909-2000



In 1909, grain products provided the highest percentage of carbohydrate in the food supply (57 percent), followed by sugars and sweeteners (21 percent) and fruits and vegetables collectively contributing 15 percent. During 1963-64, when carbohydrate levels were their lowest, the share from grain products dropped to 36 percent, whereas sugars and sweeteners increased to 38 percent. Beginning in the 1990s, grain products have contributed about 38 percent of the carbohydrate in the food supply. In 2000, sugars and sweeteners provided 39 percent of the carbohydrate in the food supply, and contributions from fruits and vegetables collectively were at 14 percent, slightly less than the 1909 level (table 5).

Dietary fiber is primarily the storage and cell wall of polysaccharides found in plants and resistant to human digestive enzymes. The two major kinds of dietary fiber are soluble fiber, found in fruits, vegetables, dry beans and peas, and cereals such as oats; and insoluble fiber, found in whole grains. (See Appendix B.) The level of dietary fiber in the food supply decreased from 30 grams per capita per day in 1909 to 19 grams in 1958, its lowest level (fig. 14). This low level held constant through 1982 and as with carbohydrates, the drop in use of grain products was chiefly responsible for this decline. Since the 1980s, there has been a slow but steady increase in levels of dietary fiber in the food supply. The level of 24 grams per capita per day in 1998 to 2000 is the highest level since WWII when victory vegetable gardens contributed important sources of dietary fiber to the diet (table 1, fig. 14).

The major sources of dietary fiber are grains, fruits, and vegetables. In 1909, grain products provided the highest percentage of dietary fiber in the food supply (49 percent), followed by vegetables (29 percent) and fruits (11 percent). In 2000, grain products contributed 35 percent, an appreciable drop from 1909, and vegetable contributions were slightly lower than in 1909 at 27 percent. Contributions from fruit in 2000 were similar to those in 1909 at 11 percent. Also the legumes, nuts, and soy group has made an important contribution to the dietary fiber available in the food supply over the years, ranging from 10 to 16 percent. In 2000, contributions from this group were greater at 15 percent than in 1909 at 10 percent.

Figure 14. Fiber in the U.S. food supply, per capita per day, 1909-2000

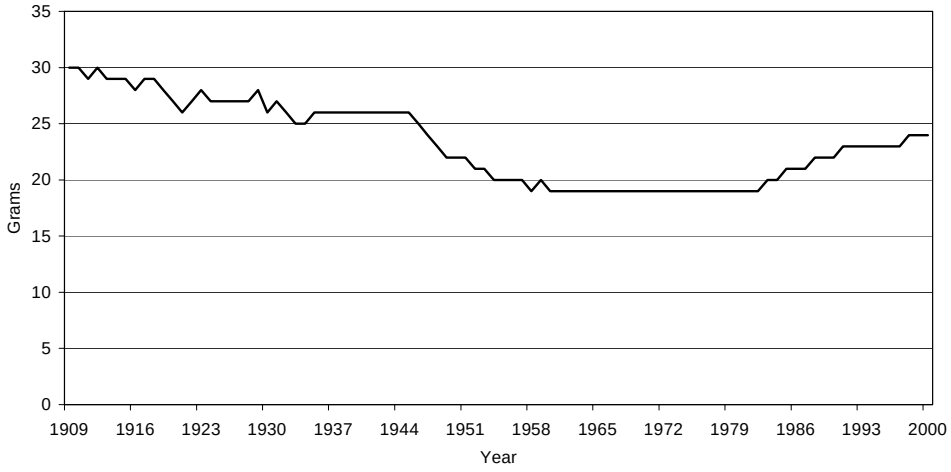
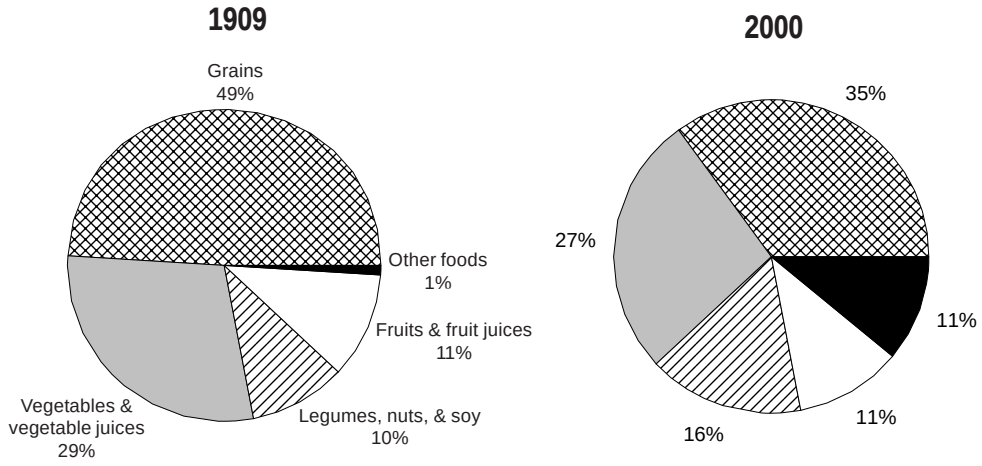


Figure 15. Sources of fiber in the U.S. food supply



Contributions from the miscellaneous group increased substantially from 1 to 11 percent from 1909 to 2000, because of the increased use of spices, a highly concentrated form of dietary fiber (table 6, fig. 15).

Protein

Protein provides amino acids to build and maintain body tissues, forms enzymes necessary for body reactions, and combines with fatty acids to transport vitamins and minerals in the body. The level of protein in the food supply was higher in 2000 (110 grams) than in 1909 (101 grams). From 1909 to 1935, protein levels gradually decreased until reaching their lowest level (86 grams). During and after WWII (1943-46), protein levels rose to levels similar to those in 1909. However, by 1950, protein levels declined and remained at pre-Depression levels throughout the 1960s. Since 1970, protein levels have primarily increased, reaching the highest level in 2000 (table 1, fig. 16).

Figure 16. Protein in the U.S. food supply, per capita per day, 1909-2000

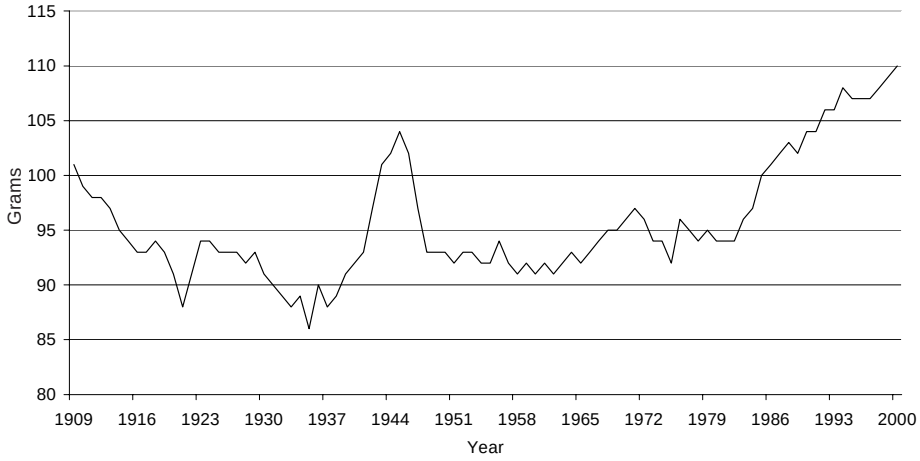
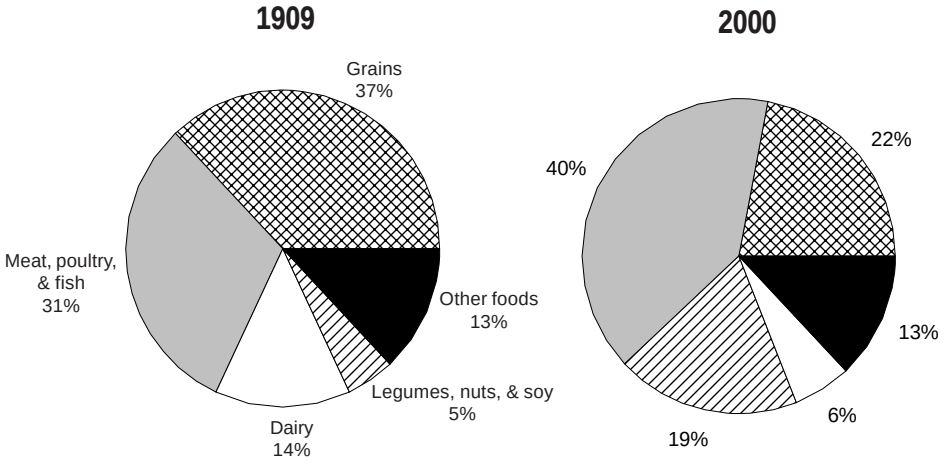


Figure 17. Types of protein in the U.S. food supply, per capita per day

Considerable change has occurred in protein sources since 1909. In 2000, animal sources contributed about 63 percent of total protein; at the beginning of the 20th century, animal and vegetable sources each contributed half (fig. 17).

Grain products provided 37 percent of the protein available in the 1909 food supply. This share has fluctuated over the series, with the lowest levels occurring in the 1970s. Since 1934, grain products have been replaced by the meat, poultry, and fish group as the primary source of protein in the food supply. In 2000, the meat, poultry, and fish group contributed 40 percent, and grain products contributed 22 percent of the protein available in the food supply (fig. 18). Within the meat, poultry, and fish group, red meat has consistently provided the highest share of protein. However, since 1971, red meat's contribution has primarily decreased. Poultry, on the other hand, has made a greater contribution to protein. Beginning at 3 percent in 1909, protein availability from poultry has increased more than four times to 14 percent by 2000 (table 7).

Figure 18. Sources of protein in the U.S. food supply



Since the mid-1930s, dairy products have supplied about one-fifth of the protein in the U.S. food supply. Actual protein contribution from dairy products was highest at 23 percent in the 1950s and early 1960s and lowest at 19 percent in 2000. This change reflects a decrease in the total use of fluid milks and changing trends for individual milk and milk products over time. Whole milk remained a relatively stable source of protein from 1909 through the 1960s; thereafter, its use began to decline. At that time, the use of lowfat milk, yogurt, and hard cheeses began to increase (table 7).

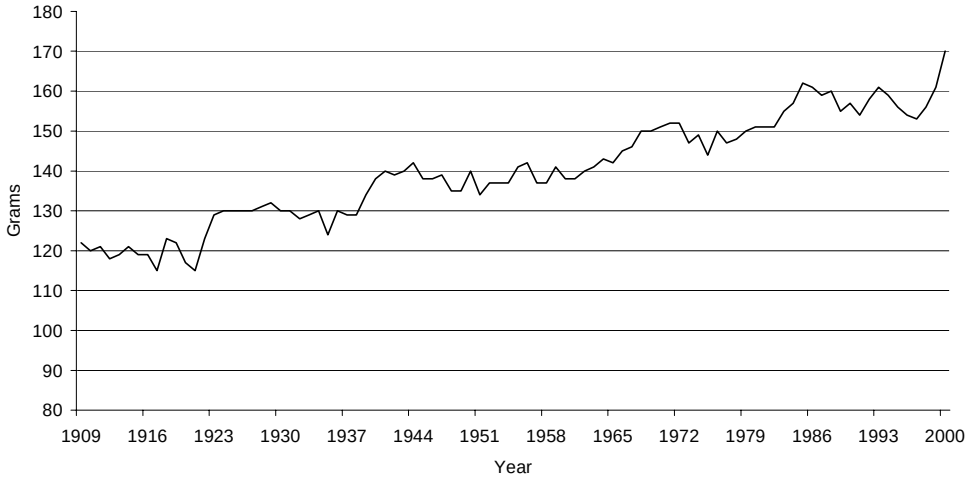
Fat

Fats are the major source of energy storage, help to hold body organs and nerves in position, protect against injury and shock, insulate and maintain body temperature, and act in the transportation and absorption of fat-soluble vitamins. U.S. food supply fat estimates include levels for saturated fatty acids, monounsaturated fatty acids, polyunsaturated fatty acids, and for the dietary component, cholesterol.

Estimates of the total fat content in the food supply include visible fats (i.e., lard, margarine, and oils) and invisible fats (distinguished from the fats and oils group) present in dairy, meat, and baked products. Fat levels in the food supply increased 39 percent between 1909 and 2000 from 122 to 170 grams per capita per day (table 1, fig. 19).

Total fat contributions from red meat have generally declined throughout the series. In the early years, red meat contributed around one-third of the fat; however, by the early 1990s, this contribution decreased to one-fifth and in 2000 was less at 16 percent. Salad oils have made a greater contribution to total fat availability over the series, increasing from 2 percent in the early part to 27 percent in 2000. Although the share of total fat from butter and lard has decreased, it is not enough to offset the percentage associated with increased use of salad oils. Thus, the share of total fat from the fats and oils group has gradually increased from nearly 40 percent in 1909 to 56 percent in 2000 (table 8).

Figure 19. Total fat in the U.S. food supply, per capita per day, 1909-2000



Total fat contributions from dairy products have fluctuated over the series. Lower contributions in the later years reflect the increased use of lowfat and skim milks. In 1909, dairy products contributed 15 percent of total fat available, with whole milk contributing 9 percent and cheese contributing 1 percent of this total. In 2000, this contribution decreased to 12 percent; however, whole milk contributed only 2 percent and cheese's contribution increased to 6 percent (table 8).

The increase in total fats and oils, especially in the last three decades, probably results from the greatly expanded use of fried foods by the fast-food industry and in food service outlets, as well as the increased use of salad oils on salads consumed both at home and away (Putnam & Allshouse, 1999). The nutritional concern in the early 1990s to cut dietary fat in the diet, and most likely both industry and consumer response to that concern, was apparent in the 5-gram decline in total fat in the food supply from 161 grams in 1993 to 156 grams in 1998. However, since then, total fat per capita consumption increased by 9 percent, because of the continued but slightly higher use of salad and cooking oils in the early 1990s both at home and away from home. This upward trend in fats and oils consumption is disturbing in light of the increased obesity in the United States. In fact, despite the emphasis in the past 30 years on fat reduction by the nutrition community, total fat consumption increased 13 percent from 151 grams in 1970 to 170 grams per capita in 2000 (table 1).

While food supply estimates reflect trends in the availability of fats and oils for human food, they have never accurately measured the amount of food eaten because the portion of food wasted or discarded is difficult to determine. With the growth of the fast-food industry in the past three decades, it has become even more difficult to estimate the waste portion or discard of deep-frying fats. Since this discard is not available for human consumption, these estimates are limited as indicators of actual intake. A 1993 study estimated that about 50 percent or more of deep-frying fat used in food service operations is discarded after use and is not available for consumption (Hunter & Applewhite, 1993). Reliable estimates of total fats and oils are difficult to determine partly because the actual amount of frying fat discarded by food

service operations, particularly fast-food restaurants, varies with the type of establishment. To better account for the actual use of fats and oils in the edible food supply, USDA's Economic Research Service looked at food-loss factors at the retail, food-service, and consumer levels (Kantor et al., 1997). About one-third of the total fats and oils in the food supply were estimated to be lost through foodservice and consumer venues and thus not available for consumption. This study underscores the fact that food supply estimates for fat and oil are high; however, these losses are tentative and need additional research.

In recent years, the type of fat used in restaurants and frying operations has changed from edible tallow and solid vegetable oils to partially hydrogenated vegetable cooking oils and liquid oils (Feldman, Kris-Etherton, Kritchevsky, & Lichtenstein, 1996). The hydrogenation process changes oil, naturally high in unsaturated fatty acids, to a more solid and more saturated form. This imparts certain functional properties needed in products, such as product stability, extended shelf life, and lengthened utility. However, it also results in the formation of *trans* fatty acids. Along with the partially hydrogenated vegetable cooking oils and liquid oils used by restaurants and others, *trans* fatty acids are found in the hydrogenated fat used in the manufacture of margarine and vegetable shortening and therefore in foods prepared with these fats, including crackers, cookies, fried foods, and snack foods. Also, a small amount of *trans* fat is found naturally, primarily in some animal-based foods, such as butter, milk products, cheese, beef, and lamb. Current research indicates that intake of *trans* fatty acids raises LDL-C levels nearly as much as cholesterol-raising saturated fatty acids and is associated with the increased risk of coronary heart disease (Lichtenstein, Ausman, Jalbert, & Schaefer, 1999). Recently, the FDA published its final labeling rule on *trans* fatty acids. This rule requires that the amount of *trans* fat in a serving be listed on a separate line under saturated fats on the Nutrition Facts panel. Food manufacturers have until January 1, 2006, to list *trans* fat on the nutrition label (U.S. Department of Health and Human Services, 2003).

While research links consumption of *trans* fatty acids with the increased risk of coronary heart disease, there is limited information available on trends in actual intake of *trans* fatty acid in the United States. A study using data from USDA's 1989-91 Continuing Survey of Food Intakes by Individuals showed that nationally the mean average daily intake of *trans* fatty acids in the U.S. population was estimated to be about 5.3 grams per day or about 2.6 percent of total energy and 7.4 percent of their fat energy (Allison et al., 1999). A more recent study compared the intake of *trans* fatty acids between 1980-82 and 1995-97 by a Minnesota population and found that the intake of *trans* fatty acids was on the decline for palmitoleic, oleic, and linoleic fatty acids as well as total *trans* fatty acids. In this study, the mean of total *trans* fatty acids decreased from 3 percent of total energy in 1980-82 to 2.2 percent of total energy in 1995-97 (Harnack et al., 2003). In general, the amount of *trans* fatty acids in the diet appears to have remained relatively constant in the past 20 years, in part, because the increased consumption of vegetable fat has been counterbalanced by a decrease in the *trans* fatty acids content of many products made with vegetable fat (Feldman et al., 1996).

Fatty Acids

Changes in the levels and sources of fat in the food supply have affected the per capita estimates of saturated, monounsaturated, and polyunsaturated fatty acids (table 1, fig. 20). These estimates reflect current food technologies and consumer demand for foods. Fatty acids in the U.S. food supply are divided into three categories: saturated, monounsaturated, and polyunsaturated (table 1).

Saturated Fatty Acids. *In general, saturated fatty acids are concentrated in dairy products; red meat and poultry; and palm, palm kernel, and coconut oils.* Saturated fatty acids decreased from 52 grams per capita in 1909 to 54 grams in 2000 and accounted for a smaller share of total fat in 2000 (32 percent) than in 1909 (43 percent). In 1909 and 2000, the fats and oils group was the primary source of saturated fatty acids, contributing 40 percent in 1909 and 44 percent in 2000. Over the series, the fats and oils group generally has been the leading contributor of saturated fatty acids. An exception is the period between 1968 and 1977 when consumption of red meat rose, resulting in a greater contribution of saturated fatty acids from this group. Otherwise the meat, poultry, and fish group has been the next leading source of saturated fatty acids in the food supply, followed by dairy products. In 2000, the meat, poultry, and fish group provided about 26 percent and dairy products, 23 percent of the saturated fatty acids in the food supply (table 9, fig. 21).

Monounsaturated Fatty Acids. *Monounsaturated fatty acids are found in olive, canola, and peanut oils; almonds; and avocados.* The amount of monounsaturated fatty acids increased from 47 grams per capita in 1909 to 72 grams in 2000 (table 1). The amount of monounsaturated fatty acids as a share of total fat in the food supply has been about two-fifths for most years of the series. During the past 10 years, this share has generally increased and was 43 percent in 2000 due to the increased use of salad and cooking oils and the consistent contribution from shortening (fig. 22). The fats and oils group has been the leading contributor of monounsaturated fatty acids in the food supply. Its contribution has increased from 40 percent in 1909 to 59 percent in 2000. The meat, poultry, and fish group has been the secondary source of monounsaturated fatty acids with contributions generally decreasing over the series from 42 percent in 1909 to 25 percent in 2000. Both of these trends reflect the greater use of vegetable fats and their replacement of animal fats over the years (table 10, fig. 22).

Polyunsaturated Fatty Acids. *Polyunsaturated fatty acids are found in salad and cooking oils and fish. Polyunsaturated fatty acids have two classes: omega-6 and omega-3. Omega-6 fatty acids are found in salad and cooking oils, and fish is the primary source of omega-3 fatty acids.* The absolute level of polyunsaturated fatty acids increased more than two and a half times from 13 grams in 1909 to 36 grams in 2000 (table 1). Polyunsaturated fatty acids accounted for about 21 percent of the total fat in 2000 compared with 11 percent in 1909. In 1909, the meat, poultry, and fish group and the fats and oils group each contributed about one-third. Grain products contributed 17 percent of the polyunsaturated fatty

Figure 20. Saturated, monounsaturated, and polyunsaturated fat in the U.S. food supply, per capita per day, 1909-2000

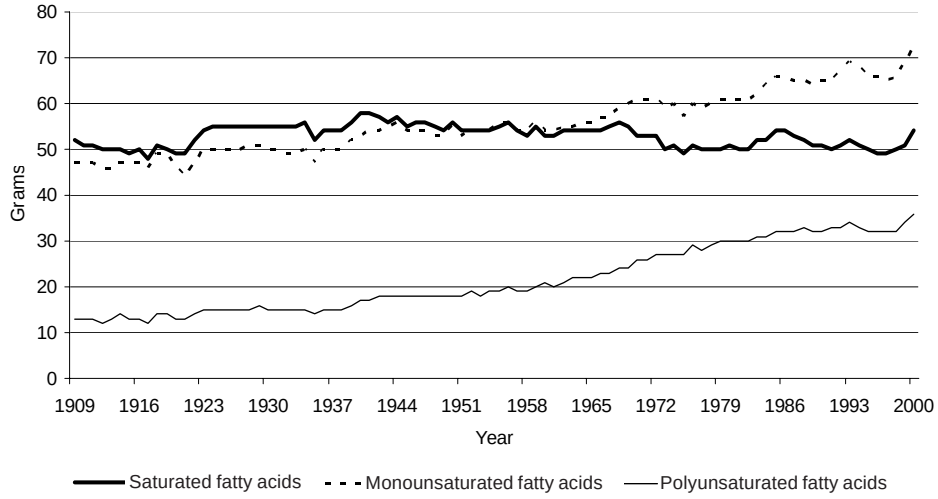


Figure 21. Sources of saturated fatty acids in the U.S. food supply

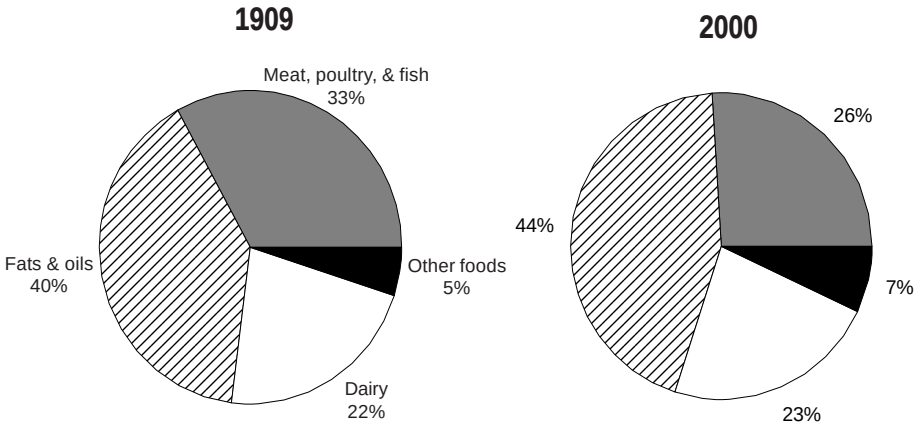
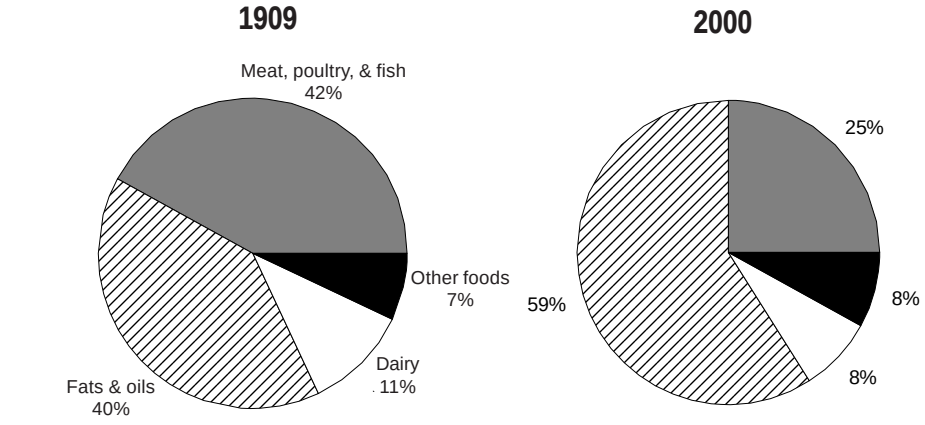


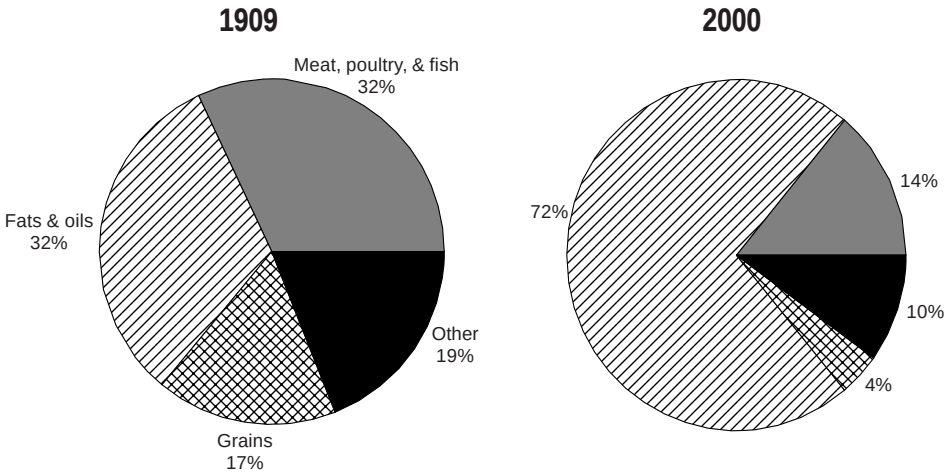
Figure 22. Sources of monounsaturated fatty acids in the U.S. food supply



acids available. Since then, the share provided by the fats and oils group has steadily increased, more than doubling in 2000 compared with 1909 and reaching an all-time high of 72 percent in 2000. Also, in 2000, contributions from the meat, poultry, and fish group to polyunsaturated fatty acids availability decreased by more than one-half, and contributions from the grain group decreased from 17 to 4 percent or by more than three-fourths compared with 1909 (table 11, fig. 23).

Individual Fatty Acids. In this report, individual fatty acid nutrient values per capita per day and their contribution by food group are provided for 1980-2000 (table 1a, table 1b). Individual saturated fatty acids are straight-chain fatty acids of variable carbon chain length with no double bonds between carbon atoms. Chain length varies from 8 to 18 carbon atoms. Saturated fatty acids are usually solid at room temperature and are concentrated in dairy products, red meat and poultry, and some plant oils (palm, palm kernel, coconut oils, and cocoa butter). The most prevalent saturated fatty acids in the American diet are palmitic (16:0) and stearic (18:0) acids. Levels of palmitic and stearic acids in the food supply remained relatively stable at around 30 and 15 grams per capita per day, respectively, for the 1980-98 period (table 1a). However, in 1999 and 2000, these levels showed an increase of 2 and 1 gram, respectively. In 2000, the meat, poultry, and fish group accounted for 29 percent; dairy products, 24 percent; and fats and oils, 40 percent of the palmitic acid in the food supply. Stearic acid contributions were 27 percent, 20 percent, and 48 percent, respectively, from the meat, poultry, and fish group; dairy products; and fats and oils. From 1980 to 2000, contributions of palmitic and stearic fatty acids decreased from the meat, poultry, and fish group and increased from the fats and oils group because of greater use of palm, palm kernel, and coconut oils, and cocoa butter in the baking industry (data not shown).

Figure 23. Sources of polyunsaturated fatty acids in the U.S. food supply



Individual monounsaturated fatty acids contain only one double bond. The predominant monounsaturated fatty acid in foods is oleic acid (18:1). Olive oil, canola oil, peanut oil, almonds, and avocados are the most concentrated food sources of oleic acid. Oleic acid per capita per day in the food supply increased from 56 grams in 1980 to 68 grams in 2000. In 2000, fats and oils contributed 59 percent of this fatty acid to the food supply, with equal amounts coming from shortening and salad and cooking oils (table 1a).

As with the two major saturated fatty acids (palmitic and stearic), contributions of oleic acid from the meat, poultry, and fish group are less in 2000 than in earlier years, because of higher contributions of oleic acid from the fats and oils group (data not shown).

Individual polyunsaturated fatty acids contain two or more double bonds. There are two classes with this category: omega-6 and omega-3. The predominant polyunsaturated fatty acid in the American diet is linoleic acid (18:2n-6). Key sources of linoleic acid are vegetable seeds and the oils they produce. In 2000, fats and oils accounted for 74 percent of this fatty acid in the food supply, with salad and cooking oils providing over half of this total. Linoleic contributions from fats and oils remained relatively stable during the 1980-99 period but increased somewhat in 2000 because of a 2.5-gram increase of this fatty acid per capita per day from 1999 and a more dramatic increase of 7 grams per capita per day (26 to 33) since 1980 (table 1a).

Linoleic (18:2) and linolenic (18:3) acids are the two dietary essential fatty acids because they cannot be synthesized by humans and failure to include recommended levels of these essential fatty acids in the diet can result in deficiency symptoms. Linoleic and linolenic acids are the parent compounds of the omega-6 and omega-3 fatty acids, respectively. These families of fatty acids are also precursors of eicosanoids (prostaglandins, thromboxanes, and leukotrienes), which are hormone-like compounds that regulate blood pressure, heart rate, vascular dilation, blood clotting, lipolysis, and immune response (Mahan & Escott-Stump, 1996). Omega-3 fatty acids of nutritional interest are α-linolenic acid and its derivatives—eicosapentaenoic acid (EPA)(20:5) and docosahexaenoic acid (DHA)(22:6). In the American diet, main food sources of linolenic acid are salad and cooking oils and margarine and shortening made from canola or soybean oil. From 1980 to 2000, linolenic acid per capita per day in the food supply increased somewhat from 2.5 grams to 3.2 grams.

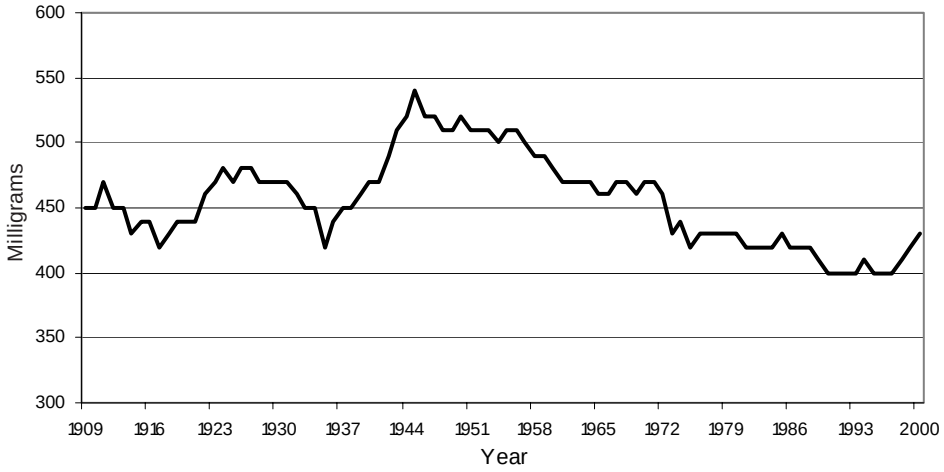
In 2000, fats and oils accounted for 67 percent of the linolenic acid in the food supply, a 15-percent increase from 1980. Fish is the primary source of EPA and DHA. In 2000, fish accounted for 80 percent of the EPA and about 55 percent of the DHA. Since 1980, both the EPA and DHA levels from fish have increased somewhat as a result of the increase in per capita consumption of fish and the types of fish consumed (table 1c). Eggs are also a source of EPA and DHA, with DHA contributions decreasing over the period from 19 to 12 percent because of the decrease in egg consumption (data not shown).

Between 1980 and 2000, the ratio of omega-6 to omega-3 fatty acids in the food supply fluctuated somewhat but ultimately decreased from 10.1:1 in 1980-84 to 9.7:1 in 1995-2000 (table 1d). This is much higher than the recommended ratio of 2.3:1 (Kris-Etherton et al., 2000). Dietary recommendations have focused on increasing consumption of the highly unsaturated omega-3 fatty acids, EPA and DHA, to achieve optimal health benefits. In 2000, EPA and DHA contributed little to the total fat available from the food supply: 0.045 grams and 0.090 grams per capita per day, respectively.

Cholesterol

Cholesterol is a component of cell membranes and is involved with biosynthesis of steroids found in animal products. Good sources include red meat, butter, and eggs. Cholesterol has been positively linked to the risk of cardiovascular disease. Dietary cholesterol decreased by about 4 percent between 1909 and 2000 from 450 to 430 mg per capita per day (fig. 24). The peak level of 540 mg occurred at the end of WWII when use of eggs and dairy products was high (table 1, fig. 24). Eggs were the primary source of cholesterol from 1909 until the early 1970s. Eggs' contribution to total cholesterol peaked during the 1950s at 43 percent. Since then, the share of cholesterol from eggs has experienced a general downward trend, reaching its lowest point, 34 percent, in 1995. From the early 1970s, the cholesterol share from meat, poultry, and fish has continued to increase until 1995, providing 44 percent. Since then, this contribution has been stable and in 2000 continues to be 44 percent. Although no single food in the meat, poultry, and fish group contributes more cholesterol than eggs, the group as a whole contributes a significant share of available cholesterol. The share from dairy products has fluctuated somewhat but has remained relatively stable at 16 percent in the later years of the series. However, shifts have occurred in product use within the dairy group, with less whole milk and cream and more lowfat milks, yogurt, and cheese as contributors to cholesterol availability from 1909 to 2000 (table 12).

Figure 24. Cholesterol in the U.S. food supply, per capita per day, 1909-2000



Vitamins and Minerals

Since the first publication of the U.S. per capita consumption of major food commodities and their nutrients in 1949 (USDA, 1949), vitamin and mineral requirements have changed radically. This change has been due to new and emerging science about nutrient requirements needed for health and chronic disease prevention. Beginning with the publication of the Recommended Dietary Allowances (RDAs), established by the Committee on Dietary Allowances and the Food and Nutrition Board in 1943 through its final revision in 1989 (NAS, 1989), there has been significant expansion of the science research base used to define requirements for vitamin and mineral intake. This increase in scientific data from both observational and experimental studies led to the publication of a series of reports on Dietary Reference Intakes (DRIs) by the National Academy of Sciences, Institute of Medicine beginning in 1997 (IOM, 1997) with bone-related nutrients. Subsequent publications in the series (IOM, 1998, 2000b, 2001, 2002) on vitamins and minerals have focused on their role in the reduction of chronic disease risk and the daily requirements needed to maintain normal biochemical status of these nutrients (IOM, 2001). For more information on DRIs, see box pp. 4-5.

Vitamins

Vitamins are organic compounds essential for specific metabolic reactions in the body. They are noncaloric molecules that cannot be synthesized by human tissue cells from simple metabolites. Many vitamins act as coenzymes or as parts of enzymes responsible for essential chemical reactions associated with functional or health outcomes. With the current science of plant metabolism, it is possible to increase the vitamin content of staple foods by both conventional plant breeding and genetic engineering. Such activities provide a strategy to reduce nutrient deficiencies in human populations by replacing or complementing other strategies already in place, such as food fortification or nutrient supplementation.

Vitamin A, Carotenes

Vitamin A is a fat-soluble antioxidant vitamin essential for vision, growth, bone development, development and maintenance of epithelial tissue, the integrity of the immune system, and reproduction. There are a variety of foods rich in vitamin A and provitamin A carotenoids available in the U.S. food supply, such that overt symptoms of vitamin A deficiency are rare. Vitamin A occurs in different forms: preformed retinoids and carotenoids. Preformed vitamin A is abundant in some animal-derived products; whereas, provitamin A carotenoids are abundant in darkly colored fruits and vegetables, as well as oily fruits and red palm oil. Beta-carotene is the most active of the carotenoids. Both preformed retinoids and carotenoids are converted to retinol in the body. Historically, Retinol Equivalents (RE) have been used to calculate the vitamin A activity in foods in the food supply; however, with the release of DRIs for vitamin A (IOM, 2001), Retinol Activity Equivalents (RAE) are now the unit used for expressing vitamin A activity. The RAE and its conversion factors, as applied to retinol and provitamin A carotenoids, are based on recent studies, which show that the conversion of provitamin A carotenoids to retinol is only half

as great as previously thought (IOM, 2001). As such, retinol activity in the food supply may be lower than previously reported as vitamin A (RE), especially from those foods high in provitamin A carotenoids, such as carotene-rich fruits and vegetables (table 2).

Total vitamin A increased from 1,080 mg RAE per capita per day in 1909 to 1,260 mg RAE per capita per day in 2000. Levels of vitamin A were highest in 1945 at 1,300 mg RAE per capita per day due to increases in the WWII food supply of vitamin A rich-containing foods included from victory vegetable home gardens. Since then, levels of vitamin A have generally fluctuated over the series (table 2, fig. 25). Carotenes increased from 430 mg RE to 720 mg RE per capita per day between 1909 and 2000 (table 2, fig. 26). The highest level, 820 mg RE per capita per day was in 1997. Carotene values generally increased over the series because of the development of new varieties of deep-yellow vegetables, such as carrots and squash from the late 1960s through the 1970s; the increased availability of dark-green vegetables such as broccoli; and an update of a miscellaneous vegetable composite, reflective of these vegetables in the late 1990s.

Figure 25. Vitamin A (RAE) in the U.S. food supply, per capita per day, 1909-2000

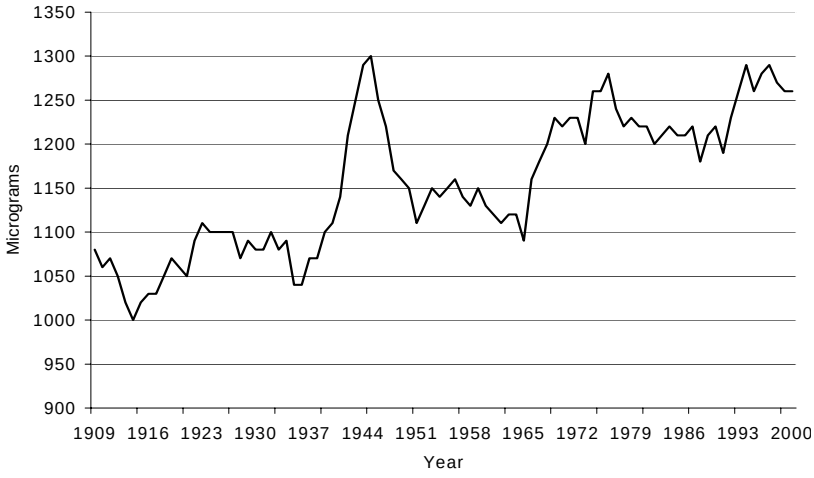
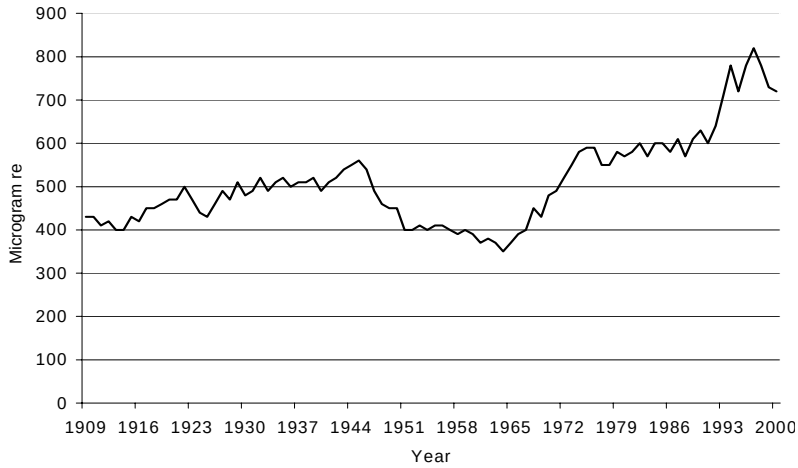


Figure 26. Carotenes in the U.S. food supply, per capita per day, 1909-2000



The meat, poultry, and fish group was the leading source of vitamin A in both 1909 and 2000; however, this contribution dropped from about 39 percent in 1909 to 27 percent in 2000. Organ meats accounted for an appreciable amount of vitamin A from this group in the earlier years of the series, but more recently use has declined. The vegetable group was the second leading source of vitamin A in both 1909 and 2000, providing 19 and 24 percent, respectively, to the total vitamin A in the food supply. Dark-green and deep-yellow vegetable types accounted for most of the vegetable contribution to vitamin A (table 13) and also were responsible for the increased contribution of carotenes over the series (table 14). However, vitamin A contributions from vegetables in this report are less than in previous reports because when using mg RAE, the vitamin A activity of provitamin A carotenoids is half the vitamin A activity assumed when using mg retinol equivalents (RE) (IOM, 2001). Dairy products are the third leading source of vitamin A, providing 16 percent in 1909 and 22 percent in 2000 due to increased use of other dairy foods, such as yogurt and frozen desserts (table 13). Fortification of margarine with vitamin A since the mid-1940s and breakfast cereals beginning in 1974 has also made important vitamin A contributions to the total vitamin A content of the food supply.

Vitamin E

Vitamin E is a fat-soluble antioxidant vitamin that prevents vitamin A and essential fatty acids from breaking down (oxidizing) and protects the body from cell damage that can lead to cancer, heart disease, and cataracts with age. Overt deficiency is very rare, thus current dietary patterns appear to provide sufficient vitamin E to prevent deficiency symptoms (IOM, 2000b). The level of vitamin E was 19.2 mg alpha TE per capita per day in 2000, up from 7.2 mg alpha TE per capita per day in 1909. The level of vitamin E has generally increased over the series with the highest level in 2000 (table 2, fig. 28). Higher levels are due primarily to increased use of vegetable oils for salads and cooking, such as soybean, corn, sunflower, olive, and canola oils, and, to a lesser extent, use of margarine and shortening.

The fats and oils group is by far the largest contributor to vitamin E availability in the food supply, providing more than two-thirds since the early 1970s (table 15). In 1909, this group contributed about 34 percent of vitamin E to the food supply, followed by grain products at roughly 18 percent and vegetables at about 7 percent. In 2000, the fats and oils group contributed 72 percent of total vitamin E in the food supply. This contribution is the highest of the series and reflects an increased use of fats and oils from a general decline in use beginning in 1994.

Vitamin C

Vitamin C or ascorbic acid functions physiologically as a water-soluble antioxidant (IOM, 2000b). Vitamin C is best known for its prevention of scurvy. It also has beneficial roles in immune responses, wound healing, and allergic reactions (Mahan & Escott-Stump, 1996). The level of vitamin C increased from 98 mg per capita per day in 1909 to 126 mg per capita per day in 2000. The highest level of 133 mg per capita per day in 1996 dropped

Figure 27. Sources of vitamin A (RAE) in the U.S. food supply

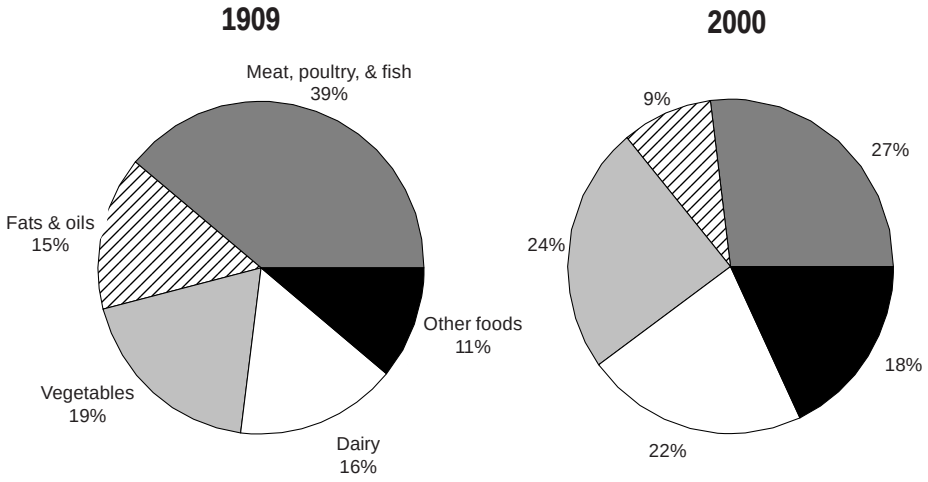


Figure 28. Vitamin E in the U.S. food supply, per capita per day, 1909-2000

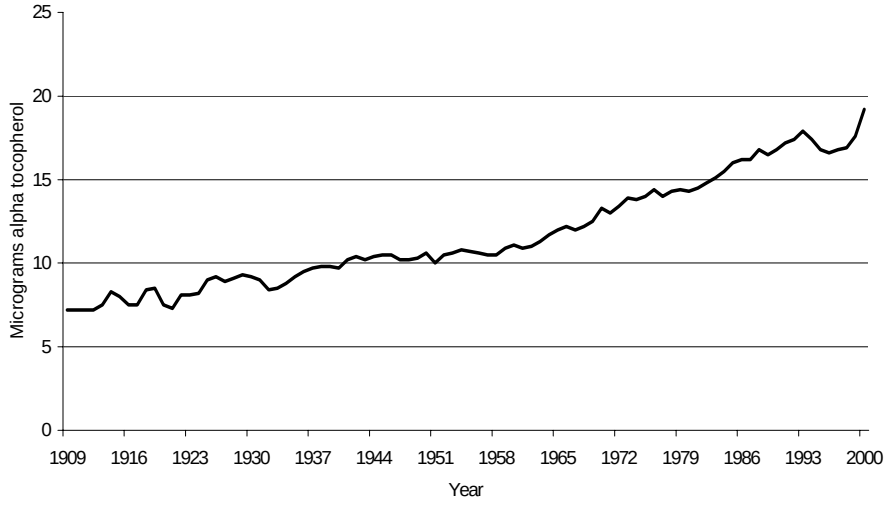
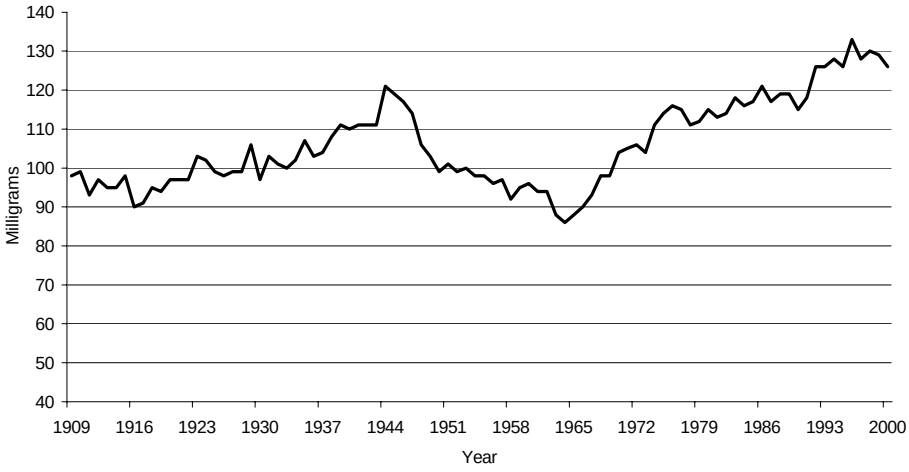


Figure 29. Vitamin C in the U.S. food supply, per capita per day, 1909-2000



somewhat (5 percent) in 2000 (table 2, fig. 29). In 1944-45, vitamin C levels were also high, at an average of 120 mg per capita per day, due to the popularity of home-grown vegetable gardens during WWII. Vitamin C availability has generally increased since the mid-1960s because of better quality, increased variety, and year-round availability of many fresh fruits and vegetables.

The fruit and vegetable share of total vitamin C in the food supply has been around 90 percent over the years. Although this percentage has remained relatively constant, shifts have occurred in the types of vegetables and fruits providing vitamin C. For example, early in the 20th century, white potatoes were an important source, providing around one-third; by 2000 their share was halved. Citrus fruits provided 7 percent of the vitamin C availability in 1909 and 26 percent in 2000, almost a fourfold increase (table 16).

Thiamin, Riboflavin, Niacin

These vitamins are components of essential enzyme systems involved with energy metabolism. Levels of each of these vitamins in the food supply were considerably higher in 2000 than in 1909, primarily because of the enrichment of flour beginning in the early 1940s. Also, nutrient fortification standards for breakfast cereals were updated in 1974 (DHHS, 1974), resulting in a higher level of fortification and subsequent increase in these nutrients. Between 1909 and 2000, thiamin increased from 1.6 to 2.9 mg per capita per day; riboflavin, from 1.9 to 2.9 mg per capita per day; and niacin,[5] from 18 to 32 mg per capita per day (table 2). These higher levels virtually ensure that these vitamins pose no public health problems to most Americans (IOM, 1998).

Levels of these vitamins in the food supply have fluctuated over time, with the lowest levels occurring in the mid-1930s (figs. 30 and 31). Vitamin levels began to increase in the early 1940s with the introduction of enriched flour but declined by the late 1940s because of a decrease in the use of grain products. Levels remained low until the late 1960s when they, particularly niacin, began to increase slowly, reflecting increased use of poultry and grain products. The continued upward trend of these vitamins since the mid-1970s has been primarily due to the increase in the fortification standards of ready-to-eat cereals (DHHS, 1974) and the greater use in more recent years of enriched grain products.

Although the enrichment of grain products is primarily responsible for the higher levels of these three vitamins, grain products have been the leading source of thiamin since the early 1940s. Before enrichment, the meat, poultry, and fish group was the primary source of thiamin, with grain products ranking second for most of the earlier years in the series. With the introduction of enriched flour, grain products became the primary source of thiamin in the food supply, providing 36 percent of the total thiamin in the 1940s. In 2000, grain products accounted for about 60 percent of the thiamin in the food supply, followed by the meat, poultry, and fish group (18 percent), fruits and vegetables (12 percent), and dairy (5 percent) (table 17, fig. 32).

[5]Food composition data give only the amount of reformed niacin in food. Thus, per capita nutrient estimates refer to availability of preformed niacin in the food supply, not that formed in the metabolism of tryptophan.

Figure 30. Thiamin and riboflavin in the U.S. food supply, per capita per day, 1909-2000

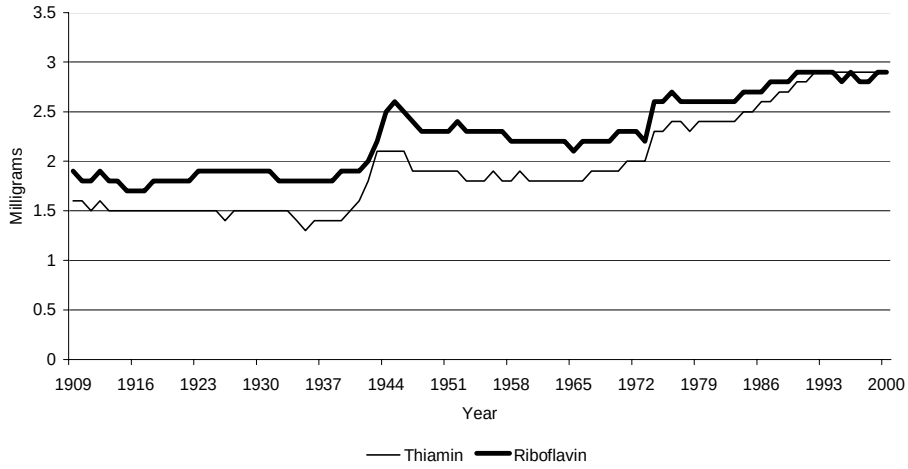


Figure 31. Niacin in the U.S. food supply, per capita per day, 1909-2000

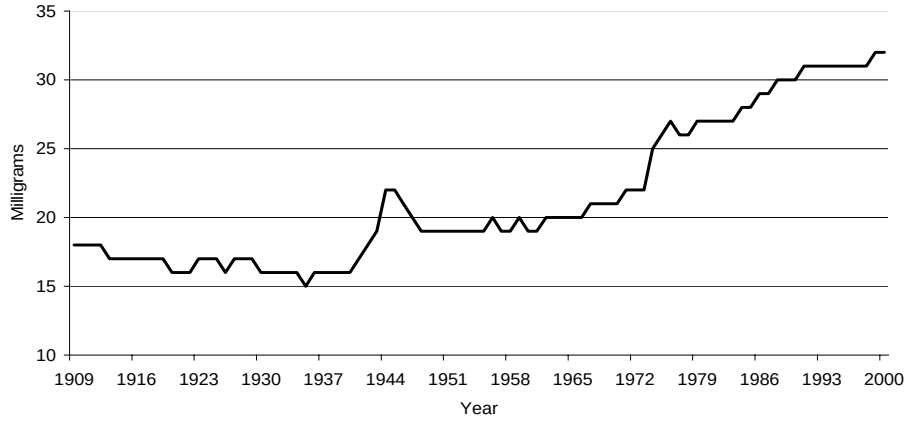
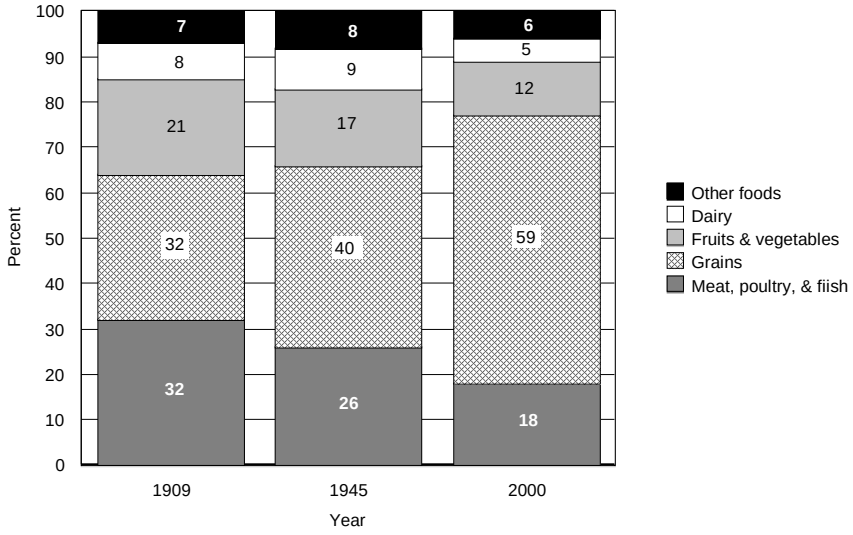


Figure 32. Sources of thiamin in the U.S. food supply



Prior to 1974, dairy products had been the leading source of riboflavin in the food supply. Riboflavin levels reached 2.6 mg in the mid-1940s, reflecting the increased use of dairy products during WWII as well as the introduction of enriched flour. Fortification of breakfast cereals has shifted the primary source of riboflavin to grains with dairy products as the secondary source. Riboflavin levels peaked in 1990 at 2.9 mg and have since remained stable. The riboflavin share from grain products increased substantially from 15 percent in 1909 to 39 percent in 2000; whereas, that from dairy decreased from 34 to 26 percent during that period. By contrast, the riboflavin share from the meat, poultry, and fish group has fluctuated over time, gradually decreasing from a high of 24 percent in the early part of the 20th century to a low of about 17 percent in 2000 (table 18, fig. 33).

Prior to 1974, the meat, poultry, and fish group was the largest source of niacin, followed by the grain and vegetable groups. In 1909, the meat, poultry, and fish group accounted for 42 percent; the grain group, 30 percent; and the vegetable group, 18 percent of the niacin available in the food supply. In 2000, grain products contributed the largest share of niacin in the food supply (45 percent), followed by the meat, poultry, and fish group (36 percent) and the vegetable group (9 percent) (table 19, fig. 34).

Vitamin B_6

As a coenzyme, vitamin B_6 aids in the synthesis and breakdown of amino acids, fatty acid synthesis, and the conversion of tryptophan to niacin. The level of vitamin B_6 in the food supply rose from 2.3 µg per capita per day in 1909 to 2.4 µg in 2000. Levels of vitamin B_6 have not varied much over the years (table 2), but shifts have occurred in the sources.

In 1909, the vegetable group provided 33 percent of the total vitamin B_6 available and was the leading source of vitamin B_6 in the food supply. This lead continued through 1941. However, since 1942, the meat, poultry, and fish group has been the primary source of vitamin B_6, reflecting a greater use of beef and poultry. In 2000, the meat, poultry, and fish group contributed 35 percent of the total vitamin B_6, up from 27 percent in 1909. Vegetables declined in importance as a source of vitamin B_6 because the use of white potatoes dropped. However, vegetables still contributed nearly 22 percent of vitamin B_6 to the food supply in 2000. Grain products provided 18 percent of vitamin B_6 in 1909, but their contribution was less than half that from the mid-1950s through the mid-1960s. Contributions of vitamin B_6 from fortified breakfast cereals were primarily responsible for the increase to 15 percent from grains in the early 1970s (DHHS, 1974). In 2000, grains provided 18 percent of the available B_6 to the food supply, while dairy and fruit contributions were similar, at 9 and 10 percent, respectively (table 20).

Folate

Folate functions as a coenzyme and is essential for the biosynthesis of nucleic acids and normal maturation of red blood cells. Low serum folate levels have been associated with elevated serum homocysteine, an independent risk factor for vascular disease, pregnancy complications, and adverse pregnancy outcomes (Vollset et al., 2000). A regular intake of

Figure 33. Sources of riboflavin in the U.S. food supply

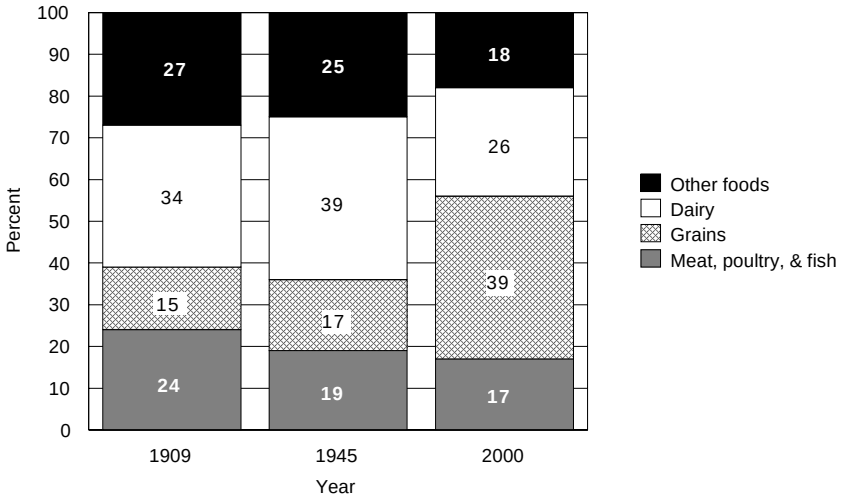
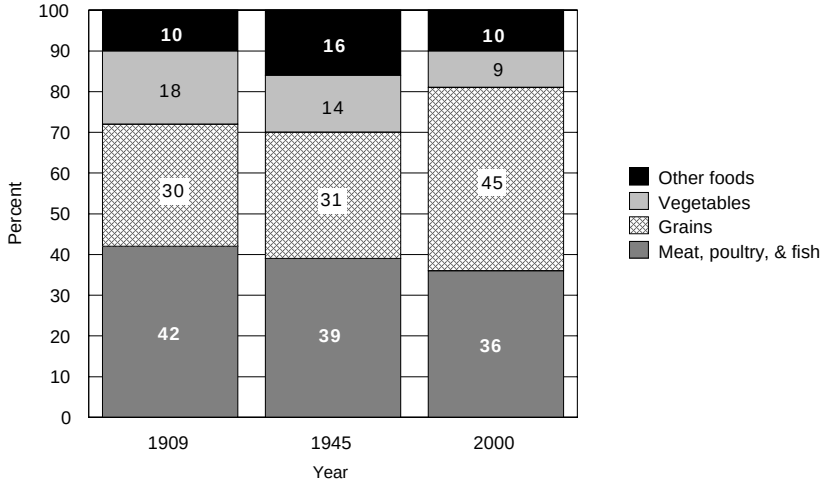


Figure 34. Sources of niacin in the U.S. food supply



as little as 100 µg folic acid per day was sufficient to lower total homocysteine in persons at the upper end of the normal range for total homocysteine. Low-level fortification may also be appropriate for lowering the risk of neural tube defects given that, when aggregated from all sources, the total intake of folic acid may be sufficiently high to adequately improve the folate status of young women (Venn et al., 2002). For the first time in this report, folate levels will be reported as both total folate µg and folate µg Dietary Folate Equivalents (DFE). This is in response to changes in folate reporting as recommended by the National Academy of Sciences, Institute of Medicine (IOM, 1998). The use of DFE takes into account the greater bioavailability of synthetic folic acid compared with naturally occurring food folate. Total folate (µg) and folate DFE levels are similar over the series until 1973, at which time cereal fortification (containing the synthetic form of folate) resulted in higher values for folate DFE than for total folate (table 21). In 1998, with the folate fortification of cereal products, levels of total folate and folate DFE both increased as expected, but levels for folate DFE are about 30 percent higher than that for total folate.

The lowest level of total folate and folate DFE in the food supply was in 1965, at 278 µg and 277 µg DFE per capita per day, respectively. This low level was due to the decreased use of grain products and vegetables, mostly potatoes. The highest levels of total folate (692 µg) and folate DFE (907 µg) per capita per day were in 1999 and 2000, respectively, with increasing levels since 1998 due to mandatory fortification of grains with folate (table 2, fig. 35).

Vegetables were the leading source of total folate (and folate DFE) prior to 1974, accounting for nearly 29 percent of the folate in the food supply in 1909; whereas, grain products provided 24 percent for the same year. From the late 1940s through the mid-1970s, folate contributions from grains were much lower (around 14 to 15 percent) due to a decreased use of grain products during that period. During this time and prior to 1974 when an adjustment of folate fortification levels in breakfast cereals was made, the legumes, nuts, and soy group consistently provided one-fifth of the total folate in the food supply. From 1974 through 1997, the total folate contribution from this group was around 17 percent, while that for folate DFE was just slightly lower at 16 percent. Also, during that time, folate contributions from grain more than doubled. With mandatory U.S. folate fortification of grains in 1998, a major shift occurred in food commodity contributions to total folate in the food supply. Grain products continued to be the primary source, but its contributions doubled for total folate, from 30 percent in 1997 to 62 percent in 2000, and for folate DFE from 35 percent to 71 percent in 2000. A corresponding decrease in contribution occurred from the vegetable group with a decrease from 12 to 6 percent for total folate and from 20 to 9 percent for folate DFE from 1997 to 2000. Likewise, contributions from the legumes, nuts, and soy group, an important folate contributor in the earlier years of the series, decreased from 18 to 10 percent total folate and from 17 to 8 percent folate DFE for those years. In 2000, fruits provided less than 5 percent of the folate DFE and vegetables provided less than 9 percent of folate DFE (table 21). It should be noted that the absolute level of total folate and folate DFE did not decrease for legumes, nuts, and soy; fruits; or vegetables from 1998 to 2000. However, their contributions were minimized by the large contributions from grains (table 21, fig. 36). Folate food supply may be useful to both the food industry and policymakers as they assess and monitor the effect of folate fortification on the diet of Americans over time (Rader & Yetley, 2002).

Vitamin B_{12}

Vitamin B_{12} is essential for normal cell metabolism, especially for cells in the gastrointestinal tract, bone marrow, and nervous tissue and is involved with folate metabolism (Mahan & Escott-Stump, 1996). Unlike the other B vitamins, B_{12} is normally found in animal products. The level of vitamin B_{12} in the food supply was slightly lower in 2000 at 8.3 µg per capita per day than in 1909 at 8.5 µg per capita per day. Levels of vitamin B_{12} were highest at 9.5 µg in 1944 and again in 1970, a period of high beef, pork, and organ meats usage. In contrast, vitamin B_{12} levels were lowest in the mid-1930s, reflecting a reduced use of foods in the meat, poultry, and fish group during the Depression (table 2).

Figure 35. Folate (DFE) in the U.S. food supply, per capita per day, 1909-2000

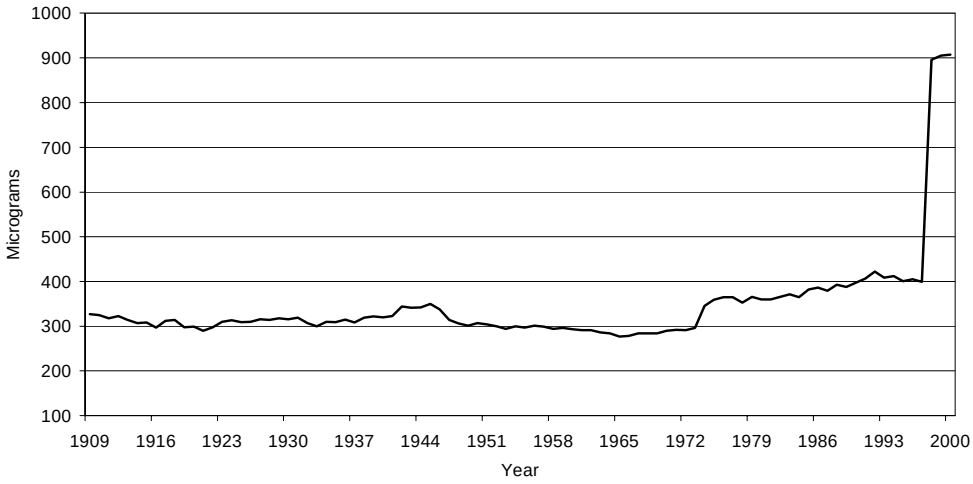
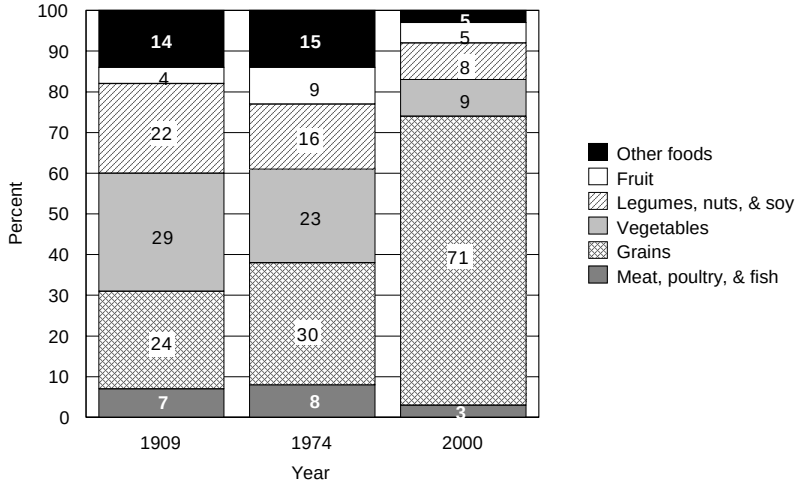


Figure 36. Sources of folate DFE in the U.S. food supply



Vitamin B_{12} occurs naturally in animal foods only. The meat, poultry, and fish group has been the primary contributor of vitamin B_{12} over the years, accounting for about three-fourths of the total amount in the food supply. Dairy products and eggs have also contributed important shares of vitamin B_{12} over the series, with dairy products providing around 20 percent and eggs about 4 to 6 percent (table 22).

Minerals

Minerals occur in the body and in food chiefly in the ionic form. In the body, they have essential roles both as dissolved ions in body fluids and as constituents of essential compounds (Mahan & Escott-Stump, 1996). Food supply data include calcium, phosphorus, magnesium, iron, zinc, copper, selenium, potassium, and sodium.[6] In general, per capita levels of minerals generally meet the DRIs (as RDAs) (IOM, 1997, 1998, 2000b, 2001, 2002) with the exception of calcium (as AI) (See box, pp. 4-5).

[6]Food supply data represent minerals for which food composition is available.

Calcium

Unlike most of the other minerals, calcium requirements are set at Adequate Intakes (AI) rather than EARs. This decision was based on concerns related to balance studies and lack of agreement between observational and experimental studies as well as lack of longitudinal data. The recommended AI represents an approximation of the calcium intake that, in the judgment of the DRI committee, would appear to be sufficient to maintain calcium nutriture while recognizing that lower intakes may be adequate for some (IOM, 1997). Calcium is essential for the formation of bones and teeth, and requirements are highest during adolescence, later adult years (51+ years), pregnancy, and lactation.

Calcium is very important from a public health perspective because inadequate intakes of this mineral may increase the risk for osteoporosis, a condition in which decreased bone mass weakens bones and leads to fractures. The prevalence of osteoporosis increases with age (Ross, 1996) and is more common in women than men.

The amount of calcium available in the food supply has shifted over the years. Calcium levels dropped from 770 mg per capita per day in 1909 to 690 mg per capita per day in 1916, primarily because of decreased use of whole milk. Calcium levels increased by 57 percent between 1916 and 1946 when calcium reached a peak value of 1,080 mg per capita per day. This peak was caused by an increase in the use of whole, canned, and dried milk and cheese. From the mid-1940s to the early 1980s, calcium levels generally declined. Since then, however, levels have generally increased because of higher intakes of lowfat milk, yogurt, and cheese (table 3, fig. 37).

Animal products, particularly dairy products, have always been the predominant source of calcium in the food supply. Animal products contributed 73 percent of the calcium in 1909 and 77 percent in 2000. A shift within the dairy group decreased use of whole milk and increased use of lowfat and skim milks over the years. In 1909, whole milk accounted for 44 percent of the calcium in the food supply; it contributed only 11 percent in 2000. Even though the share of calcium contributed by lowfat and skim milks has increased, this share does not completely compensate for the calcium loss that is due to the decreased use of whole milk. The share of calcium provided by cheese was more than six times higher in 2000 at 26 percent than in 1909 at 4 percent. The vegetable group, including calcium-rich sources such as Chinese cabbage, kale, and broccoli, has been the secondary source of calcium over time. However, its share has generally declined, dropping from 10 percent in 1909 to 7 percent in 2000 (table 23, fig. 38). In 2000, grains contributed only 5 percent of calcium to the food supply.

Phosphorus

Phosphorus is a component of every cell, ranking second to calcium in abundance in human tissues. It has numerous critical functions in the body related to bone, nucleic acid, and energy metabolism. Most food sources exhibit good phosphorus bioavailability; therefore, dietary deficiencies of the nutrient are unlikely to develop.

Figure 37. Calcium and phosphorus in the U.S. food supply, per capita per day, 1909-2000

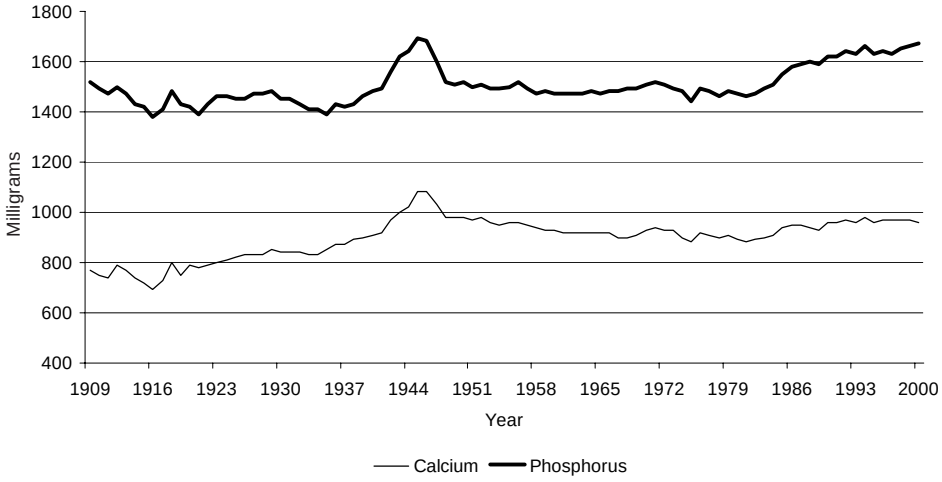
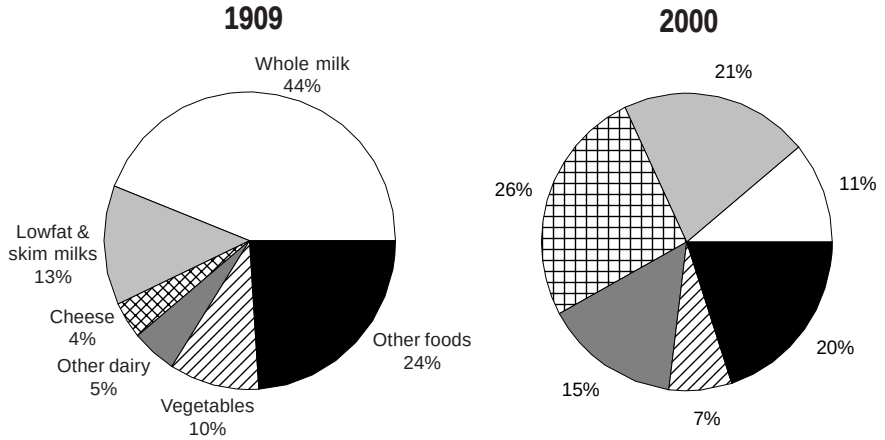


Figure 38. Sources of calcium in the U.S. food supply



Phosphorus levels in the food supply fluctuated between 1909 and 1941. Lower levels of phosphorus were due to the decline in use of the grain and meat, poultry, and fish groups, especially in the mid-1930s. Phosphorus levels increased to 1,690 mg in 1945, the highest level of the series. The increased use of dairy products during WWII accounted for this high level. From 1947 to 1982, phosphorus levels generally decreased. However, since 1982, phosphorus levels have fluctuated but mainly increased steadily, reflecting the increased use of dairy (especially cheese) and grain products. In 2000, phosphorus was almost at its peak level at 1,670 mg per capita per day (fig. 37).

In 1909, foods from plant sources contributed 47 percent of the phosphorus in the food supply, while foods from animal sources contributed 53 percent. In 2000, those shares had shifted to 39 percent from plant sources and 61 percent from animal sources. In 1909, the grain and dairy groups each contributed more than one-fourth and the meat, poultry, and

fish group, more than one-fifth of the total phosphorus in the food supply. With the decline in consumption of grain products from 1909 to the 1960s, the share of phosphorus contributed by this group decreased by over one-half: from 29 to 15 percent. In 2000, the phosphorus share from grain products was 19 percent. Since the mid-1960s, the phosphorus contribution from the dairy group has been higher than previous years of the series, at more than one-third until 1998 when contributions were at one-third. The share of phosphorus from the meat, poultry, and fish group generally remained stable since the mid-1970s to 2000, about 25 percent. Over the series, the vegetable group has provided an important, but not major, source of phosphorus, with contributions ranging from 12 percent in 1909 to 8 percent in 2000 (table 24, fig. 39).

Magnesium

More than half the magnesium in the human body is found in bones, and most of the rest is found in intracellular fluid. Magnesium functions as an activator of many enzyme systems in the body (Mahan & Escott-Stump, 1996). Magnesium levels have fluctuated somewhat over the series, with the 2000 level of 380 mg per capita per day somewhat lower than the 1909 level of 390 mg per capita per day. Generally, magnesium levels are related to the use of grain products, dairy foods, or vegetables or their combined use. The lower magnesium levels from the mid-1950s through the early 1980s were due to a general decrease in the use of grain products (table 3, fig. 40).

Several shifts have occurred in the sources of magnesium over the years. In 1909, foods originating from plants accounted for 77 percent of the total supply of magnesium, with grains being the primary source. In the mid-1960s, that percentage dropped to 65; by 2000 it had increased to 71 percent due to increased use of grain products since the 1960s. The miscellaneous group, which includes spices, is also an important (but concentrated) source, providing 14 percent of the magnesium in the food supply in 2000 (table 25).

Iron

Iron is found in all body cells, and as a component of hemoglobin in blood and myoglobin in muscles, iron carries oxygen. Iron deficiency anemia is the most common nutritional deficiency in the United States: infants, adolescents, and women of childbearing age are at greatest risk for developing anemia. The higher need for iron, which is due to rapid growth or excessive blood loss during menstruation, usually cannot be compensated by dietary intake alone (Mahan & Escott-Stump, 1996).

The amount of iron in the food supply was relatively high in 1909 at 14.3 mg per capita per day, compared with lower levels during the following 30 years. From 1909 through 1942, iron levels basically declined. In 1940, the National Research Council of the National Academy of Sciences endorsed the addition of iron to white flour and, by 1942, the Food and Drug Administration established standards of identity for enriched flour. These standards have changed over the years; consequently, iron levels have shifted (table 3, fig. 41). Even before the enrichment of white flour, the predominant source of

Figure 39. Sources of phosphorus in the U.S. food supply

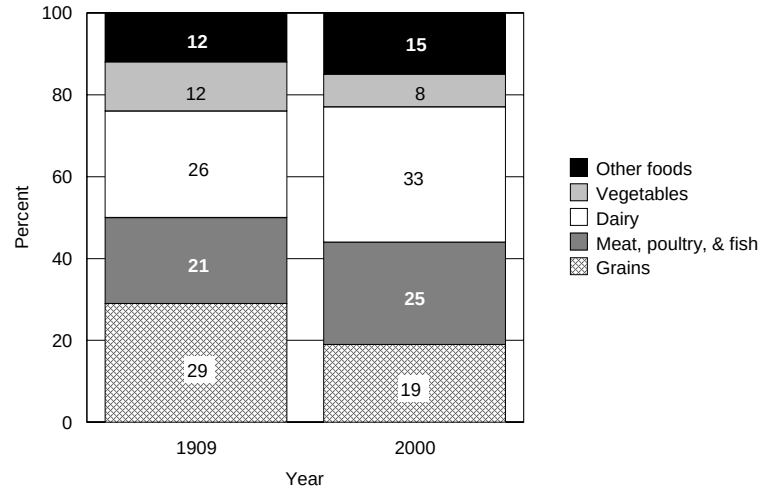


Figure 40. Magnesium in the U.S. food supply, per capita per day, 1909-2000

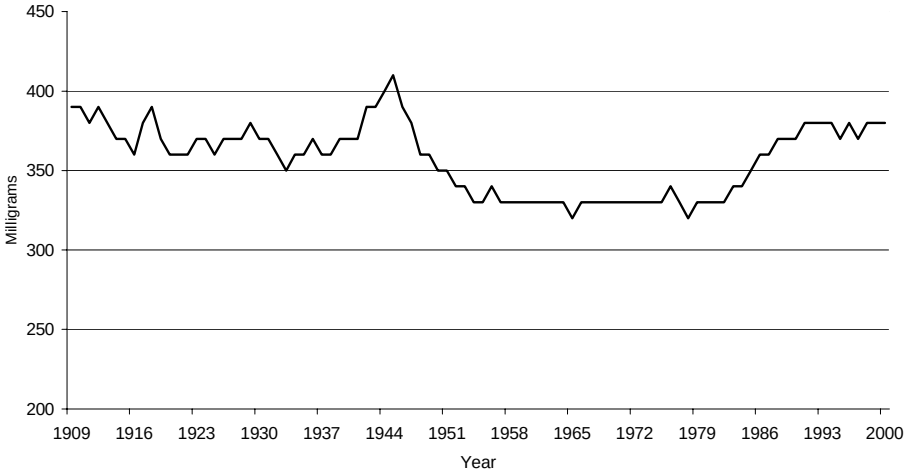
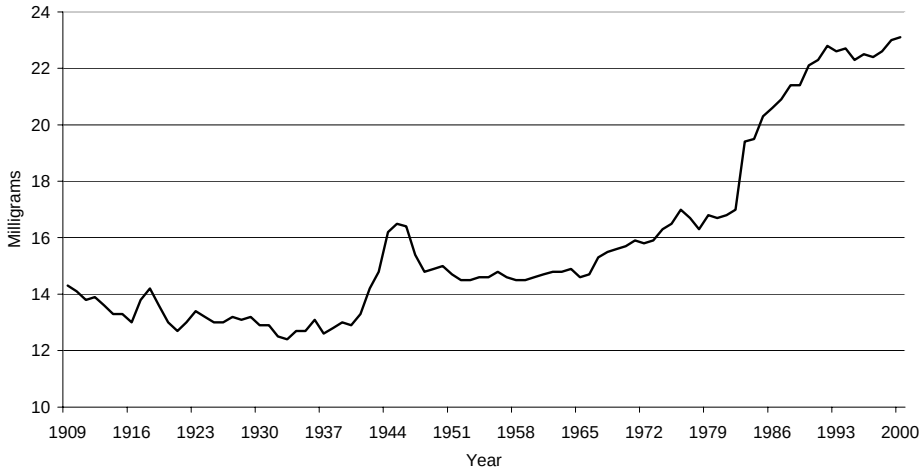


Figure 41. Iron in the U.S. food supply, per capita per day, 1909-2000



iron was grain products. In 1909, grain products provided 34 percent of the iron in the food supply. Because the use of grain products dropped, grain's iron share declined after 1909 until flour enrichment began in the 1940s. With the enrichment of flour and fortification of breakfast cereals, iron levels added to the food supply increased in spite of the drop in the consumption of grain products. In the 1980s, grain use increased and generally increased through the 1990s. In 2000, grain products accounted for 52 percent of the iron in the food supply. After grain products, the meat, poultry, and fish group (particularly red meats) has ranked second as a source of iron through most of the years. This group provided 21 percent of the iron available in 1909 and 16 percent in 2000.

The vegetable group, specifically white potatoes, was an important source in earlier years. However, the share of iron from vegetables declined as the use of white potatoes declined. In 1909, the vegetable group furnished 19 percent of the iron in the food supply, but in 2000, that share dropped by almost half to 10 percent. Another important source of iron is the legumes, nuts, and soy group. In 1909, this group provided 13 percent of the iron in the food supply; however, the iron share decreased to 8 percent in 2000, reflecting the decreased consumption of home-produced dried beans and peas (table 26, fig. 42).

Zinc

Zinc is involved in the metabolism of carbohydrates, lipids, proteins, and nucleic acids. It plays an important role in wound healing, blood formation, and general growth and maintenance of all body tissues. Severe zinc deficiency is uncommon in the United States. However, mild or moderate deficiency has been found in older adults, the physically active, and individuals subject to stress, such as after surgery (Mahan & Escott-Stump, 1996; Zizza & Gerrior, 1995).

The level of zinc in the food supply reached its highest level in 1992 at 15.2 mg (table 3). From 1909, the per capita zinc level decreased to a low value of 11.0 mg in 1935, attributed to decreases in use of the meat, poultry, and fish group and the grain group. Since then, zinc levels have fluctuated, with levels consistently higher since the mid-1980s because of an increase in the use of grains, including fortified breakfast cereals, especially since 1974 (table 3, fig. 43).

Animal products contributed 60 percent of the total supply of zinc in 1909 and 57 percent in 2000. Over time, the meat, poultry, and fish group has been the primary source of zinc in the food supply, contributing over 40 percent in the early part of the 20th century and 38 percent in 2000. The grain group, which was the second most important source of zinc in earlier years, contributed 24 percent of the zinc in 1909. In the mid-1960s, with the drop in the use of grain products, the dairy group replaced the grain group as the secondary source of zinc, providing 20 percent of the zinc in the food supply. With fortification of ready-to-eat breakfast cereals with zinc in 1974, the zinc contributions from grains increased to 20 percent. This share increased to 26 percent in 2000. Over the later part of the series, fruits and vegetables have provided a stable source of zinc at about 7 percent (table 27, fig. 44).

Figure 42. Sources of iron in the U.S. food supply

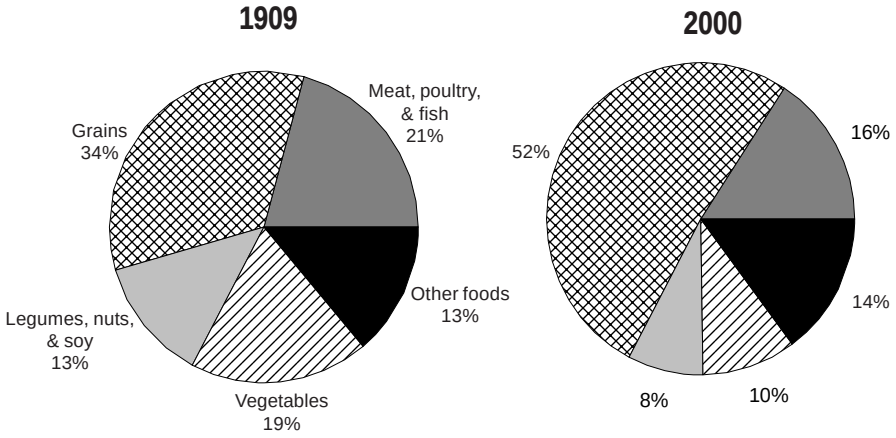


Figure 43. Zinc in the U.S. food supply, per capita per day, 1909-2000

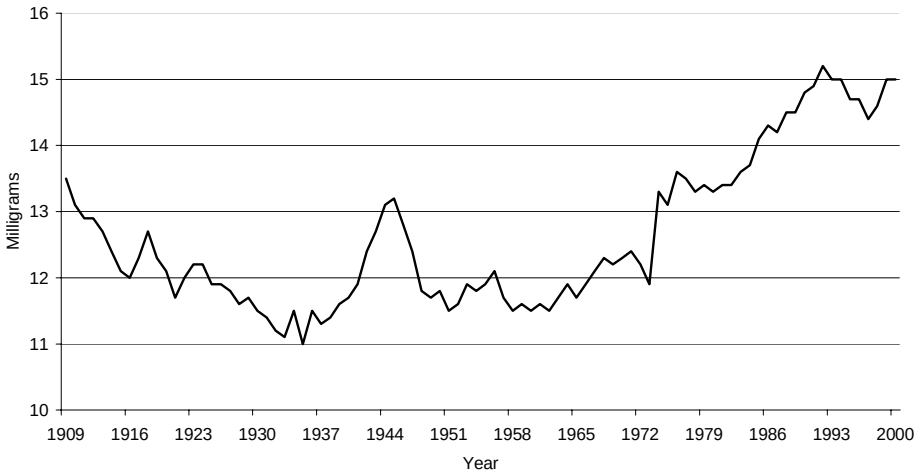
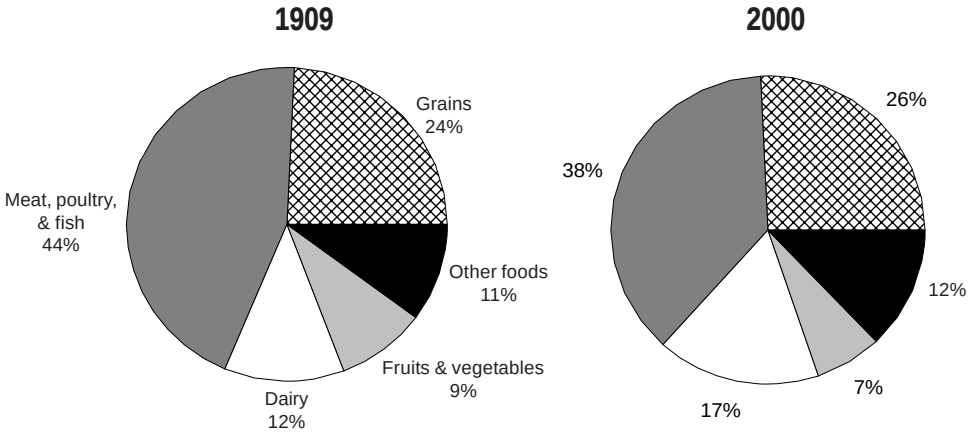


Figure 44. Sources of zinc in the U.S. food supply



Copper

Copper is found in all body tissues and works with iron to form hemoglobin. Copper also helps maintain healthy bones, blood vessels, and nerves. The level of copper in the food supply fluctuated somewhat over the series from a high in 2000 at 1.9 mg to 1.7 mg per capita per day in 1909 (table 3).

Foods of plant origin are the primary source of copper. In 1909, plant sources provided 78 percent of the copper in the food supply, and in 2000, the share increased to 83 percent. In 1909, the grain group was the leading source of copper, providing 33 percent to the food supply. Vegetables were the second leading contributor of copper providing 20 percent in 1909, largely because white potatoes alone accounted for 10 percent. Because of the decline in white potato consumption, white potatoes accounted for only 5 percent of the available copper in 2000. In 2000, grains remained the leading contributor of copper at 22 percent, followed very closely by the legumes, nuts, and soy group at 21 percent. The share of copper from the legumes, nuts, and soy group has doubled since 1909, reflecting increased consumption of these foods, particularly soy products, over time. The contributions from the meat, poultry, and fish group decreased from 19 percent in 1909 to 14 percent in 2000 (table 28). Over the series, the contribution from the miscellaneous group has tripled from 5 percent in 1909 to 15 percent in 2000.

Potassium

Potassium aids in muscle contraction and in maintaining fluid and electrolyte balance in body cells. Potassium functions in nerve impulses as well as in carbohydrate and protein metabolism. Healthy people do not normally develop a potassium deficiency. During the earlier years and the WWII years of the series, potassium levels were generally higher in the food supply. This was due to the high use of dairy products and vegetables. From the peak level of 4,130 mg for potassium per capita per day in 1945, values primarily fluctuated but were mainly on the decline. Values have dropped 390 mg for potassium per capita per day between 1945 and 2000 when the level was at 3,740 mg for potassium per capita per day. However, there has been a general increase of the potassium level since the mid-1980s, primarily because of an increase in fruit use (table 3, fig. 45).

Foods from plants have been the primary sources of potassium. In 1909, these foods provided 70 percent of the potassium in the food supply. Even though the percentage decreased over the years, foods from plants still provided 64 percent in 2000. This decrease in the contribution by foods from plant sources is attributed to the decline in the consumption of vegetables, particularly white potatoes. In the early years of the series, vegetables contributed 34 percent of the potassium in the food supply, with white potatoes alone contributing 21 percent. By 2000, the share from potatoes had dropped by almost one-half, and vegetable contributions dropped overall to 25 percent of the potassium in the food supply. On the other hand, the contribution from fruit has generally increased over time, from 8 percent in the early 1900s to 11 percent in 2000. The share of potassium provided by the dairy group increased somewhat from 16 percent in 1909 to 18 percent in 2000;

Figure 45. Potassium in the U.S. food supply, per capita per day, 1909-2000

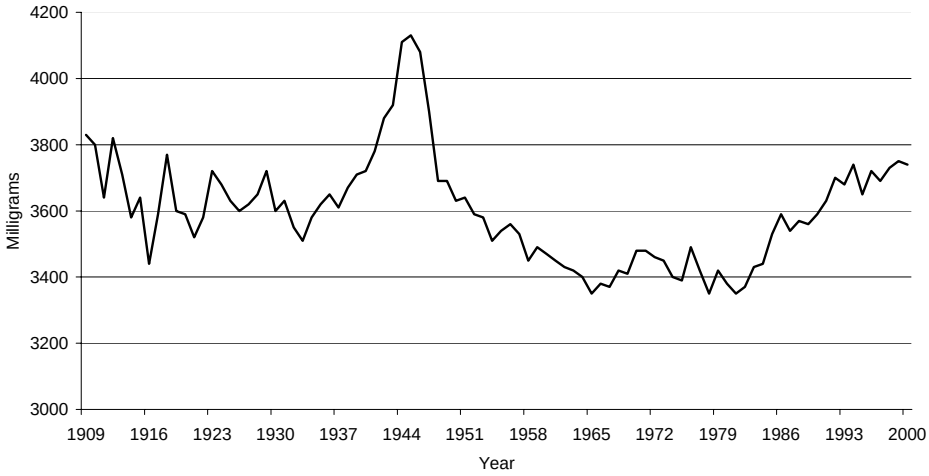
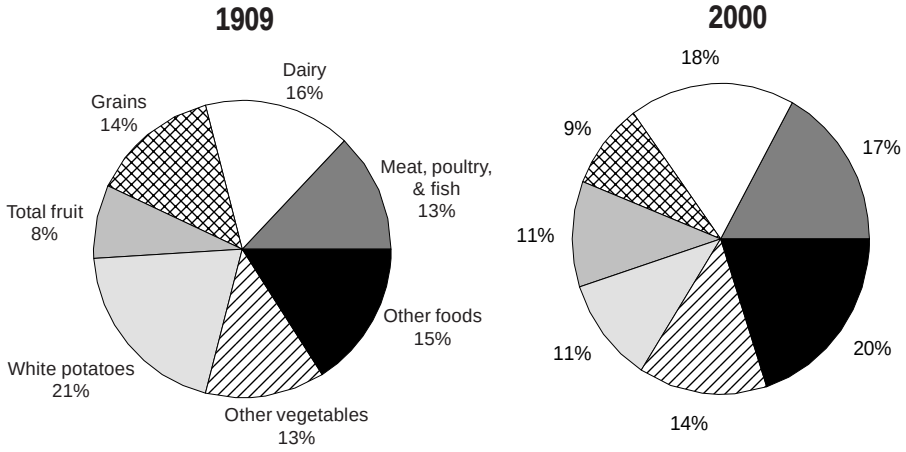


Figure 46. Sources of potassium in the U.S. food supply



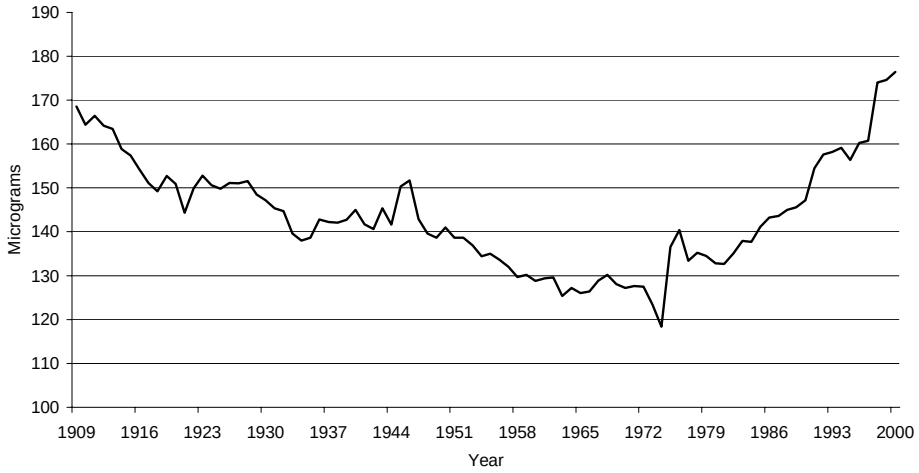
whereas, that provided by the meat, poultry, and fish group increased from 13 to 17 percent, respectively, during this period. However, the share from grains decreased from 14 percent in the early 1900s to 9 percent in 2000. Over the series, the leading source of potassium has been the vegetable group, followed by the dairy and the meat, poultry, and fish groups (table 29, fig. 46).

Selenium

Selenium is a micronutrient with antioxidant properties. Like vitamin E, it protects cells from oxidative damage. Deficiency is rare in humans. Selenium is found in most foods, but the primary sources include meats, seafood, and grains.

Substantial fluctuations in selenium levels have occurred in the food supply. Selenium levels decreased from 169 µg in 1909 to 124 µg per capita per day in 1973. From that time, levels generally rose and in 2000 reached its highest level of the series at 176 µg per capita per day (table 3, fig. 47).

Figure 47. Selenium in the U.S. food supply, per capita per day, 1909-2000



Grains have always been the primary source of selenium in the food supply, although contributions have decreased from over three-fifths of the total in 1909 to slightly more than two-fifths in 2000. Dairy products and the meat, poultry, and fish group were the secondary sources of selenium in the first part of the food supply series, but since the 1960s, the meat, poultry, and fish group has taken the lead as the secondary source. The meat, poultry, and fish contributions increased from 17 percent in 1965 to about 28 percent in 2000; whereas, contributions from the dairy group dropped from 16 to 11 percent during this period. Another important contributor of selenium has been eggs. However, selenium contribution from eggs has fluctuated over the series. This contribution increased from 7 percent in 1909 to 11 percent in the early 1960s, then declined to about 6 percent in 2000, a similar share to that in 1909. Over the series, vegetable sources have been the key contributor to selenium because of high levels from grain products. However, with the decrease in grain consumption and the increase in consumption of meat, poultry, and fish over the years, plant source contributions decreased from 71 percent in 1909 to 55 percent in 2000 (table 30).

Sodium

Sodium, a major cation, regulates extracellular fluid and plasma volume. It also aids in conduction of nerve impulses and muscle contractions. Excessive sodium intake is more of a concern than is a deficiency of intake. Sodium is found in all foods, except fruit.

The amount of sodium available in the food supply has generally increased over the years. Sodium levels increased from 940 mg in 1909 to 1,330 mg per capita per day in 2000. Higher sodium levels in the later years of the series were due to the increased consumption of cheese and processed vegetables. With the exception of these vegetables, food supply sodium estimates do not account for sodium added to food commodities through processing and manufacturing. Thus, sodium figures in this report are underestimated (table 3, fig. 48).

Figure 48. Sodium in the U.S. food supply, per capita per day, 1909-2000

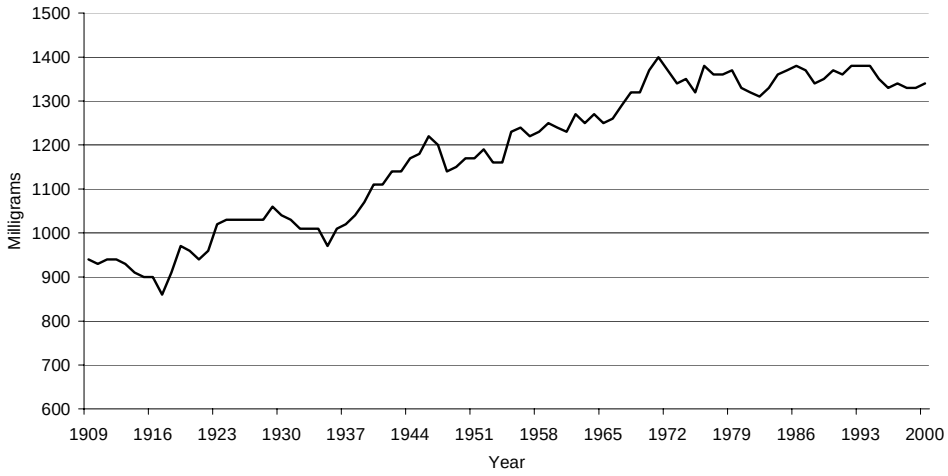
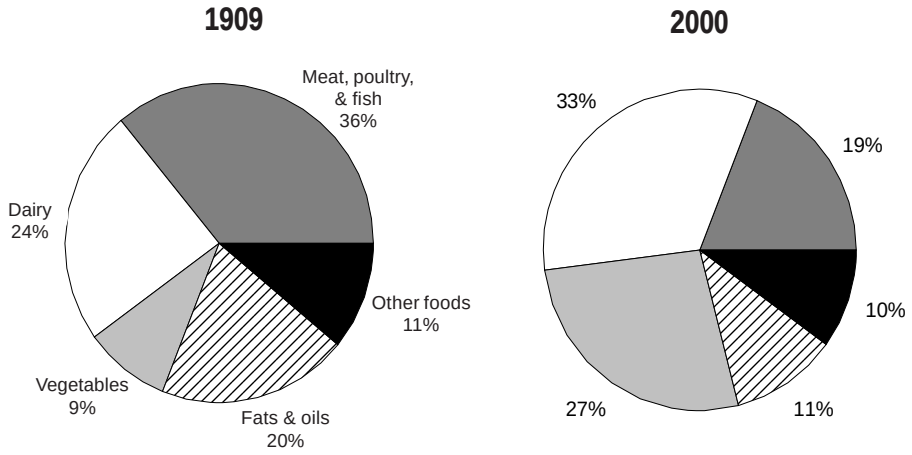


Figure 49. Sources of sodium in the U.S. food supply



The meat, poultry, and fish group; dairy group; and vegetable group each account for significant contributions of sodium to the food supply. The meat, poultry, and fish group provided more than one-third of the total sodium in 1909, the largest share for any group at that time. The dairy group was the second leading source, providing about one-fourth. Over the series, the dairy group has become the primary contributor of sodium, mainly due to cheese consumption, providing nearly one-third in 2000. From the early years of the series to the 1950s, sodium contributions from processed vegetables doubled. Since then, these contributions, especially tomatoes, have increased, such that in 2000, vegetables contributed 27 percent of the total sodium in the food supply, almost a threefold increase from the 9-percent contribution of 1909 (table 31, fig. 49).

Food Supply Pyramid Serving Estimates and Trends, 1970-2000 (selected years)

Table 32 shows Pyramid serving estimates and trends for selected years beginning with 1970. From 1970 to 2000, daily servings available for consumption increased for each of the five major Pyramid food groups, except for the milk group. Servings from the grains group increased over one-third, those from the meat and beans group increased by 13 percent, those from the vegetable group increased by 12 percent, and those from the fruit group by 18 percent.

While servings of fluid milk (mainly whole milk) and frozen dairy products declined by one-half serving or by about one-third, cheese servings increased to one-half serving per day from a much smaller serving in 1970. This increased cheese serving is associated with the use of pizza (i.e., mozzarella) and Mexican dishes (i.e., Colby). Servings of grain subgroups increased across the board, reflecting 2.5 more grain servings in 2000 than in 1970. This is due to the availability of more wheat-based products, as well as pasta flour, corn-based products (i.e., tortillas), rice, and a variety of ready-to-eat cereals. Availability of rice and ready-to-eat cereals each doubled, and corn tripled during this period. The increase in meat servings by about one-half serving daily is mainly attributed to the increased use of poultry and somewhat by a slight increase in legumes, nuts, and soy products since 1970. The increased availability of both of these subgroups more than compensated for the decrease in red meat and egg use during the past 30 years. Servings from the vegetable group increased by about one-half serving or 12 percent; mostly due to the increased use of potatoes as fries and chips and the introduction of a number of green leafy vegetables into the food supply series (see Methods section). Servings from the fruit group increased by one-fourth serving due to a slight increase in the availability of both citrus and non-citrus fruits in 2000 from 1970.

Despite the increases in Pyramid servings estimates from 1970 to 2000, those for fruit (as well as those for milk products) did not meet the current minimum daily serving recommendation of the Food Guide Pyramid. The food supply provided 1.3 servings per day per person of fresh and processed fruit and fruit juices, less than half the 3 fruit servings per day recommended by the Pyramid for a suggested diet of 2,200 calories. However, the mix of fruit, about half citrus and half non-citrus is fairly evenly divided as suggested by the Food Guide Pyramid (USDA, 1996). Likewise, the food supply failed to provide enough milk products on a per capita basis by about one-half cup.

For a point of comparison in this report, the number of Pyramid servings for each of the five major Pyramid food groups is compared to the sample diet for a day of 2,200 calories (USDA, 1996). This diet plan is suggested for older children, teen girls, active women, and most men and thus is a good starting point for making such a comparison (USDA & DHHS, 2000). While the number of servings for the grain group aligned with serving recommendations for a 2,200-calorie diet (table 33), the availability of whole grains within this group

in the food supply fell short of the current Food Guide Pyramid recommendation of at least 1 serving daily. Food supply servings for vegetables were close to recommendations, but the availability and consumption of vegetables tended to be concentrated in a small number of foods as seen by the servings estimates of potatoes (frozen, fresh, and chips) and other vegetables. Legumes can also be considered a vegetable contributor, but servings are usually somewhat limited in the food supply (0.3 to 0.4 servings), and only a slight increase was seen from 1970 to 2000. The food supply provided about 3.6 servings or about 7 ounces of meat or meat alternates in 2000. This amount meets the higher recommendation of the Food Guide Pyramid and is slightly less than a one-half serving increase from 1970. Although the serving contributions from poultry almost doubled since 1970, red meat was the main contributor of the total meat servings throughout this period. Servings from eggs decreased slightly, while that for fish remained the same during this period.

What Do These Data Tell Us?

Since the release of the Dietary Guidelines in 1980 and the Food Guide Pyramid in 1992, the U.S. food supply has changed. In part, this change reflects the introduction of new foods and the increased availability of others. But also, the food industry has responded to dietary guidance and consumer demand for healthier foods. Consistent with the Dietary Guidelines of 2000 (USDA & DHHS, 2000) and previous Federal nutrition policy of the 1980s and 1990s, the 1970 to 2000 marketplace saw an increase in the amounts and variety of available grain products, vegetables, fruits, leaner meats, and lowfat dairy products. Despite increased consumer awareness of nutrition and more healthful food options, the availability of caloric sweeteners and fats and oils in the food supply (see section on Food Trends) also increased to record-high amounts during that period. Additionally, the Pyramid serving estimates show that:

- Milk servings are consistent with the decreased demand for milk products by consumers, but consumers' preference for lowfat milks and pizza cheeses has increased.
- Fruit servings are low. While the food supply provides a wide variety of fruits, fruit availability on a per capita basis does not support Food Guide Pyramid recommendations.
- Vegetable servings meet current recommendations, but the availability and consumption of vegetables tend to be concentrated in a small number of foods as seen by the servings estimates of potatoes (frozen, fresh, and chips) and other vegetables (lettuce and onions).
- Grain servings are consistent with the increased availability of a wide variety of grains such as more wheat-based products, pasta, corn-based products (i.e., tortillas), rice, and a variety of ready-to-eat cereals.
- Meat servings meet current recommendations and reflect the increased availability of poultry servings and the slight decrease in egg servings.

TABLE NOTES FOR REPORT TABLES

Although estimates for each set of tables have been calculated for every year from 1909 through 2000, space limitations only allow the printing of yearly data for the table that includes nutrients per capita per day. For other tables, selected periods, 1909-19 and 1950-59, for example, are used to represent average estimates for years prior to 1970.

Nutrients per capita per day in the U.S. food supply

Nutrient estimates are based on Economic Research Service (ERS) estimates of per capita quantities of food available for consumption (retail weight), on imputed consumption data for foods no longer reported by ERS, and on USDA's estimates of quantities of produce from home gardens. No deduction is made in food supply estimates for loss of foods or nutrients in further processing, in marketing, or in the home. Data include estimates for iron, thiamin, riboflavin, niacin, vitamin A, vitamin B_6, vitamin B_{12}, folate, vitamin C, and zinc added by enrichment and fortification. However, these fortification data are limited and included only when reliable data sources are available.

Nutrient contributions from major food groups to the U.S. food supply, selected years

Components may not add to 100 because of rounding.

- **Other dairy products:** Includes cream; canned, evaporated, and dry milks; whey; ice cream and other frozen desserts; and yogurt.

- **Lard and beef tallow:** Excludes use in margarine and shortening.

- **Miscellaneous:** Includes coffee, tea, and chocolate liquor equivalent of cocoa beans, spices, and fortification not assigned to a specific food group.

Foods per capita per year by major food groups in the U.S. food supply

To determine nutrient estimates from the major commodity groups and the percentage contribution by nutrients for each of these groups, CNPP adapted data on pounds of food per capita per year by major food groups in the U.S. food supply. The data were adapted from ERS's series "Food Consumption, Prices, and Expenditures" (Putnam & Allshouse, 1999). Data include USDA estimates of fruits and vegetables from home gardens and imputed consumption data for foods no longer reported by ERS.

Pounds of most foods are totaled on the basis of their retail weights to achieve consistency in aggregating different foods. Summing dissimilar forms of foods—such as liquids, solids, and concentrated products—makes it difficult to interpret changes in these data. Because of increased processing of foods over the years, pounds of food measured in equivalent weights are more appropriate for analyses of food trends.

Totals for other milk products, total dairy products, and total sugars and sweeteners are measured in equivalent weights. However, caution must be used in interpreting the pounds per capita for other foods in this report to avoid misleading implications from either their levels or trends.

- **Meat:** Reported as fresh retail-cut equivalent, which includes all meat cuts obtained from a carcass and trimmed for retail sale. Includes game, organ meats, and fat cuts of pork.

- **Poultry:** Reported as ready-to-cook weight. Ready-to-cook poultry weight is the entire dressed bird, which includes the bones, skin, fat, liver, heart, gizzard, and neck. Includes game birds.

- **Fish:** Reported on edible-weight basis, which excludes such offal as bones, viscera, and shells. Includes game fish.

- **Eggs**: Reported as shell-equivalent weight, which includes shell eggs and the approximate shell-egg-equivalent of dried and frozen eggs.

- **Other dairy products:** Includes creams, evaporated and condensed milks (canned and bulk), dry milk, whey, yogurt, sour cream, eggnog, and ice cream and frozen desserts.

Reported as calcium-equivalent weight, which is the amount of fluid whole cow's milk that has the same quantity of calcium as other milk products. For example, the calcium equivalent of 1.5 pounds of cheddar cheese is calculated as follows:

1. Derive calcium conversion factor.

$$\frac{\text{calcium in 1 pound cheddar cheese}}{\text{calcium in 1 pound fluid milk}} = \frac{3{,}275 \text{ mg}}{560 \text{ mg}} = 5.85$$

2. Multiply amount of cheddar cheese by calcium conversion factor.

1.5 pounds x 5.85 = 8.78 pounds

- **Total dairy products:** Reported as calcium-equivalent weight.

- **Total grain products:** Includes wheat flour, rye flour, rice, corn flour, corn meal, hominy and corn grits, oat products, barley products, and ready-to-cook and ready-to-eat breakfast cereals.

- **Lard and beef tallow:** Excludes use in margarine and shortening.

- **Total fruits:** Reported as product weight except for concentrated juices, which are on a single-strength basis.

- **Total other fresh vegetables:** Includes dark-green and deep-yellow types, tomatoes, and others.

- **Miscellaneous:** Includes instant and regular coffee reported on roasted basis; tea reported as leaf equivalent; cocoa reported as chocolate liquor equivalent of cocoa beans, which is what remains after cocoa beans have been roasted and hulled; and spices.

GLOSSARY

ARS	Agricultural Research Service
CNPP	Center for Nutrition Policy and Promotion
DRI	Dietary Reference Intake
ERS	Economic Research Service
FDA	Food and Drug Administration
FNB	Food and Nutrition Board
IOM	Institute of Medicine
NDL	Nutrient Data Laboratory
PDS	Primary Data Set
RDA	Recommended Dietary Allowances
RTE	Ready-to-eat
USDA	U.S. Department of Agriculture
WWII	World War II

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Table 1. Food Energy and Macronutrients per Capita per Day in the U.S. Food Supply, 1909-2000

Year	Kilocalories (kcal)	Carbohydrate (g)	Fiber (g)	Protein (g)	Fat (g)	Saturated fatty acids (g)	Monounsaturated fatty acids (g)	Polyunsaturated fatty acids (g)	Cholesterol (mg)
1909-19	3400	486	29	96	120	50	47	13	440
1920-29	3400	478	27	92	127	54	49	15	470
1930-39	3300	451	26	89	129	55	50	15	450
1940-49	3300	430	25	98	138	56	54	18	510
1950-59	3100	390	20	92	138	55	55	19	500
1960-69	3100	382	19	93	143	54	56	22	470
1970	3300	389	19	96	151	53	61	26	470
1971	3300	390	19	97	152	53	61	26	470
1972	3200	385	19	96	152	53	61	27	460
1973	3200	390	19	94	147	50	59	27	430
1974	3200	381	19	94	149	51	60	27	440
1975	3100	382	19	92	144	49	57	27	420
1976	3300	394	19	96	150	50	60	29	430
1977	3200	393	19	95	147	50	59	28	430
1978	3200	386	19	94	148	50	60	29	430
1979	3200	392	19	95	150	50	61	30	430
1980	3200	392	19	94	151	51	61	30	430
1981	3200	391	19	94	151	50	61	30	420
1982	3200	391	19	94	151	50	61	30	420
1983	3300	395	20	96	155	51	62	31	420
1984	3300	400	20	97	157	52	64	31	420
1985	3500	415	21	100	162	54	66	32	430
1986	3500	420	21	101	161	54	66	32	420
1987	3500	432	21	102	159	53	65	32	420
1988	3500	439	22	103	160	52	65	33	420
1989	3500	435	22	102	155	51	64	32	410
1990	3600	448	22	104	157	51	65	32	400
1991	3500	450	23	104	154	50	65	33	400
1992	3600	459	23	106	158	51	67	33	400
1993	3700	467	23	106	161	52	69	34	400
1994	3700	475	23	108	159	51	68	33	410
1995	3700	473	23	106	156	50	66	32	400
1996	3700	484	23	107	154	49	66	32	400
1997	3700	488	23	107	153	49	65	32	400
1998	3700	488	24	108	156	50	66	32	410
1999	3800	492	24	109	161	51	69	34	420
2000	3900	490	24	110	170	54	72	36	430

Table 1a. Fatty Acids, per capita per day in the U.S. food supply, 1980-2000

Year	Saturated							
	Butyric	Caprioic	Caprylic	Capric	Lauric	Myristic	Palmitic	Stearic
				Grams				
1980	1.016	0.561	0.340	0.866	1.087	4.633	30.195	15.014
1981	1.008	0.555	0.337	0.857	1.076	4.599	29.995	14.946
1982	1.018	0.559	0.338	0.853	1.061	4.589	29.636	14.758
1983	1.048	0.574	0.344	0.873	1.058	4.711	30.361	15.116
1984	1.062	0.581	0.353	0.884	1.105	4.783	30.780	15.492
1985	1.079	0.588	0.361	0.895	1.160	4.892	31.500	15.934
1986	1.070	0.584	0.406	0.921	1.460	4.924	31.122	15.650
1987	1.074	0.584	0.395	0.907	1.381	4.804	30.449	15.180
1988	1.047	0.565	0.372	0.874	1.239	4.671	30.613	15.159
1989	1.027	0.552	0.361	0.851	1.172	4.525	29.776	14.712
1990	1.016	0.546	0.399	0.870	1.434	4.565	29.793	14.861
1991	1.010	0.544	0.423	0.885	1.608	4.607	30.010	15.096
1992	1.011	0.544	0.461	0.914	1.843	4.742	30.731	15.471
1993	1.011	0.544	0.456	0.909	1.818	4.720	30.947	15.727
1994	1.014	0.540	0.403	0.866	1.450	4.610	30.647	15.633
1995	0.997	0.530	0.403	0.858	1.475	4.564	30.148	15.287
1996	0.992	0.525	0.390	0.843	1.394	4.512	29.833	15.151
1997	0.991	0.525	0.395	0.845	1.418	4.460	29.464	14.774
1998	1.001	0.533	0.432	0.883	1.686	4.641	30.064	15.196
1999	1.028	0.545	0.420	0.886	1.577	4.717	31.011	15.686
2000	1.032	0.549	0.469	0.926	1.876	4.878	32.168	16.308

Year	Monounsaturated			
	Palmitoleic	Oleic	Gadoleic	Eurcic
		Grams		
1980	3.284	56.003	0.341	0.073
1981	3.260	56.159	0.338	0.078
1982	3.185	55.776	0.332	0.072
1983	3.273	56.963	0.336	0.073
1984	3.293	58.396	0.340	0.082
1985	3.358	59.933	0.348	0.086
1986	3.275	59.906	0.340	0.083
1987	3.170	59.201	0.339	0.087
1988	3.147	59.881	0.347	0.081
1989	3.047	58.317	0.347	0.087
1990	3.000	60.162	0.345	0.094
1991	2.981	61.542	0.353	0.095
1992	3.064	63.021	0.366	0.096
1993	3.034	64.759	0.359	0.087
1994	3.090	64.192	0.405	0.118
1995	3.078	62.299	0.396	0.110
1996	3.055	61.638	0.390	0.120
1997	3.004	61.279	0.400	0.128
1998	3.098	62.114	0.408	0.134
1999	3.204	64.462	0.425	0.118
2000	3.235	67.902	0.431	0.118

Table 1a. Fatty Acids, per capita per day in the U.S. food supply, 1980-2000 (Cont'd)

Year	Polyunsaturated						
	Linoleic	Linolenic	Parinaric	Arachidonic	Timnodonic	Clupanodonic	Docosahexaernoic
				Grams			
1980	25.749	2.464	0.002	0.216	0.036	0.011	0.060
1981	26.125	2.510	0.003	0.214	0.036	0.011	0.060
1982	26.131	2.494	0.003	0.208	0.037	0.011	0.061
1983	27.060	2.602	0.003	0.211	0.037	0.011	0.062
1984	27.067	2.577	0.003	0.212	0.039	0.012	0.066
1985	27.862	2.642	0.003	0.212	0.040	0.012	0.066
1986	27.901	2.563	0.003	0.209	0.037	0.012	0.067
1987	28.126	2.590	0.003	0.211	0.036	0.013	0.067
1988	29.054	2.574	0.003	0.213	0.035	0.013	0.067
1989	28.166	2.443	0.003	0.212	0.036	0.014	0.071
1990	29.251	2.587	0.003	0.210	0.036	0.014	0.070
1991	29.567	2.645	0.003	0.211	0.038	0.015	0.073
1992	30.096	2.701	0.003	0.215	0.038	0.015	0.075
1993	30.369	2.719	0.003	0.214	0.037	0.015	0.074
1994	29.393	2.831	0.004	0.217	0.043	0.016	0.083
1995	29.123	2.797	0.004	0.216	0.045	0.016	0.084
1996	28.597	2.734	0.004	0.213	0.045	0.016	0.084
1997	29.147	2.857	0.004	0.211	0.044	0.016	0.083
1998	28.878	2.884	0.004	0.216	0.043	0.015	0.082
1999	30.080	3.046	0.004	0.223	0.045	0.016	0.086
2000	32.698	3.243	0.005	0.225	0.047	0.016	0.090

Table 1b. Individual Fatty Acids in the U.S. Food Supply

Saturated	Monounsaturated	Polyunsaturated*
Butyric (4:0)	Palmitoleic (16:1)	Linoleic (18:2)
Caprioic (6:0)	Oleic (18:1)	Linolenic (18:3)
Caprylic (8:0)	Gadoleic (20:1)	Parinaric (18:4)
Lauric (12:0)	Erucic (22:1)	Arachidonic (20:4)
Myristic (14:0)		Eicosapentaenoic** (20:5)
Palmitic (16:0)		Clupandonic (22:5)
Stearic (18:0)		Docosahexaenoic (22:5)

*Omega-3 fatty acids are linolenic, parinaric, eicosapentaenoic, and docosahexaenoic; omega-6 fatty acids are linoleic and arachidonic acids.
**The common name is timnodonic.

Table 1c. Levels of Eicosapentaenoic Acid (EPA) and Docosahexaenoic Acid (DHA) in the U.S. Food Supply for Fish, 1980-2000

Year	Fish quantity (lb)	EPA (grams)	DHA (grams)
1980-84	12.8	0.024	0.029
1985-89	14.8	0.027	0.033
1990-94	14.9	0.030	0.038
1994-2000	14.8	0.037	0.047

Table 1d. Ratio of omega-6 (n-6) to omega-3 (n-3) fatty acids in the U.S. food supply, 1980-2000

Year	n-6 (grams)	n-3 (grams)	n-6:n-3
1980-84	26.641	2.633	10.1:1
1985-89	28.434	2.669	10.7:1
1990-94	29.757	2.784	10.7:1
1994-2000	29.971	3.061	9.7:1

Table 2. Vitamins per Capita per Day in the U.S. Food Supply, 1909-2000

Year	Vitamin A* RE (µg RE)	Vitamin A RAE (µg RAE)	Carotene (µg)	Vitamin E (mg ATE)	Ascorbic Acid (mg)	Thiamin (mg)	Riboflavin (mg)	Niacin (mg)	Vitamin B_6 (mg)	Folate (µg)	Folate, DFE (µg)	Vitamin B_{12} (µg)
1909-19	1200	1040	430	7.7	95	1.5	1.8	17	2.1	314	313	7.9
1920-29	1260	1090	470	8.5	100	1.5	1.8	17	2.0	309	308	7.6
1930-39	1280	1070	510	9.2	104	1.4	1.8	16	1.9	314	313	7.2
1940-49	1420	1210	510	10.3	112	1.9	2.3	19	2.0	329	328	8.7
1950-59	1310	1140	410	10.6	97	1.8	2.3	19	1.8	300	299	8.7
1960-69	1320	1150	390	11.7	92	1.9	2.2	20	1.8	286	285	8.9
1970	1460	1220	480	13.3	104	1.9	2.3	21	2.0	290	290	9.5
1971	1470	1230	490	13.0	105	2.0	2.3	22	2.0	292	292	9.5
1972	1490	1230	520	13.4	106	2.0	2.3	22	2.0	291	290	9.4
1973	1480	1200	550	13.9	104	2.0	2.2	22	1.9	296	296	8.9
1974	1600	1260	580	13.8	111	2.3	2.6	25	2.1	323	347	9.1
1975	1590	1260	590	14.0	115	2.3	2.6	26	2.0	334	360	8.6
1976	1620	1280	590	14.4	116	2.4	2.7	27	2.1	339	365	8.9
1977	1560	1240	550	14.0	115	2.4	2.6	26	2.1	339	364	8.8
1978	1540	1220	550	14.3	111	2.3	2.6	26	2.0	327	353	8.5
1979	1580	1230	580	14.4	112	2.4	2.6	27	2.1	339	366	8.2
1980	1560	1220	570	14.3	115	2.4	2.6	27	2.1	333	360	8.2
1981	1560	1220	580	14.5	113	2.4	2.6	27	2.1	333	360	8.3
1982	1560	1200	600	14.8	114	2.4	2.6	27	2.1	339	366	7.9
1983	1550	1200	570	15.1	118	2.4	2.6	27	2.1	343	370	8.2
1984	1580	1220	600	15.5	116	2.5	2.7	28	2.1	337	365	8.3
1985	1570	1210	600	16.0	117	2.5	2.7	28	2.2	353	382	8.3
1986	1560	1210	580	16.2	121	2.6	2.7	29	2.2	356	386	8.2
1987	1580	1220	610	16.2	117	2.6	2.8	29	2.3	347	378	8.2
1988	1530	1180	570	16.8	119	2.7	2.8	30	2.3	362	393	8.1
1989	1580	1210	610	16.5	119	2.7	2.8	30	2.3	356	388	8.1
1990	1610	1220	630	16.8	115	2.8	2.9	30	2.3	363	397	8.0
1991	1570	1190	600	17.2	118	2.8	2.9	31	2.4	372	406	7.9
1992	1630	1230	640	17.4	126	2.9	2.9	31	2.4	387	422	7.9
1993	1680	1260	710	17.9	126	2.9	2.9	31	2.4	382	409	7.8
1994	1750	1290	780	17.4	128	2.9	2.9	31	2.4	384	412	8.0
1995	1680	1260	720	16.8	126	2.9	2.8	31	2.4	375	401	8.0
1996	1720	1280	780	16.6	133	2.9	2.9	31	2.4	377	405	8.0
1997	1750	1290	820	16.8	128	2.9	2.8	31	2.4	371	399	7.8
1998	1710	1270	780	16.9	130	2.9	2.8	31	2.4	685	896	8.0
1999	1690	1260	730	17.6	129	2.9	2.9	32	2.5	692	905	8.0
2000	1670	1260	720	19.2	126	2.9	2.9	32	2.4	691	907	8.3

Table 3. Minerals per Capita per Day in the U.S. Food Supply, 1909-2000

Year	Calcium (mg)	Phosphorus (mg)	Magnesium (mg)	Iron (mg)	Zinc (mg)	Copper (mg)	Potassium (mg)	Sodium (mg)	Selenium (µg)
1909-19	750	1450	380	13.7	12.6	1.7	3670	920	159.1
1920-29	810	1450	370	13.1	11.9	1.7	3630	1010	150.0
1930-39	860	1430	360	12.8	11.4	1.6	3610	1020	142.4
1940-49	1000	1580	380	14.9	12.4	1.7	3890	1160	143.7
1950-59	960	1500	340	14.6	11.8	1.5	3550	1200	135.0
1960-69	910	1480	330	14.9	11.8	1.5	3410	1270	128.0
1970	930	1510	330	15.6	12.3	1.5	3480	1360	127.0
1971	940	1520	330	15.8	12.4	1.5	3480	1390	127.5
1972	930	1510	330	15.7	12.2	1.6	3460	1370	127.5
1973	940	1490	330	15.9	11.9	1.6	3450	1340	123.6
1974	910	1490	330	16.3	13.4	1.6	3410	1350	118.6
1975	890	1450	330	16.4	13.1	1.6	3400	1320	136.9
1976	910	1490	330	16.9	13.6	1.6	3480	1370	140.1
1977	900	1480	330	16.7	13.5	1.6	3410	1350	133.2
1978	890	1460	320	16.3	13.3	1.6	3340	1350	135.0
1979	900	1480	330	16.8	13.4	1.6	3410	1360	134.3
1980	890	1470	320	16.7	13.3	1.6	3370	1330	132.6
1981	880	1460	330	16.8	13.3	1.6	3340	1310	132.6
1982	890	1460	330	17.0	13.3	1.6	3360	1300	134.9
1983	900	1490	340	19.4	13.6	1.7	3420	1320	137.6
1984	910	1510	340	19.5	13.7	1.7	3440	1350	137.7
1985	940	1550	350	20.3	14.1	1.7	3530	1370	14.01
1986	950	1580	360	20.6	14.3	1.7	3580	1370	143.1
1987	940	1580	360	20.9	14.2	1.7	3530	1360	143.4
1988	940	1600	370	21.4	14.5	1.8	3570	1340	145.0
1989	930	1590	360	21.4	14.5	1.8	3560	1340	145.6
1990	960	1620	370	22.1	14.8	1.8	3590	1360	147.2
1991	950	1620	370	22.3	14.9	1.8	3630	1350	154.4
1992	970	1640	380	22.7	15.2	1.9	3690	1370	157.5
1993	960	1630	380	22.6	15.0	1.9	3680	1370	158.1
1994	980	1660	380	22.7	15.0	1.9	3730	1360	159.0
1995	960	1630	370	22.3	14.7	1.8	3650	1340	156.3
1996	970	1640	380	22.5	14.7	1.9	3720	1330	160.2
1997	970	1630	370	22.4	14.4	1.8	3690	1330	160.6
1998	970	1650	380	22.6	14.6	1.9	3730	1320	173.9
1999	960	1660	380	23.0	15.0	1.9	3750	1330	174.5
2000	960	1670	380	23.1	14.9	1.9	3740	1330	176.3

Table 4. Food Energy Contributed from Major Food Groups to the U.S. Food Supply, Selected Years

Year	Meat, poultry, & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
						Percent						
1909-19	13.3	0.9	0.6	14.7	5.1	0.8	0.6	2.1	8.5	1.8	2.3	37.5
1920-29	12.9	0.9	0.5	14.4	5.6	0.7	0.7	2.8	9.7	1.9	2.4	32.0
1930-39	12.5	0.9	0.5	13.9	5.9	0.6	0.8	3.3	10.6	1.8	2.8	29.3
1940-49	14.6	1.2	0.5	16.4	7.2	0.5	1.0	3.7	12.4	2.1	3.1	26.5
1950-59	15.5	1.5	0.5	17.5	7.1	0.4	1.3	3.5	12.5	2.4	3.0	22.6
1960-69	16.2	2.2	0.5	18.9	6.1	0.7	1.6	3.1	11.6	2.1	3.0	21.1
1970	16.3	2.7	0.5	19.5	5.2	1.2	1.8	2.8	10.9	2.0	2.9	19.4
1971	16.7	2.7	0.5	19.9	5.0	1.2	1.9	2.8	10.9	2.0	3.0	19.3
1972	16.1	2.8	0.6	19.5	4.9	1.3	2.0	2.7	11.0	1.9	3.1	18.6
1973	14.9	2.7	0.6	18.2	4.7	1.3	2.1	2.8	10.9	1.9	3.3	19.3
1974	16.0	2.7	0.6	19.3	4.5	1.4	2.2	2.7	10.7	1.8	3.0	19.3
1975	14.7	2.7	0.5	17.9	4.4	1.3	2.2	2.7	10.6	1.8	3.4	20.1
1976	15.0	2.8	0.6	18.3	4.1	1.6	2.3	2.6	10.6	1.7	3.2	19.9
1977	15.0	2.8	0.6	18.4	3.9	1.6	2.4	2.6	10.6	1.7	3.1	19.8
1978	14.6	3.0	0.6	18.2	3.8	1.7	2.5	2.6	10.6	1.8	3.1	19.7
1979	14.3	3.1	0.6	18.0	3.6	1.7	2.5	2.6	10.4	1.8	3.3	20.2
1980	14.5	3.2	0.6	18.2	3.4	1.7	2.6	2.6	10.3	1.7	2.9	20.3
1981	14.2	3.3	0.6	18.1	3.2	1.8	2.6	2.5	10.2	1.7	3.1	20.4
1982	13.4	3.3	0.5	17.3	3.1	1.8	2.9	2.6	10.3	1.7	3.3	20.8
1983	13.7	3.2	0.6	17.5	3.0	1.8	2.9	2.6	10.3	1.6	3.3	20.4
1984	13.4	3.3	0.6	17.2	2.9	1.8	3.0	2.7	10.3	1.6	3.1	20.3
1985	13.0	3.3	0.6	16.8	2.7	1.9	3.0	2.7	10.2	1.5	3.3	20.7
1986	12.5	3.4	0.6	16.5	2.5	1.9	3.1	2.8	10.3	1.5	3.2	21.3
1987	11.9	3.6	0.6	16.1	2.4	2.0	3.2	2.7	10.3	1.5	3.0	22.2
1988	12.0	3.6	0.6	16.2	2.2	2.0	3.0	2.6	9.9	1.5	3.3	22.6
1989	11.8	3.8	0.6	16.2	2.1	2.1	3.1	2.6	9.9	1.4	3.2	22.7
1990	11.1	3.9	0.6	15.5	1.9	2.2	3.1	2.7	9.8	1.4	3.1	23.3
1991	9.9	4.0	0.6	14.5	1.8	2.2	3.1	2.6	9.8	1.4	3.2	23.3
1992	9.8	4.1	0.6	14.5	1.7	2.2	3.2	2.6	9.7	1.4	3.2	23.3
1993	9.4	4.2	0.6	14.1	1.6	2.1	3.1	2.6	9.4	1.3	3.0	23.5
1994	9.5	4.2	0.6	14.2	1.6	2.1	3.1	2.7	9.5	1.3	3.0	23.7
1995	9.6	4.2	0.6	14.4	1.5	2.1	3.2	2.6	9.4	1.3	3.0	23.7
1996	9.3	4.2	0.6	14.1	1.5	2.1	3.2	2.6	9.4	1.3	2.9	24.3
1997	9.1	4.2	0.6	13.9	1.4	2.0	3.3	2.7	9.4	1.3	3.0	24.4
1998	9.4	4.2	0.5	14.1	1.4	2.0	3.3	2.7	9.3	1.3	3.1	24.0
1999	9.4	4.3	0.5	14.3	1.4	2.0	3.3	2.5	9.2	1.4	3.2	23.7
2000	9.1	4.3	0.6	14.0	1.4	1.9	3.3	2.5	9.1	1.4	3.0	23.6

Table 4. Food Energy Contributed from Major Food Groups to the U.S. Food Supply, Selected Years—Continued

	Fruits			Vegetables					Fats and Oils							
Year	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Marg-arine	Short-ening	Lard & beef tallow	Salad, cooking & other edible oils	Total	Sugars & sweeteners	Miscel-laneous
								Percent								
1909-19	0.2	2.7	2.9	3.9	0.9	0.4	1.3	6.4	4.4	0.6	3.1	3.8	0.7	12.6	12.9	0.3
1920-29	0.3	2.8	3.1	3.4	0.9	0.4	1.4	6.0	4.6	0.7	2.7	4.2	1.4	13.5	16.4	0.5
1930-39	0.5	2.7	3.2	3.1	0.9	0.4	1.5	5.9	4.8	0.7	3.4	4.2	2.0	15.1	16.8	0.6
1940-49	0.7	2.5	3.2	2.8	0.8	0.5	1.6	5.7	3.4	1.1	3.2	4.3	2.3	14.3	15.7	0.6
1950-59	0.8	2.4	3.1	2.6	0.5	0.5	1.5	5.1	2.5	2.3	3.8	3.8	3.4	15.9	17.3	0.6
1960-69	0.7	2.1	2.8	2.7	0.4	0.5	1.4	5.0	1.8	2.8	5.1	2.2	4.8	16.8	18.0	0.7
1970	0.9	2.0	2.9	2.8	0.4	0.6	1.5	5.2	1.5	3.0	5.8	1.5	6.0	17.8	18.6	0.8
1971	0.9	2.0	3.0	2.6	0.4	0.6	1.4	5.1	1.4	3.0	5.7	1.4	6.0	17.5	18.7	0.8
1972	1.0	1.9	2.9	2.7	0.4	0.6	1.4	5.1	1.4	3.1	6.0	1.2	6.4	18.1	19.0	0.8
1973	1.0	2.0	3.0	2.7	0.4	0.6	1.5	5.1	1.3	3.1	5.9	1.1	6.9	18.3	19.3	0.8
1974	1.0	2.0	3.0	2.6	0.4	0.6	1.5	5.1	1.3	3.1	5.8	1.1	6.9	18.1	18.8	0.8
1975	1.1	2.1	3.2	2.8	0.4	0.6	1.5	5.4	1.3	3.1	5.9	1.1	7.0	18.4	18.5	0.7
1976	1.1	2.0	3.1	2.7	0.4	0.6	1.5	5.2	1.2	3.3	5.9	0.9	7.2	18.5	18.6	0.8
1977	1.1	2.1	3.2	2.7	0.3	0.6	1.5	5.1	1.2	3.2	5.9	0.8	7.2	18.2	19.1	0.7
1978	1.0	2.2	3.2	2.6	0.4	0.6	1.5	5.0	1.2	3.2	6.2	0.8	7.6	18.9	18.9	0.7
1979	1.0	2.2	3.2	2.6	0.4	0.6	1.5	5.1	1.2	3.1	6.2	0.9	7.5	19.0	18.5	0.7
1980	1.1	2.2	3.3	2.6	0.4	0.6	1.4	4.9	1.2	3.1	6.1	1.2	7.6	19.2	18.4	0.7
1981	1.0	2.2	3.2	2.6	0.4	0.6	1.4	4.9	1.2	3.1	6.3	1.1	7.8	19.4	18.3	0.8
1982	1.0	2.3	3.3	2.6	0.4	0.6	1.4	4.9	1.2	3.0	6.4	1.2	7.8	19.6	18.0	0.7
1983	1.2	2.3	3.4	2.6	0.4	0.6	1.4	4.9	1.3	2.8	6.2	1.3	8.3	19.9	17.9	0.8
1984	0.9	2.4	3.3	2.6	0.4	0.6	1.4	5.0	1.3	2.8	7.0	1.2	8.0	20.3	18.0	0.8
1985	1.0	2.3	3.3	2.5	0.4	0.6	1.4	4.8	1.3	2.8	7.3	1.2	8.0	20.5	18.0	0.8
1986	1.0	2.4	3.4	2.6	0.3	0.6	1.3	4.8	1.2	2.9	7.0	1.1	8.4	20.6	17.6	0.8
1987	1.0	2.5	3.5	2.5	0.3	0.6	1.2	4.6	1.2	2.7	6.7	0.8	8.6	20.0	18.1	0.8
1988	1.0	2.4	3.4	2.4	0.3	0.5	1.2	4.5	1.1	2.6	6.7	0.7	8.8	19.9	18.0	0.8
1989	0.9	2.5	3.4	2.5	0.3	0.6	1.3	4.7	1.1	2.6	6.8	0.6	8.2	19.3	18.4	0.8
1990	0.8	2.4	3.2	2.4	0.3	0.6	1.3	4.6	1.1	2.7	6.9	0.7	8.4	19.8	18.5	0.9
1991	0.8	2.3	3.1	2.6	0.3	0.6	1.3	4.8	1.1	2.6	6.9	0.9	8.8	20.3	18.7	0.9
1992	1.0	2.4	3.4	2.4	0.3	0.6	1.3	4.6	1.1	2.7	6.8	1.1	8.9	20.5	18.7	0.9
1993	1.0	2.3	3.3	2.5	0.4	0.6	1.2	4.7	1.1	2.7	7.5	1.0	8.8	21.0	18.7	0.8
1994	1.0	2.3	3.3	2.5	0.4	0.6	1.3	4.8	1.1	2.4	7.1	1.3	8.5	20.4	19.0	0.8
1995	1.0	2.3	3.3	2.5	0.4	0.6	1.3	4.8	1.1	2.2	6.7	1.3	8.7	20.0	19.4	0.7
1996	1.1	2.3	3.4	2.6	0.4	0.6	1.2	4.9	1.0	2.2	6.5	1.4	8.3	19.5	19.4	0.8
1997	1.0	2.3	3.3	2.5	0.4	0.6	1.3	4.8	1.0	2.0	6.1	1.2	9.1	19.4	19.7	0.8
1998	1.1	2.2	3.3	2.5	0.4	0.6	1.2	4.7	1.1	2.0	6.1	1.5	8.8	19.5	19.7	0.9
1999	1.0	2.3	3.3	2.4	0.4	0.6	1.3	4.6	1.1	1.9	6.1	1.6	9.2	19.9	19.6	0.8
2000	0.9	2.2	3.1	2.4	0.4	0.5	1.2	4.5	1.1	1.9	6.6	1.7	10.5	21.7	18.9	0.8

Table 5. Carbohydrate Contributed from Major Food Groups to the U.S. Food Supply, Selected Years

Year	Meat, poultry, & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
						Percent						
1909-19	0.1	0.0	0.0	0.1	2.5	0.7	0.0	0.7	4.0	0.1	2.1	54.8
1920-29	0.1	0.0	0.0	0.1	2.9	0.6	0.0	0.9	4.4	0.1	1.9	47.5
1930-39	0.1	0.0	0.0	0.1	3.1	0.6	0.0	1.2	4.9	0.1	2.3	44.7
1940-49	0.1	0.0	0.0	0.1	4.0	0.5	0.0	1.7	6.3	0.1	2.4	42.6
1950-59	0.1	0.0	0.0	0.1	4.3	0.5	0.1	2.1	6.9	0.2	2.3	38.0
1960-69	0.1	0.0	0.0	0.1	3.8	0.7	0.1	2.1	6.7	0.1	2.2	36.2
1970	0.1	0.0	0.0	0.1	3.3	1.1	0.1	2.1	6.6	0.1	2.2	33.9
1971	0.1	0.0	0.0	0.1	3.3	1.2	0.1	2.1	6.6	0.1	2.1	33.8
1972	0.1	0.0	0.0	0.1	3.2	1.2	0.1	2.1	6.6	0.1	2.1	32.8
1973	0.1	0.0	0.0	0.1	3.0	1.2	0.1	2.1	6.5	0.1	2.4	33.2
1974	0.1	0.0	0.0	0.1	2.9	1.3	0.1	2.0	6.4	0.1	2.1	33.5
1975	0.1	0.0	0.0	0.1	2.8	1.2	0.1	2.0	6.1	0.1	2.3	34.3
1976	0.1	0.0	0.0	0.1	2.7	1.4	0.1	2.0	6.2	0.1	2.2	34.2
1977	0.1	0.0	0.0	0.1	2.5	1.5	0.1	2.0	6.1	0.1	2.2	33.8
1978	0.1	0.0	0.0	0.1	2.5	1.5	0.1	2.0	6.2	0.1	2.1	34.0
1979	0.1	0.0	0.0	0.1	2.4	1.5	0.1	2.1	6.1	0.1	2.3	34.7
1980	0.1	0.0	0.0	0.1	2.2	1.6	0.1	2.0	6.0	0.1	2.0	34.9
1981	0.1	0.0	0.0	0.1	2.1	1.6	0.1	1.9	5.8	0.1	2.1	35.3
1982	0.1	0.0	0.0	0.1	2.0	1.6	0.1	1.9	5.7	0.1	2.3	35.8
1983	0.1	0.0	0.0	0.1	1.9	1.7	0.2	2.0	5.8	0.1	2.3	35.3
1984	0.1	0.0	0.0	0.1	1.9	1.7	0.2	2.1	5.8	0.1	2.0	35.2
1985	0.1	0.0	0.0	0.1	1.8	1.7	0.2	2.0	5.7	0.1	2.3	35.7
1986	0.1	0.0	0.0	0.1	1.7	1.8	0.2	2.1	5.7	0.1	2.2	36.6
1987	0.1	0.0	0.0	0.1	1.5	1.7	0.2	2.0	5.5	0.1	1.9	37.5
1988	0.0	0.0	0.0	0.1	1.4	1.7	0.2	2.0	5.3	0.1	2.2	37.9
1989	0.1	0.0	0.0	0.1	1.3	1.9	0.2	1.9	5.3	0.1	2.0	37.7
1990	0.0	0.0	0.0	0.1	1.2	1.9	0.2	2.0	5.3	0.1	2.0	38.3
1991	0.0	0.0	0.0	0.1	1.1	1.9	0.2	1.9	5.2	0.1	2.1	38.0
1992	0.0	0.0	0.0	0.1	1.1	1.9	0.2	1.9	5.1	0.1	2.1	37.9
1993	0.0	0.0	0.0	0.1	1.0	1.8	0.2	1.9	4.9	0.1	2.0	38.2
1994	0.0	0.0	0.0	0.1	1.0	1.8	0.2	2.0	5.0	0.1	2.1	38.2
1995	0.0	0.0	0.0	0.1	0.9	1.8	0.2	1.9	4.8	0.1	2.1	38.0
1996	0.0	0.0	0.0	0.1	0.9	1.8	0.2	1.9	4.7	0.1	2.0	38.4
1997	0.0	0.0	0.0	0.1	0.9	1.8	0.2	1.9	4.7	0.1	2.0	38.4
1998	0.0	0.0	0.0	0.1	0.9	1.8	0.2	1.8	4.6	0.1	2.1	38.1
1999	0.0	0.0	0.0	0.1	0.9	1.7	0.2	1.7	4.5	0.1	2.1	38.0
2000	0.0	0.0	0.0	0.1	0.9	1.7	0.2	1.7	4.5	0.1	2.1	38.8

Table 5. Carbohydrate Contributed from Major Food Groups to the U.S. Food Supply, Selected Years—Continued

	Fruits			Vegetables					Fats and Oils							
Year	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Marg-arine	Short-ening	Lard & beef tallow	Salad, cooking & other edible oils	Total	Sugars & sweeteners	Miscel-laneous
								Percent								
1909-19	0.4	4.8	5.2	6.1	1.4	0.6	1.9	10.1	0.0	0.0	0.0	0.0	0.0	0.0	23.2	0.5
1920-29	0.6	5.1	5.6	5.4	1.4	0.6	2.2	9.6	0.0	0.0	0.0	0.0	0.0	0.0	30.2	0.7
1930-39	0.9	4.9	5.8	5.0	1.5	0.7	2.4	9.6	0.0	0.0	0.0	0.0	0.0	0.0	31.7	0.9
1940-49	1.4	4.8	6.2	4.9	1.3	0.9	2.7	9.8	0.0	0.0	0.0	0.0	0.0	0.0	31.4	1.0
1950-59	1.5	4.8	6.3	4.8	0.9	0.9	2.6	9.3	0.0	0.0	0.0	0.0	0.0	0.0	36.0	1.0
1960-69	1.5	4.3	5.8	5.1	0.8	0.9	2.6	9.3	0.0	0.0	0.0	0.0	0.0	0.0	38.4	1.1
1970	1.8	4.2	5.9	5.2	0.7	1.1	2.7	9.7	0.0	0.0	0.0	0.0	0.0	0.0	40.2	1.2
1971	1.9	4.2	6.1	5.0	0.7	1.2	2.6	9.5	0.0	0.0	0.0	0.0	0.0	0.0	40.4	1.2
1972	2.0	3.8	5.9	5.1	0.7	1.2	2.6	9.6	0.0	0.0	0.0	0.0	0.0	0.0	41.4	1.3
1973	2.0	4.0	6.0	4.9	0.7	1.1	2.7	9.4	0.0	0.0	0.0	0.0	0.0	0.0	41.1	1.2
1974	2.1	4.1	6.2	5.0	0.8	1.2	2.7	9.6	0.0	0.0	0.0	0.0	0.0	0.0	40.8	1.2
1975	2.3	4.2	6.5	5.2	0.8	1.2	2.7	9.9	0.0	0.0	0.0	0.0	0.0	0.0	39.4	1.1
1976	2.2	4.1	6.3	5.1	0.8	1.3	2.7	9.7	0.0	0.0	0.0	0.0	0.0	0.0	39.9	1.2
1977	2.2	4.1	6.3	5.0	0.6	1.2	2.7	9.5	0.0	0.0	0.0	0.0	0.0	0.0	40.8	1.0
1978	2.0	4.4	6.4	4.9	0.7	1.1	2.7	9.4	0.0	0.0	0.0	0.0	0.0	0.0	40.7	1.1
1979	2.0	4.4	6.4	4.9	0.7	1.2	2.6	9.4	0.0	0.0	0.0	0.0	0.0	0.0	39.8	1.1
1980	2.2	4.6	6.7	4.8	0.7	1.2	2.6	9.2	0.0	0.0	0.0	0.0	0.0	0.0	39.8	1.1
1981	2.0	4.5	6.5	4.8	0.7	1.1	2.6	9.3	0.0	0.0	0.0	0.0	0.0	0.0	39.7	1.1
1982	2.0	4.6	6.7	4.8	0.7	1.2	2.5	9.2	0.0	0.0	0.0	0.0	0.0	0.0	39.0	1.1
1983	2.3	4.6	6.9	4.9	0.7	1.2	2.5	9.2	0.0	0.0	0.0	0.0	0.0	0.0	39.1	1.1
1984	1.9	4.8	6.7	4.9	0.7	1.3	2.5	9.4	0.0	0.0	0.0	0.0	0.0	0.0	39.4	1.2
1985	1.9	4.7	6.6	4.7	0.7	1.1	2.5	9.0	0.0	0.0	0.0	0.0	0.0	0.0	39.3	1.2
1986	2.1	4.7	6.8	4.8	0.6	1.1	2.4	8.9	0.0	0.0	0.0	0.0	0.0	0.0	38.3	1.2
1987	1.9	4.9	6.8	4.5	0.6	1.1	2.2	8.5	0.0	0.0	0.0	0.0	0.0	0.0	38.5	1.2
1988	1.9	4.8	6.7	4.4	0.6	1.0	2.2	8.2	0.0	0.0	0.0	0.0	0.0	0.0	38.4	1.1
1989	1.8	4.9	6.6	4.5	0.6	1.2	2.2	8.5	0.0	0.0	0.0	0.0	0.0	0.0	38.6	1.2
1990	1.5	4.6	6.1	4.2	0.6	1.2	2.2	8.2	0.0	0.0	0.0	0.0	0.0	0.0	38.6	1.3
1991	1.5	4.5	6.0	4.6	0.6	1.2	2.2	8.5	0.0	0.0	0.0	0.0	0.0	0.0	38.6	1.3
1992	1.9	4.6	6.5	4.3	0.6	1.1	2.2	8.2	0.0	0.0	0.0	0.0	0.0	0.0	38.7	1.3
1993	1.9	4.5	6.3	4.5	0.6	1.1	2.1	8.4	0.0	0.0	0.0	0.0	0.0	0.0	38.8	1.2
1994	1.9	4.4	6.3	4.4	0.7	1.1	2.1	8.4	0.0	0.0	0.0	0.0	0.0	0.0	38.8	1.1
1995	1.9	4.3	6.2	4.4	0.7	1.1	2.1	8.3	0.0	0.0	0.0	0.0	0.0	0.0	39.5	1.0
1996	2.1	4.2	6.3	4.5	0.7	1.1	2.1	8.4	0.0	0.0	0.0	0.0	0.0	0.0	38.9	1.2
1997	1.9	4.2	6.1	4.3	0.7	1.1	2.1	8.3	0.0	0.0	0.0	0.0	0.0	0.0	39.3	1.1
1998	2.0	4.2	6.2	4.2	0.7	1.1	2.1	8.1	0.0	0.0	0.0	0.0	0.0	0.0	39.5	1.2
1999	1.8	4.3	6.2	4.2	0.7	1.1	2.1	8.1	0.0	0.0	0.0	0.0	0.0	0.0	39.8	1.2
2000	1.7	4.1	5.9	4.3	0.8	1.0	2.0	8.1	0.0	0.0	0.0	0.0	0.0	0.0	39.3	1.2

Table 6. Fiber Contributed from Major Food Groups to the U.S. Food Supply, Selected Years

Year	Meat, poultry, & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
						Percent						
1909-19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.6	47.5
1920-29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7	42.5
1930-39	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.5	38.6
1940-49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.4	35.2
1950-59	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.2	0.0	13.6	32.8
1960-69	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.4	0.0	14.2	32.2
1970	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.4	0.0	14.3	30.5
1971	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.4	0.0	14.3	30.3
1972	0.0	0.0	0.0	0.0	0.4	0.1	0.0	0.0	0.5	0.0	15.0	28.6
1973	0.0	0.0	0.0	0.0	0.4	0.1	0.0	0.0	0.5	0.0	16.1	28.8
1974	0.0	0.0	0.0	0.0	0.4	0.1	0.0	0.0	0.5	0.0	14.8	29.9
1975	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.4	0.0	15.9	29.6
1976	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.5	0.0	15.7	29.6
1977	0.0	0.0	0.0	0.0	0.3	0.2	0.0	0.0	0.5	0.0	15.8	30.1
1978	0.0	0.0	0.0	0.0	0.3	0.2	0.0	0.0	0.5	0.0	15.5	30.5
1979	0.0	0.0	0.0	0.0	0.3	0.2	0.0	0.0	0.5	0.0	16.0	30.5
1980	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.4	0.0	14.5	30.9
1981	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.4	0.0	15.1	30.7
1982	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.3	0.0	16.0	30.5
1983	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.3	0.0	15.9	30.5
1984	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.4	0.0	14.4	30.9
1985	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.4	0.0	16.1	31.5
1986	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.4	0.0	15.4	32.3
1987	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.4	0.0	13.6	34.7
1988	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.3	0.0	15.1	35.2
1989	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.3	0.0	13.9	34.9
1990	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.3	0.0	14.1	35.5
1991	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.3	0.0	14.5	35.0
1992	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.3	0.0	14.4	35.0
1993	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.3	0.0	14.0	35.4
1994	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.3	0.0	14.4	35.2
1995	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.3	0.0	14.6	35.6
1996	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.3	0.0	13.8	35.4
1997	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.3	0.0	14.0	35.3
1998	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.3	0.0	15.1	34.6
1999	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.4	0.0	15.3	34.4
2000	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.4	0.0	15.0	35.1

Table 6. Fiber Contributed from Major Food Groups to the U.S. Food Supply, Selected Years—Continued

	Fruits			Vegetables					Fats and Oils							
Year	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Marg-arine	Short-ening	Lard & beef tallow	Salad, cooking & other edible oils	Total	Sugars & sweeteners	Miscel-laneous
								Percent								
1909-19	1.3	11.0	12.3	12.9	3.4	2.2	9.7	28.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4
1920-29	2.0	11.4	13.4	12.0	4.0	2.2	11.8	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
1930-39	2.9	10.8	13.7	11.0	4.5	2.5	12.6	30.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6
1940-49	4.2	10.2	14.4	10.6	4.5	3.1	13.4	31.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.2
1950-59	3.5	10.8	14.3	11.2	3.9	3.5	13.8	32.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.6
1960-69	2.9	10.0	12.9	11.5	3.7	3.5	13.6	32.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.2
1970	3.0	10.0	13.0	11.4	3.5	4.3	13.8	32.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.9
1971	3.1	10.0	13.0	10.9	3.4	4.6	13.9	32.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.1
1972	3.0	9.4	12.4	11.2	3.6	4.5	13.9	33.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2
1973	2.9	9.6	12.6	10.6	3.7	4.2	14.0	32.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.5
1974	3.0	9.8	12.8	10.5	3.8	4.4	14.1	32.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0
1975	3.2	10.2	13.3	10.8	3.7	4.5	13.9	32.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.8
1976	3.0	9.8	12.8	10.5	3.6	4.6	13.8	32.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.9
1977	2.9	10.0	12.9	10.4	3.4	4.5	14.1	32.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.2
1978	2.9	10.4	13.2	10.2	3.4	4.3	14.0	32.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3
1979	2.6	10.2	12.8	10.2	3.6	4.6	13.8	32.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.2
1980	3.0	10.6	13.5	10.3	3.5	4.4	13.9	32.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.5
1981	2.7	10.4	13.1	10.0	3.6	4.3	13.8	31.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.0
1982	2.6	10.4	12.9	9.8	3.7	4.4	13.3	31.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.9
1983	3.1	10.1	13.2	10.0	3.5	4.3	12.8	30.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.4
1984	2.5	10.6	13.1	9.9	3.7	4.6	12.9	31.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1
1985	2.3	10.0	12.3	9.4	3.5	4.2	12.5	29.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.2
1986	2.6	10.1	12.7	9.5	3.3	4.1	12.0	29.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.3
1987	2.4	10.8	13.3	9.1	3.4	4.1	11.1	27.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.3
1988	2.5	10.2	12.7	8.8	3.3	3.8	11.0	26.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7
1989	2.3	10.4	12.7	9.0	3.4	4.2	11.1	27.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5
1990	2.1	9.7	11.8	8.4	3.4	4.3	11.1	27.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1
1991	1.8	9.4	11.2	9.0	3.2	4.3	10.8	27.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.5
1992	2.4	9.6	12.0	8.6	3.4	4.1	10.8	26.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.5
1993	2.5	9.5	12.0	8.9	3.7	4.2	10.7	27.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.8
1994	2.4	9.6	12.0	8.8	4.2	4.2	10.9	28.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.0
1995	2.4	9.2	11.6	9.0	4.0	4.2	10.9	28.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.8
1996	2.5	9.2	11.7	9.1	4.2	4.1	10.5	27.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.9
1997	2.5	9.3	11.9	8.9	4.4	4.0	10.7	28.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.5
1998	2.6	9.2	11.8	8.5	4.1	4.1	10.4	27.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1
1999	2.0	9.4	11.5	8.5	4.0	4.0	10.8	27.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.2
2000	2.3	9.1	11.4	8.6	4.4	3.9	9.9	26.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.3

Table 7. Protein Contributed from Major Food Groups to the U.S. Food Supply, Selected Years

Year	Meat, poultry, & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
						Percent						
1909-19	24.3	3.1	2.6	30.0	9.1	2.5	1.4	1.5	14.5	5.2	4.9	36.7
1920-29	24.0	3.3	2.8	30.1	10.4	2.3	1.7	2.4	16.8	5.8	4.8	32.9
1930-39	23.4	3.4	2.6	29.4	11.0	2.1	2.0	3.6	18.9	5.7	5.7	30.5
1940-49	25.4	4.3	2.3	32.1	12.5	1.7	2.4	4.7	21.3	6.1	5.7	25.5
1950-59	26.7	5.0	2.8	34.5	12.6	1.2	3.5	5.6	22.9	7.0	5.4	21.6
1960-69	27.9	7.1	2.8	37.8	10.9	1.9	4.2	5.3	22.3	6.0	5.5	20.0
1970	28.6	8.3	3.0	39.9	9.3	3.0	4.7	5.0	22.0	5.6	5.4	18.6
1971	29.0	8.3	2.9	40.1	9.1	3.2	4.9	4.9	22.1	5.6	5.3	18.4
1972	28.5	8.7	3.2	40.4	8.8	3.4	5.3	4.6	22.1	5.5	5.7	17.7
1973	26.9	8.4	3.3	38.6	8.6	3.5	5.5	4.9	22.4	5.4	6.4	18.5
1974	28.8	8.5	3.1	40.3	8.1	3.5	5.7	4.3	21.6	5.3	6.0	18.2
1975	27.1	8.5	3.2	38.8	8.0	3.3	5.7	4.1	21.2	5.2	6.8	19.1
1976	27.6	8.7	3.3	39.6	7.4	3.9	5.9	4.0	21.3	4.9	6.5	18.8
1977	27.7	8.9	3.2	39.8	7.2	4.1	6.1	4.0	21.4	4.9	6.6	18.7
1978	26.9	9.4	3.5	39.7	7.0	4.1	6.5	4.0	21.6	5.1	6.5	18.7
1979	25.9	9.9	3.4	39.1	6.7	4.2	6.5	4.0	21.4	5.1	6.8	19.1
1980	26.4	10.1	3.3	39.8	6.3	4.4	6.6	3.9	21.2	5.0	6.2	19.2
1981	26.3	10.4	3.3	40.0	6.1	4.4	6.8	3.6	20.8	4.9	6.4	19.2
1982	25.3	10.4	3.2	38.9	5.8	4.5	7.3	3.5	21.1	4.9	6.9	19.5
1983	25.7	10.4	3.4	39.5	5.5	4.5	7.4	3.6	21.1	4.8	6.9	19.2
1984	25.6	10.6	3.5	39.6	5.4	4.5	7.6	3.8	21.3	4.7	6.4	19.2
1985	25.1	10.6	3.5	39.2	5.1	4.6	7.7	3.7	21.1	4.5	6.9	19.7
1986	24.9	10.9	3.6	39.4	4.7	4.8	7.7	3.9	21.1	4.4	6.6	19.9
1987	24.0	11.6	3.7	39.3	4.5	4.9	8.0	3.8	21.1	4.4	6.1	20.8
1988	24.0	11.7	3.5	39.2	4.2	4.9	7.7	3.6	20.5	4.2	6.7	21.2
1989	23.6	12.2	3.8	39.5	3.9	5.3	7.7	3.5	20.4	4.1	6.3	21.1
1990	22.7	12.6	3.6	38.8	3.6	5.4	7.8	3.8	20.7	4.0	6.3	21.9
1991	22.6	12.9	3.6	39.0	3.4	5.5	7.9	3.6	20.4	3.9	6.5	21.6
1992	22.5	13.2	3.5	39.2	3.2	5.4	7.9	3.7	20.2	3.9	6.5	21.7
1993	22.1	13.5	3.5	39.1	3.1	5.4	7.9	3.6	20.0	3.9	6.3	22.2
1994	22.2	13.4	3.5	39.1	3.0	5.3	7.9	4.1	20.2	3.8	6.3	22.1
1995	22.7	13.5	3.5	39.6	2.9	5.4	8.0	3.7	20.0	3.8	6.2	22.0
1996	21.9	13.6	3.4	38.9	2.8	5.3	8.1	3.8	20.0	3.8	6.1	22.6
1997	21.6	13.6	3.4	38.6	2.7	5.3	8.2	3.8	20.0	3.9	6.2	22.7
1998	22.1	13.6	3.3	39.0	2.7	5.2	8.2	3.8	19.8	3.9	6.4	22.3
1999	22.1	14.0	3.4	39.5	2.6	5.1	8.4	3.4	19.5	4.0	6.5	22.0
2000	22.3	13.9	3.5	39.7	2.6	5.0	8.5	3.4	19.4	4.0	6.3	22.2

Table 7. Protein Contributed from Major Food Groups to the U.S. Food Supply, Selected Years—Continued

	Fruits			Vegetables					Fats and Oils							
Year	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Marg-arine	Short-ening	Lard & beef tallow	Salad, cooking & other edible oils	Total	Sugars & sweeteners	Miscel-laneous
								Percent								
1909-19	0.2	0.9	1.1	3.6	0.6	0.5	2.1	6.8	0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.7
1920-29	0.2	1.0	1.3	3.2	0.7	0.5	2.5	6.9	0.2	0.0	0.0	0.0	0.0	0.2	0.0	1.1
1930-39	0.4	1.0	1.4	3.0	0.8	0.6	2.8	7.0	0.2	0.0	0.0	0.0	0.0	0.2	0.0	1.3
1940-49	0.5	0.9	1.4	2.5	0.7	0.6	2.6	6.4	0.1	0.0	0.0	0.0	0.0	0.2	0.0	1.4
1950-59	0.5	0.8	1.3	2.3	0.5	0.6	2.4	5.8	0.1	0.1	0.0	0.0	0.0	0.2	0.0	1.3
1960-69	0.4	0.7	1.2	2.4	0.4	0.5	2.2	5.5	0.1	0.1	0.0	0.0	0.0	0.2	0.0	1.5
1970	0.5	0.7	1.2	2.4	0.4	0.6	2.2	5.6	0.1	0.1	0.0	0.0	0.0	0.2	0.0	1.5
1971	0.5	0.7	1.2	2.3	0.4	0.7	2.2	5.6	0.1	0.1	0.0	0.0	0.0	0.2	0.0	1.5
1972	0.6	0.6	1.2	2.4	0.4	0.7	2.2	5.6	0.1	0.1	0.0	0.0	0.0	0.2	0.0	1.7
1973	0.6	0.7	1.2	2.4	0.4	0.6	2.3	5.7	0.1	0.1	0.0	0.0	0.0	0.2	0.0	1.6
1974	0.6	0.7	1.3	2.4	0.4	0.7	2.2	5.6	0.1	0.1	0.0	0.0	0.0	0.2	0.0	1.6
1975	0.6	0.7	1.4	2.5	0.4	0.7	2.3	5.9	0.1	0.1	0.0	0.0	0.0	0.2	0.0	1.4
1976	0.6	0.7	1.3	2.5	0.4	0.7	2.2	5.7	0.0	0.1	0.0	0.0	0.0	0.2	0.0	1.6
1977	0.6	0.7	1.3	2.4	0.4	0.7	2.2	5.7	0.0	0.1	0.0	0.0	0.0	0.2	0.0	1.4
1978	0.6	0.7	1.3	2.4	0.4	0.6	2.2	5.6	0.0	0.1	0.0	0.0	0.0	0.2	0.0	1.4
1979	0.6	0.7	1.3	2.4	0.4	0.7	2.2	5.7	0.1	0.1	0.0	0.0	0.0	0.2	0.0	1.4
1980	0.6	0.7	1.4	2.3	0.4	0.7	2.2	5.7	0.1	0.1	0.0	0.0	0.0	0.2	0.0	1.4
1981	0.6	0.8	1.3	2.4	0.4	0.7	2.2	5.6	0.0	0.1	0.0	0.0	0.0	0.2	0.0	1.5
1982	0.6	0.8	1.3	2.3	0.4	0.7	2.2	5.6	0.0	0.1	0.0	0.0	0.0	0.2	0.0	1.5
1983	0.7	0.8	1.4	2.4	0.4	0.7	2.1	5.5	0.1	0.1	0.0	0.0	0.0	0.2	0.0	1.6
1984	0.5	0.8	1.4	2.4	0.4	0.7	2.1	5.6	0.1	0.1	0.0	0.0	0.0	0.2	0.0	1.6
1985	0.5	0.8	1.3	2.3	0.4	0.6	2.1	5.4	0.1	0.1	0.0	0.0	0.0	0.2	0.0	1.7
1986	0.6	0.8	1.4	2.3	0.4	0.6	2.0	5.4	0.0	0.1	0.0	0.0	0.0	0.2	0.0	1.7
1987	0.6	0.8	1.4	2.3	0.4	0.6	1.9	5.2	0.0	0.1	0.0	0.0	0.0	0.2	0.0	1.7
1988	0.6	0.8	1.4	2.2	0.4	0.6	1.9	5.1	0.0	0.1	0.0	0.0	0.0	0.2	0.0	1.6
1989	0.5	0.8	1.3	2.3	0.4	0.7	1.9	5.3	0.0	0.1	0.0	0.0	0.0	0.2	0.0	1.7
1990	0.4	0.8	1.2	2.2	0.4	0.7	1.9	5.2	0.0	0.1	0.0	0.0	0.0	0.2	0.0	1.8
1991	0.4	0.8	1.2	2.3	0.4	0.7	1.9	5.3	0.0	0.1	0.0	0.0	0.0	0.2	0.0	1.8
1992	0.6	0.8	1.3	2.2	0.4	0.7	1.9	5.2	0.0	0.1	0.0	0.0	0.0	0.2	0.0	1.8
1993	0.6	0.8	1.3	2.3	0.4	0.7	1.9	5.3	0.0	0.1	0.0	0.0	0.0	0.2	0.0	1.7
1994	0.6	0.8	1.3	2.3	0.5	0.7	1.9	5.4	0.0	0.1	0.0	0.0	0.0	0.1	0.0	1.6
1995	0.6	0.7	1.3	2.3	0.5	0.7	1.9	5.4	0.0	0.1	0.0	0.0	0.0	0.1	0.0	1.5
1996	0.6	0.8	1.4	2.4	0.5	0.7	1.9	5.5	0.0	0.1	0.0	0.0	0.0	0.1	0.0	1.7
1997	0.6	0.8	1.3	2.4	0.5	0.7	1.9	5.4	0.0	0.1	0.0	0.0	0.0	0.1	0.0	1.7
1998	0.6	0.7	1.4	2.3	0.5	0.7	1.9	5.3	0.0	0.1	0.0	0.0	0.0	0.1	0.0	1.8
1999	0.5	0.8	1.3	2.2	0.5	0.6	2.0	5.4	0.0	0.1	0.0	0.0	0.0	0.1	0.0	1.7
2000	0.5	0.7	1.3	2.2	0.6	0.6	1.8	5.2	0.0	0.1	0.0	0.0	0.0	0.1	0.0	1.8

Table 8. Fat Contributed from Major Food Groups to the U.S. Food Supply, Selected Years

Year	Meat, poultry, & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
						Percent						
1909-19	32.3	1.5	0.7	34.5	8.4	0.2	1.3	4.8	14.8	3.3	2.2	4.0
1920-29	29.9	1.4	0.6	31.9	8.8	0.2	1.4	6.2	16.7	3.4	2.7	3.3
1930-39	27.3	1.4	0.5	29.3	8.8	0.2	1.6	6.6	17.2	3.1	3.0	2.8
1940-49	30.2	1.8	0.5	32.5	10.1	0.2	1.8	6.1	18.2	3.4	3.5	2.3
1950-59	30.3	2.1	0.5	32.8	9.3	0.2	2.2	4.8	16.6	3.7	3.3	1.8
1960-69	30.9	3.1	0.4	34.4	7.7	0.3	2.6	3.8	14.4	3.1	3.6	1.6
1970	30.5	3.9	0.4	34.8	6.2	0.7	2.8	3.1	12.8	2.9	3.5	1.4
1971	31.3	3.9	0.4	35.6	6.1	0.7	2.9	3.0	12.7	2.9	3.6	1.3
1972	29.9	4.1	0.4	34.3	5.9	0.8	3.1	3.0	12.8	2.8	3.7	1.2
1973	28.1	4.0	0.4	32.5	5.7	0.8	3.3	3.1	12.9	2.8	3.8	1.3
1974	29.6	4.0	0.4	33.9	5.3	0.8	3.5	3.0	12.6	2.7	3.6	1.7
1975	27.4	4.0	0.3	31.7	5.3	0.9	3.6	3.2	12.9	2.7	4.0	1.8
1976	27.9	4.1	0.4	32.3	4.9	1.0	3.7	3.0	12.6	2.5	3.6	1.7
1977	28.1	4.2	0.4	32.7	4.7	1.1	3.9	3.0	12.7	2.5	3.6	1.8
1978	26.9	4.4	0.4	31.6	4.5	1.1	4.1	3.0	12.6	2.6	3.7	1.8
1979	26.5	4.6	0.4	31.5	4.3	1.1	4.1	2.9	12.4	2.6	3.8	1.8
1980	26.9	4.6	0.3	31.8	4.0	1.2	4.1	2.9	12.2	2.5	3.3	1.8
1981	26.2	4.7	0.4	31.3	3.8	1.2	4.3	3.0	12.3	2.5	3.6	1.8
1982	24.7	4.8	0.3	29.7	3.6	1.2	4.7	3.0	12.6	2.5	3.9	1.8
1983	24.9	4.7	0.3	29.8	3.5	1.3	4.7	3.0	12.5	2.4	3.8	1.8
1984	24.1	4.7	0.3	29.2	3.3	1.2	4.8	3.1	12.4	2.3	3.8	1.8
1985	23.4	4.7	0.3	28.5	3.1	1.3	4.9	3.1	12.4	2.2	3.9	1.8
1986	22.5	4.9	0.3	27.7	3.0	1.3	5.0	3.2	12.5	2.2	3.8	1.9
1987	21.9	5.3	0.3	27.5	2.9	1.4	5.2	3.3	12.8	2.3	3.9	2.0
1988	22.1	5.3	0.3	27.7	2.7	1.4	5.0	3.2	12.4	2.2	4.0	2.1
1989	22.0	5.7	0.3	28.0	2.6	1.5	5.2	3.3	12.5	2.2	4.1	2.2
1990	20.7	5.8	0.3	26.9	2.3	1.5	5.3	3.2	12.3	2.1	3.8	2.3
1991	18.0	6.1	0.3	24.5	2.3	1.5	5.4	3.3	12.5	2.1	4.0	2.3
1992	17.7	6.3	0.3	24.3	2.2	1.5	5.4	3.2	12.3	2.1	3.8	2.5
1993	17.0	6.3	0.3	23.6	2.0	1.4	5.4	3.2	12.0	2.0	3.7	2.5
1994	17.4	6.5	0.3	24.2	2.0	1.4	5.5	3.2	12.2	2.1	3.7	2.5
1995	17.7	6.6	0.3	24.6	1.9	1.4	5.7	3.2	12.3	2.1	3.5	2.4
1996	17.5	6.7	0.3	24.5	1.9	1.4	5.9	3.3	12.5	2.1	3.6	2.5
1997	17.2	6.8	0.3	24.3	1.9	1.4	5.9	3.4	12.6	2.2	3.7	2.4
1998	17.6	6.7	0.3	24.7	1.8	1.3	5.9	3.4	12.5	2.2	3.8	2.4
1999	17.3	6.8	0.3	24.4	1.8	1.3	5.9	3.4	12.3	2.2	3.9	2.4
2000	16.2	6.5	0.3	22.9	1.7	1.2	5.7	3.2	11.8	2.1	3.5	2.2

Table 8. Fat Contributed from Major Food Groups to the U.S. Food Supply, Selected Years—Continued

	Fruits			Vegetables					Fats and Oils							
Year	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Marg-arine	Short-ening	Lard & beef tallow	Salad, cooking & other edible oils	Total	Sugars & sweeteners	Miscel-laneous
								Percent								
1909-19	0.0	0.5	0.5	0.1	0.1	0.1	0.3	0.6	14.1	1.8	9.9	11.8	2.2	39.8	0.0	0.3
1920-29	0.0	0.5	0.5	0.1	0.1	0.1	0.3	0.6	13.8	1.9	8.1	12.5	4.1	40.5	0.0	0.4
1930-39	0.0	0.4	0.5	0.1	0.1	0.1	0.3	0.6	13.8	1.9	9.9	11.8	5.6	43.0	0.0	0.5
1940-49	0.1	0.4	0.4	0.1	0.1	0.1	0.3	0.6	9.2	3.0	8.6	11.4	6.3	38.5	0.0	0.5
1950-59	0.0	0.4	0.4	0.1	0.1	0.1	0.3	0.5	6.5	5.9	9.8	9.5	8.7	40.4	0.0	0.5
1960-69	0.0	0.3	0.4	0.1	0.0	0.1	0.2	0.4	4.6	7.0	12.6	5.4	11.9	41.6	0.0	0.6
1970	0.1	0.3	0.4	0.1	0.0	0.1	0.2	0.4	3.6	7.2	14.2	3.7	14.6	43.3	0.0	0.7
1971	0.1	0.3	0.3	0.1	0.0	0.1	0.2	0.4	3.4	7.3	13.8	3.3	14.7	42.5	0.0	0.7
1972	0.1	0.3	0.4	0.1	0.0	0.1	0.2	0.4	3.3	7.4	14.4	2.8	15.7	43.7	0.0	0.7
1973	0.1	0.3	0.3	0.1	0.0	0.1	0.2	0.4	3.3	7.6	14.5	2.7	17.1	45.2	0.0	0.7
1974	0.1	0.3	0.4	0.1	0.0	0.1	0.2	0.4	3.1	7.6	14.1	2.5	16.7	44.0	0.0	0.7
1975	0.1	0.4	0.4	0.1	0.0	0.1	0.2	0.5	3.3	7.7	14.6	2.6	17.3	45.4	0.0	0.6
1976	0.1	0.3	0.4	0.1	0.0	0.1	0.2	0.5	2.9	8.0	14.6	2.3	17.8	45.6	0.0	0.7
1977	0.1	0.4	0.4	0.1	0.0	0.1	0.2	0.5	2.9	7.8	14.5	2.0	17.9	45.1	0.0	0.7
1978	0.1	0.4	0.5	0.1	0.0	0.1	0.2	0.4	3.0	7.7	15.1	1.8	18.5	46.1	0.0	0.7
1979	0.1	0.4	0.4	0.1	0.0	0.1	0.2	0.4	3.0	7.5	15.3	2.2	18.4	46.4	0.0	0.7
1980	0.1	0.4	0.4	0.1	0.0	0.1	0.2	0.4	3.0	7.6	15.0	2.8	18.5	46.9	0.0	0.7
1981	0.1	0.4	0.5	0.1	0.0	0.1	0.2	0.4	2.8	7.4	15.3	2.6	18.9	47.0	0.0	0.7
1982	0.1	0.4	0.5	0.1	0.0	0.1	0.2	0.4	2.9	7.3	15.5	3.0	19.2	47.8	0.0	0.7
1983	0.1	0.4	0.5	0.1	0.0	0.1	0.2	0.4	3.2	6.8	14.9	3.1	20.1	48.0	0.0	0.7
1984	0.0	0.5	0.5	0.1	0.0	0.1	0.2	0.4	3.2	6.6	16.9	2.8	19.2	48.7	0.0	0.8
1985	0.0	0.4	0.5	0.1	0.0	0.1	0.2	0.4	3.0	6.7	17.6	2.8	19.4	49.5	0.0	0.8
1986	0.1	0.4	0.5	0.1	0.0	0.1	0.2	0.4	2.9	7.1	17.1	2.6	20.5	50.2	0.0	0.8
1987	0.1	0.5	0.6	0.1	0.0	0.1	0.2	0.4	3.0	6.6	16.8	1.9	21.5	49.7	0.0	0.8
1988	0.1	0.4	0.5	0.1	0.0	0.1	0.2	0.4	2.8	6.5	16.7	1.8	22.1	49.9	0.0	0.8
1989	0.1	0.5	0.5	0.1	0.0	0.1	0.2	0.4	2.8	6.6	17.2	1.5	21.0	49.2	0.0	0.9
1990	0.0	0.4	0.5	0.1	0.0	0.1	0.2	0.4	2.8	7.0	17.6	1.8	21.6	50.7	0.0	0.9
1991	0.0	0.4	0.5	0.1	0.0	0.1	0.2	0.4	2.8	6.8	18.0	2.2	22.9	52.8	0.0	0.9
1992	0.0	0.5	0.5	0.1	0.0	0.1	0.2	0.4	2.8	6.9	17.5	2.8	23.2	53.1	0.0	0.9
1993	0.0	0.5	0.5	0.1	0.0	0.1	0.2	0.4	2.9	6.9	19.3	2.6	22.8	54.4	0.0	0.9
1994	0.0	0.4	0.5	0.1	0.1	0.1	0.2	0.4	3.0	6.2	18.7	3.3	22.4	53.7	0.0	0.8
1995	0.0	0.4	0.5	0.1	0.1	0.1	0.2	0.5	2.9	5.9	17.7	3.4	23.3	53.3	0.0	0.8
1996	0.1	0.5	0.5	0.1	0.1	0.1	0.2	0.5	2.8	5.9	17.7	3.8	22.6	52.8	0.0	1.0
1997	0.0	0.5	0.5	0.1	0.1	0.1	0.2	0.5	2.7	5.5	16.7	3.2	24.7	52.8	0.0	0.9
1998	0.1	0.5	0.5	0.1	0.1	0.1	0.2	0.5	2.9	5.3	16.4	4.0	23.9	52.5	0.0	1.0
1999	0.0	0.5	0.5	0.1	0.1	0.1	0.2	0.4	2.9	4.9	16.3	4.3	24.5	52.9	0.0	0.9
2000	0.0	0.4	0.5	0.1	0.1	0.1	0.2	0.4	2.7	4.8	16.9	4.3	26.9	55.7	0.0	0.9

Table 9. Saturated Fatty Acids Contributed from Major Food Groups to the U.S. Food Supply, Selected Years

	Meat, poultry, & fish				Dairy products							
Year	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total	Eggs	Legumes, nuts & soy	Grain products
						Percent						
1909-19	30.3	1.0	0.3	31.5	12.5	0.3	2.0	7.1	22.0	2.5	0.9	1.6
1920-29	27.5	0.9	0.3	28.7	13.0	0.3	2.2	9.2	24.6	2.5	1.3	1.3
1930-39	25.2	0.9	0.2	26.4	13.0	0.3	2.4	9.7	25.3	2.3	1.5	1.1
1940-49	29.0	1.3	0.2	30.4	15.4	0.3	2.8	9.3	27.8	2.6	1.6	1.0
1950-59	30.1	1.5	0.2	31.8	14.7	0.3	3.6	7.6	26.1	2.9	1.9	0.8
1960-69	32.3	2.3	0.2	34.8	12.5	0.5	4.3	6.2	23.6	2.5	2.0	0.7
1970	34.5	3.1	0.2	37.8	11.0	1.2	5.1	5.5	22.7	2.5	1.9	0.6
1971	35.3	3.1	0.2	38.6	10.7	1.3	5.3	5.3	22.6	2.5	2.0	0.6
1972	34.2	3.3	0.2	37.7	10.5	1.4	5.8	5.3	22.9	2.5	2.1	0.6
1973	32.7	3.3	0.2	36.2	10.4	1.4	6.2	5.5	23.5	2.5	2.1	0.6
1974	34.2	3.2	0.2	37.7	9.6	1.5	6.5	5.4	22.9	2.4	1.9	1.0
1975	31.6	3.3	0.2	35.1	9.7	1.6	6.7	5.8	23.8	2.5	2.1	1.1
1976	32.2	3.4	0.2	35.8	9.0	1.8	7.0	5.5	23.3	2.3	2.0	1.0
1977	32.2	3.5	0.2	36.0	8.7	2.0	7.3	5.5	23.4	2.3	1.9	1.1
1978	31.0	3.7	0.2	34.9	8.3	2.0	7.7	5.5	23.5	2.4	2.0	1.1
1979	30.6	3.9	0.2	34.6	7.9	2.0	7.7	5.4	23.1	2.4	2.0	1.1
1980	30.8	3.9	0.2	34.8	7.4	2.1	7.8	5.4	22.7	2.3	1.7	1.1
1981	30.3	4.0	0.2	34.5	7.1	2.2	8.2	5.6	23.0	2.3	1.9	1.1
1982	28.7	4.1	0.2	32.9	6.8	2.3	9.0	5.6	23.7	2.3	2.0	1.1
1983	28.9	4.0	0.2	33.0	6.5	2.3	9.0	5.7	23.5	2.2	2.0	1.1
1984	28.0	4.0	0.2	32.2	6.2	2.3	9.2	5.8	23.4	2.2	2.0	1.1
1985	27.1	4.0	0.2	31.4	5.8	2.3	9.3	5.8	23.3	2.1	2.0	1.1
1986	26.1	4.2	0.2	30.5	5.5	2.5	9.5	5.9	23.4	2.1	2.0	1.1
1987	25.6	4.6	0.2	30.4	5.4	2.6	10.1	6.2	24.3	2.1	2.2	1.2
1988	26.1	4.6	0.2	30.9	5.2	2.6	9.8	6.1	23.7	2.1	2.2	1.3
1989	26.0	4.9	0.2	31.1	4.9	2.8	10.1	6.2	24.1	2.0	2.3	1.4
1990	24.8	5.1	0.2	30.1	4.5	2.9	10.3	6.2	23.9	2.0	2.1	1.4
1991	21.5	5.4	0.2	27.2	4.4	3.0	10.7	6.3	24.4	2.1	2.2	1.5
1992	21.0	5.5	0.2	26.7	4.1	2.8	10.7	6.2	23.8	2.0	2.2	1.7
1993	20.3	5.6	0.2	26.1	3.9	2.7	10.7	6.1	23.4	2.0	2.1	1.7
1994	20.8	5.8	0.2	26.8	3.9	2.8	11.1	6.2	23.9	2.0	2.1	1.7
1995	21.2	5.8	0.2	27.2	3.8	2.7	11.4	6.3	24.2	2.0	2.1	1.6
1996	20.9	6.0	0.2	27.1	3.7	2.7	11.6	6.5	24.5	2.1	2.2	1.6
1997	20.8	6.1	0.2	27.1	3.7	2.7	11.9	6.8	25.1	2.1	2.3	1.6
1998	21.0	5.9	0.2	27.1	3.5	2.5	11.6	6.7	24.4	2.1	2.4	1.5
1999	20.7	6.1	0.2	27.0	3.5	2.5	11.8	6.6	24.3	2.1	2.3	1.5
2000	19.6	5.8	0.2	25.6	3.3	2.3	11.5	6.3	23.4	2.0	2.2	1.5

Table 9. Saturated Fatty Acids Contributed from Major Food Groups to the U.S. Food Supply, Selected Years—Continued

	Fruits			Vegetables					Fats and Oils							
Year	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Marg-arine	Short-ening	Lard & beef tallow	Salad, cooking & other edible oils	Total	Sugars & sweeteners	Miscel-laneous
								Percent								
1909-19	0.0	0.2	0.2	0.1	0.0	0.0	0.1	0.2	21.0	1.4	5.9	11.1	1.4	40.7	0.0	0.3
1920-29	0.0	0.2	0.2	0.1	0.0	0.0	0.1	0.2	20.4	1.3	4.8	11.6	2.5	40.7	0.0	0.5
1930-39	0.0	0.2	0.2	0.0	0.0	0.0	0.1	0.2	20.3	1.1	5.9	10.9	4.2	42.3	0.0	0.6
1940-49	0.0	0.2	0.2	0.0	0.0	0.0	0.1	0.2	14.0	1.6	5.3	11.0	3.7	35.5	0.0	0.6
1950-59	0.0	0.2	0.2	0.0	0.0	0.0	0.1	0.2	10.2	3.0	6.8	9.5	6.0	35.6	0.0	0.6
1960-69	0.0	0.2	0.2	0.0	0.0	0.0	0.1	0.2	7.5	3.8	10.0	5.6	8.3	35.3	0.0	0.6
1970	0.0	0.2	0.2	0.1	0.0	0.0	0.1	0.2	6.4	4.2	11.9	4.1	6.8	33.3	0.0	0.7
1971	0.0	0.2	0.2	0.0	0.0	0.0	0.1	0.2	6.1	4.4	11.8	3.7	6.7	32.6	0.0	0.7
1972	0.0	0.2	0.2	0.1	0.0	0.0	0.1	0.2	5.9	4.4	12.3	3.2	7.2	33.0	0.0	0.8
1973	0.0	0.2	0.2	0.1	0.0	0.0	0.1	0.2	5.9	4.4	12.2	3.1	8.3	33.9	0.0	0.8
1974	0.0	0.2	0.2	0.1	0.0	0.0	0.1	0.2	5.5	4.6	12.0	2.9	8.0	33.0	0.0	0.7
1975	0.0	0.2	0.2	0.1	0.0	0.0	0.1	0.2	6.1	4.5	12.3	3.0	8.5	34.3	0.0	0.7
1976	0.0	0.2	0.2	0.1	0.0	0.0	0.1	0.2	5.4	4.6	12.9	2.6	8.7	34.3	0.0	0.7
1977	0.0	0.2	0.2	0.1	0.0	0.0	0.1	0.2	5.4	4.6	13.2	2.3	8.7	34.2	0.0	0.7
1978	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.5	4.5	14.0	2.1	9.0	35.0	0.0	0.7
1979	0.0	0.2	0.2	0.1	0.0	0.0	0.1	0.2	5.6	4.4	13.9	2.7	8.9	35.6	0.0	0.7
1980	0.0	0.2	0.2	0.1	0.0	0.0	0.1	0.2	5.5	4.5	13.7	3.6	8.9	36.2	0.0	0.7
1981	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.3	4.4	14.0	3.4	9.0	36.0	0.0	0.7
1982	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.4	4.2	14.0	3.9	9.1	36.7	0.0	0.8
1983	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	6.0	3.9	13.4	4.2	9.4	36.9	0.0	0.8
1984	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.9	3.8	15.3	3.7	9.1	37.8	0.0	0.8
1985	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.7	3.9	16.2	3.7	9.2	38.8	0.0	0.9
1986	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.4	4.1	15.7	3.5	10.8	39.5	0.0	0.9
1987	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.6	3.8	15.3	2.5	11.1	38.4	0.0	0.9
1988	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.4	3.8	15.4	2.3	11.4	38.4	0.0	0.9
1989	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.4	3.9	15.7	1.8	10.8	37.6	0.0	1.0
1990	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.4	4.1	15.8	2.3	11.3	38.9	0.0	1.1
1991	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.5	4.1	15.8	3.1	12.5	41.0	0.0	1.1
1992	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.3	4.1	15.3	4.0	13.2	41.9	0.0	1.1
1993	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.7	4.1	16.7	3.7	13.0	43.1	0.0	1.0
1994	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.9	3.7	16.3	4.7	11.4	42.0	0.0	1.0
1995	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.6	3.5	15.4	4.9	12.0	41.4	0.0	0.9
1996	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.4	3.5	15.3	5.4	11.4	40.9	0.0	1.1
1997	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.3	3.3	14.5	4.6	12.5	40.2	0.0	1.0
1998	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.5	3.1	14.0	5.7	12.5	40.9	0.0	1.1
1999	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.7	2.9	13.9	6.2	12.4	41.1	0.0	1.1
2000	0.0	0.3	0.3	0.1	0.0	0.0	0.1	0.2	5.3	2.9	14.5	6.4	14.6	43.7	0.0	1.1

Table 10. Monounsaturated Fatty Acids Contributed from Major Food Groups to the U.S. Food Supply, Selected Years

	Meat, poultry, & fish				Dairy products							
Year	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total	Eggs	Legumes, nuts & soy	Grain products
						Percent						
1909-19	37.3	1.5	0.7	39.6	6.2	0.1	1.0	3.5	10.8	3.2	2.4	1.7
1920-29	35.1	1.5	0.6	37.1	6.6	0.1	1.0	4.7	12.4	3.3	2.9	1.4
1930-39	32.2	1.5	0.5	34.1	6.6	0.1	1.2	5.0	12.9	3.1	3.2	1.2
1940-49	35.1	1.8	0.4	37.3	7.4	0.1	1.3	4.6	13.4	3.3	3.8	0.9
1950-59	34.7	2.1	0.4	37.3	6.8	0.1	1.6	3.6	12.1	3.6	3.5	0.7
1960-69	35.6	3.2	0.3	39.1	5.6	0.2	1.8	2.8	10.5	3.0	3.9	0.6
1970	34.3	3.9	0.3	38.5	4.4	0.5	1.9	2.2	9.1	2.7	3.8	0.5
1971	35.2	3.9	0.3	39.5	4.3	0.5	2.0	2.2	9.0	2.7	3.9	0.5
1972	33.6	4.1	0.3	38.1	4.2	0.5	2.2	2.1	9.1	2.6	4.0	0.4
1973	31.9	4.1	0.3	36.3	4.1	0.6	2.4	2.2	9.3	2.6	4.2	0.4
1974	33.5	4.0	0.3	37.8	3.8	0.6	2.5	2.2	9.0	2.5	3.9	0.8
1975	30.6	4.0	0.3	35.0	3.8	0.6	2.5	2.3	9.3	2.6	4.4	0.9
1976	30.6	4.1	0.3	35.0	3.5	0.7	2.6	2.1	8.9	2.4	3.9	0.8
1977	31.0	4.3	0.3	35.5	3.4	0.8	2.7	2.2	9.0	2.4	3.8	0.9
1978	29.6	4.4	0.3	34.3	3.2	0.8	2.8	2.1	9.0	2.4	4.0	0.9
1979	29.3	4.6	0.3	34.2	3.0	0.8	2.8	2.1	8.8	2.4	4.2	0.9
1980	29.7	4.6	0.3	34.5	2.9	0.8	2.9	2.1	8.6	2.4	3.5	0.9
1981	28.9	4.7	0.3	33.9	2.7	0.8	3.0	2.1	8.7	2.3	3.8	0.9
1982	27.1	4.8	0.2	32.1	2.6	0.9	3.3	2.2	8.9	2.3	4.3	0.9
1983	27.5	4.7	0.3	32.4	2.5	0.9	3.3	2.2	8.9	2.2	4.2	0.9
1984	26.4	4.7	0.2	31.3	2.3	0.9	3.3	2.2	8.7	2.2	4.2	0.9
1985	25.5	4.7	0.2	30.5	2.2	0.9	3.4	2.2	8.7	2.1	4.3	0.9
1986	24.5	4.9	0.3	29.7	2.1	0.9	3.4	2.3	8.7	2.1	4.1	1.0
1987	23.9	5.3	0.2	29.4	2.0	1.0	3.6	2.3	9.0	2.1	4.2	1.0
1988	24.1	5.3	0.2	29.6	1.9	1.0	3.5	2.3	8.6	2.0	4.4	1.1
1989	23.9	5.6	0.3	29.7	1.8	1.0	3.6	2.3	8.7	2.0	4.5	1.2
1990	22.4	5.7	0.3	28.3	1.6	1.0	3.6	2.3	8.5	1.9	4.2	1.2
1991	20.9	5.9	0.2	27.0	1.6	1.0	3.6	2.2	8.4	1.9	4.2	1.2
1992	20.7	6.0	0.2	26.9	1.5	1.0	3.6	2.2	8.3	1.9	4.0	1.4
1993	19.6	6.0	0.2	25.8	1.3	0.9	3.6	2.1	8.0	1.8	3.9	1.3
1994	19.9	6.1	0.2	26.3	1.3	1.0	3.6	2.1	8.1	1.8	3.8	1.3
1995	20.5	6.3	0.3	27.0	1.3	0.9	3.8	2.2	8.2	1.9	3.6	1.3
1996	20.1	6.4	0.3	26.7	1.3	0.9	3.9	2.3	8.4	1.9	3.7	1.2
1997	19.9	6.5	0.3	26.6	1.3	0.9	4.0	2.3	8.5	1.9	3.9	1.2
1998	20.5	6.4	0.2	27.1	1.2	0.9	3.9	2.3	8.4	1.9	4.0	1.2
1999	20.0	6.5	0.3	26.8	1.2	0.9	3.9	2.3	8.3	1.9	4.0	1.2
2000	18.7	6.2	0.3	25.2	1.1	0.8	3.8	2.2	7.9	1.9	3.7	1.1

Table 10. Monounsaturated Fatty Acids Contributed from Major Food Groups to the U.S. Food Supply, Selected Years—Continued

	Fruits			Vegetables					Fats and Oils							
Year	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Marg-arine	Short-ening	Lard & beef tallow	Salad, cooking & other edible oils	Total	Sugars & sweeteners	Miscel-laneous
								Percent								
1909-19	0.0	0.2	0.2	0.0	0.0	0.1	0.1	0.2	10.4	1.9	14.3	13.6	1.6	41.8	0.0	0.2
1920-29	0.0	0.3	0.3	0.0	0.0	0.0	0.1	0.2	10.3	2.2	11.9	14.6	3.0	42.1	0.0	0.4
1930-39	0.0	0.3	0.3	0.0	0.0	0.0	0.1	0.2	10.3	2.2	14.5	13.8	3.8	44.7	0.0	0.5
1940-49	0.0	0.3	0.3	0.0	0.0	0.0	0.1	0.2	6.8	3.4	12.4	13.2	4.4	40.2	0.0	0.5
1950-59	0.0	0.4	0.4	0.0	0.0	0.0	0.1	0.1	4.7	6.6	13.6	10.9	6.2	42.0	0.0	0.4
1960-69	0.0	0.3	0.4	0.0	0.0	0.0	0.1	0.1	3.4	7.6	16.9	6.2	7.8	41.9	0.0	0.5
1970	0.0	0.4	0.4	0.0	0.0	0.0	0.1	0.1	2.6	7.6	18.6	4.1	11.3	44.3	0.0	0.6
1971	0.0	0.3	0.3	0.0	0.0	0.0	0.1	0.1	2.5	7.8	17.8	3.7	11.6	43.3	0.0	0.7
1972	0.0	0.3	0.4	0.0	0.0	0.0	0.1	0.1	2.4	7.8	18.8	3.2	12.4	44.6	0.0	0.7
1973	0.0	0.3	0.3	0.0	0.0	0.0	0.1	0.1	2.4	8.0	19.2	3.1	13.3	46.0	0.0	0.7
1974	0.0	0.3	0.3	0.0	0.0	0.0	0.1	0.1	2.2	8.0	18.6	2.8	13.0	44.8	0.0	0.7
1975	0.0	0.5	0.5	0.0	0.0	0.0	0.1	0.1	2.4	8.2	19.5	3.0	13.6	46.7	0.0	0.6
1976	0.0	0.4	0.4	0.0	0.0	0.0	0.1	0.1	2.1	8.4	20.7	2.5	14.0	47.7	0.0	0.7
1977	0.0	0.5	0.5	0.0	0.0	0.0	0.1	0.1	2.1	8.2	20.4	2.2	14.2	47.1	0.0	0.6
1978	0.0	0.6	0.6	0.0	0.0	0.0	0.1	0.1	2.1	8.0	21.3	2.0	14.6	48.0	0.0	0.6
1979	0.0	0.4	0.4	0.0	0.0	0.0	0.1	0.1	2.2	7.8	21.5	2.5	14.4	48.4	0.0	0.6
1980	0.0	0.4	0.5	0.0	0.0	0.0	0.1	0.1	2.1	7.9	21.2	3.1	14.6	48.9	0.0	0.6
1981	0.0	0.5	0.5	0.0	0.0	0.0	0.1	0.1	2.0	7.7	21.6	2.9	14.9	49.1	0.0	0.7
1982	0.0	0.6	0.6	0.0	0.0	0.0	0.1	0.1	2.1	7.6	22.1	3.2	15.1	50.1	0.0	0.6
1983	0.0	0.5	0.5	0.0	0.0	0.0	0.1	0.1	2.3	7.0	21.5	3.3	16.0	50.1	0.0	0.7
1984	0.0	0.6	0.6	0.0	0.0	0.0	0.1	0.1	2.2	6.8	24.1	3.0	15.1	51.3	0.0	0.7
1985	0.0	0.5	0.6	0.0	0.0	0.0	0.1	0.1	2.2	6.9	25.0	2.9	15.3	52.2	0.0	0.7
1986	0.0	0.5	0.5	0.0	0.0	0.0	0.1	0.1	2.1	7.2	24.3	2.7	16.7	53.1	0.0	0.7
1987	0.0	0.6	0.6	0.0	0.0	0.0	0.1	0.1	2.1	6.8	24.1	2.1	17.8	52.9	0.0	0.7
1988	0.0	0.5	0.5	0.0	0.0	0.0	0.1	0.1	2.0	6.6	24.3	1.9	18.1	52.9	0.0	0.7
1989	0.0	0.5	0.6	0.0	0.0	0.0	0.1	0.1	2.0	6.7	25.1	1.6	17.0	52.4	0.0	0.8
1990	0.0	0.5	0.5	0.0	0.0	0.0	0.1	0.1	2.0	7.0	25.9	1.9	17.8	54.5	0.0	0.8
1991	0.0	0.4	0.4	0.0	0.0	0.0	0.1	0.1	1.9	6.7	26.6	2.3	18.3	55.9	0.0	0.8
1992	0.0	0.5	0.6	0.0	0.0	0.0	0.1	0.1	1.9	6.8	25.9	2.8	18.6	56.1	0.0	0.8
1993	0.0	0.6	0.6	0.0	0.0	0.0	0.1	0.1	2.0	6.6	28.4	2.6	18.2	57.8	0.0	0.7
1994	0.0	0.4	0.4	0.0	0.0	0.0	0.1	0.1	2.0	6.0	27.4	3.3	18.8	57.5	0.0	0.7
1995	0.0	0.4	0.4	0.0	0.0	0.0	0.1	0.1	2.0	5.6	26.2	3.5	19.5	56.7	0.0	0.7
1996	0.0	0.6	0.6	0.0	0.0	0.0	0.1	0.1	1.9	5.6	26.3	3.8	18.9	56.5	0.0	0.8
1997	0.0	0.5	0.5	0.0	0.0	0.0	0.1	0.1	1.8	5.3	24.8	3.3	21.2	56.4	0.0	0.8
1998	0.0	0.5	0.5	0.0	0.0	0.0	0.1	0.1	1.9	5.1	24.5	4.1	20.3	56.0	0.0	0.8
1999	0.0	0.5	0.5	0.0	0.0	0.0	0.1	0.1	2.0	4.7	24.3	4.3	21.0	56.4	0.0	0.8
2000	0.0	0.4	0.5	0.0	0.0	0.0	0.1	0.1	1.8	4.6	25.3	4.4	22.8	59.0	0.0	0.7

Table 11. Polyunsaturated Fatty Acids Contributed from Major Food Groups to the U.S. Food Supply, Selected Years

	Meat, poultry, & fish				Dairy products							
Year	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total	Eggs	Legumes, nuts & soy	Grain products
						Percent						
1909-19	25.3	2.9	1.8	29.9	2.8	0.1	0.4	1.6	4.8	4.2	6.8	15.7
1920-29	22.9	2.6	1.8	27.3	2.8	0.1	0.4	2.0	5.2	4.0	7.6	12.0
1930-39	20.4	2.6	1.8	24.8	2.7	0.1	0.4	2.1	5.2	3.7	8.0	10.0
1940-49	20.6	3.1	1.4	25.0	2.8	0.1	0.4	1.7	5.0	3.7	8.8	7.6
1950-59	18.5	3.4	1.2	23.1	2.4	0.1	0.5	1.3	4.2	3.7	7.4	5.3
1960-69	15.9	4.4	0.9	21.2	1.8	0.1	0.5	0.9	3.2	2.7	7.0	4.1
1970	13.4	4.9	0.8	19.1	1.3	0.1	0.5	0.7	2.5	2.2	6.2	3.2
1971	14.0	4.9	0.7	19.7	1.3	0.1	0.5	0.6	2.5	2.2	6.4	3.1
1972	12.6	5.0	0.8	18.4	1.2	0.2	0.5	0.6	2.5	2.1	6.4	2.7
1973	11.2	4.7	0.8	16.7	1.1	0.2	0.5	0.6	2.4	2.0	6.4	2.7
1974	11.9	4.7	0.7	17.4	1.0	0.2	0.6	0.6	2.4	2.0	6.2	3.5
1975	10.4	4.7	0.6	15.7	1.0	0.2	0.6	0.6	2.4	2.0	6.8	3.6
1976	10.2	4.6	0.6	15.4	0.9	0.2	0.6	0.6	2.2	1.8	6.0	3.4
1977	10.5	4.8	0.6	15.9	0.9	0.2	0.6	0.6	2.2	1.8	5.9	3.5
1978	9.9	4.9	0.6	15.4	0.8	0.2	0.6	0.6	2.2	1.8	5.8	3.4
1979	10.3	5.1	0.6	16.0	0.8	0.2	0.6	0.5	2.1	1.8	6.1	3.4
1980	10.6	5.1	0.6	16.3	0.7	0.2	0.6	0.5	2.1	1.7	5.4	3.4
1981	10.1	5.2	0.6	15.9	0.7	0.2	0.6	0.5	2.1	1.7	5.8	3.4
1982	9.2	5.2	0.5	14.9	0.7	0.2	0.7	0.5	2.1	1.7	6.2	3.5
1983	9.2	5.0	0.5	14.8	0.6	0.2	0.7	0.5	2.1	1.6	6.1	3.4
1984	9.1	5.2	0.5	14.8	0.6	0.2	0.7	0.6	2.1	1.6	6.1	3.4
1985	8.8	5.2	0.6	14.6	0.6	0.2	0.7	0.6	2.1	1.5	6.1	3.5
1986	8.4	5.4	0.6	14.3	0.5	0.2	0.7	0.6	2.1	1.5	6.1	3.7
1987	8.1	5.8	0.6	14.4	0.5	0.2	0.8	0.6	2.1	1.5	6.0	3.8
1988	8.2	5.7	0.5	14.4	0.5	0.2	0.7	0.6	2.0	1.4	6.2	4.0
1989	8.2	6.1	0.6	14.9	0.5	0.3	0.7	0.6	2.0	1.4	6.3	4.1
1990	7.7	6.2	0.6	14.4	0.4	0.3	0.7	0.6	2.0	1.4	5.8	4.2
1991	7.3	6.4	0.5	14.2	0.4	0.3	0.7	0.6	2.0	1.4	5.9	4.2
1992	7.4	6.5	0.5	14.4	0.4	0.2	0.8	0.6	1.9	1.3	5.7	4.3
1993	7.2	6.7	0.5	14.3	0.3	0.2	0.8	0.6	1.9	1.3	5.4	4.3
1994	7.4	6.9	0.5	14.8	0.3	0.2	0.8	0.6	1.9	1.4	5.5	4.4
1995	7.4	6.9	0.5	14.8	0.3	0.2	0.8	0.6	1.9	1.4	5.2	4.3
1996	7.2	7.1	0.5	14.8	0.3	0.2	0.8	0.6	2.0	1.4	5.3	4.4
1997	7.0	7.0	0.5	14.4	0.3	0.2	0.8	0.6	2.0	1.4	5.4	4.3
1998	7.4	7.1	0.5	15.0	0.3	0.2	0.8	0.6	2.0	1.4	5.6	4.3
1999	7.2	7.1	0.5	14.9	0.3	0.2	0.8	0.6	1.9	1.4	5.7	4.2
2000	6.6	6.6	0.5	13.6	0.3	0.2	0.8	0.5	1.8	1.3	5.0	3.9

Table 11. Polyunsaturated Fatty Acids Contributed from Major Food Groups to the U.S. Food Supply, Selected Years—Continued

	Fruits			Vegetables					Fats and Oils							
Year	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Marg-arine	Short-ening	Lard & beef tallow	Salad, cooking & other edible oils	Total	Sugars & sweeteners	Miscel-laneous
								Percent								
1909-19	0.0	1.2	1.2	0.5	0.3	0.5	1.1	2.4	4.8	3.1	6.2	12.2	8.5	34.7	0.0	0.2
1920-29	0.0	1.1	1.1	0.4	0.3	0.4	1.1	2.2	4.5	3.9	4.9	12.2	14.7	40.2	0.0	0.4
1930-39	0.1	1.0	1.0	0.3	0.3	0.4	1.1	2.2	4.4	4.8	5.8	11.4	18.4	44.7	0.0	0.4
1940-49	0.1	0.8	0.8	0.3	0.3	0.4	1.0	2.0	2.7	7.0	4.7	10.0	22.3	46.8	0.0	0.3
1950-59	0.1	0.6	0.7	0.2	0.2	0.3	0.8	1.5	1.8	13.3	5.4	7.8	25.4	53.6	0.0	0.3
1960-69	0.1	0.5	0.5	0.2	0.1	0.2	0.7	1.2	1.1	14.6	6.6	4.0	33.3	59.5	0.0	0.4
1970	0.1	0.4	0.5	0.2	0.1	0.2	0.6	1.1	0.8	13.7	7.6	2.4	40.1	64.5	0.0	0.6
1971	0.1	0.4	0.5	0.2	0.1	0.2	0.6	1.0	0.7	13.4	7.4	2.1	40.2	63.8	0.0	0.6
1972	0.1	0.4	0.4	0.2	0.1	0.2	0.6	1.0	0.7	13.7	7.6	1.8	41.9	65.7	0.0	0.7
1973	0.1	0.4	0.4	0.2	0.1	0.2	0.6	1.0	0.7	13.9	7.4	1.6	44.1	67.7	0.0	0.7
1974	0.1	0.4	0.4	0.2	0.1	0.2	0.6	1.0	0.6	13.4	7.1	1.5	43.7	66.4	0.0	0.7
1975	0.1	0.4	0.5	0.2	0.1	0.2	0.6	1.1	0.7	13.7	7.4	1.6	44.1	67.4	0.0	0.6
1976	0.1	0.4	0.4	0.2	0.1	0.2	0.5	1.0	0.6	13.8	9.9	1.3	43.5	69.1	0.0	0.7
1977	0.1	0.4	0.5	0.2	0.1	0.2	0.5	1.0	0.6	13.6	9.5	1.1	43.7	68.5	0.0	0.7
1978	0.1	0.4	0.5	0.2	0.1	0.2	0.5	0.9	0.6	13.3	9.5	1.0	44.9	69.2	0.0	0.7
1979	0.1	0.4	0.5	0.2	0.1	0.2	0.5	0.9	0.6	12.9	9.6	1.1	44.3	68.5	0.0	0.7
1980	0.1	0.4	0.5	0.2	0.1	0.2	0.5	0.9	0.6	12.9	9.4	1.3	44.8	69.0	0.0	0.7
1981	0.1	0.4	0.5	0.2	0.1	0.2	0.5	0.9	0.5	12.6	9.4	1.2	45.3	69.0	0.0	0.7
1982	0.1	0.5	0.5	0.2	0.1	0.2	0.5	0.9	0.5	12.6	9.6	1.3	45.5	69.6	0.0	0.7
1983	0.1	0.4	0.5	0.2	0.1	0.2	0.5	0.9	0.6	11.6	9.3	1.1	47.5	70.0	0.0	0.7
1984	0.0	0.5	0.5	0.2	0.1	0.2	0.5	0.9	0.6	11.6	10.4	1.1	46.2	69.8	0.0	0.7
1985	0.0	0.5	0.5	0.2	0.1	0.2	0.5	0.9	0.6	11.6	10.6	1.0	46.3	70.1	0.0	0.7
1986	0.1	0.5	0.5	0.2	0.1	0.2	0.5	0.9	0.5	12.5	10.2	1.0	46.0	70.2	0.0	0.7
1987	0.0	0.5	0.6	0.2	0.1	0.2	0.4	0.9	0.5	11.4	9.8	0.8	47.5	70.0	0.0	0.7
1988	0.0	0.5	0.5	0.1	0.1	0.2	0.4	0.8	0.5	10.9	9.4	0.8	48.4	70.0	0.0	0.7
1989	0.1	0.5	0.6	0.2	0.1	0.2	0.5	0.9	0.5	11.3	9.7	0.7	46.8	69.0	0.0	0.8
1990	0.0	0.5	0.5	0.2	0.1	0.2	0.5	0.9	0.5	11.8	10.0	0.8	46.9	70.0	0.0	0.8
1991	0.0	0.4	0.5	0.2	0.1	0.2	0.4	0.9	0.5	11.3	9.6	0.8	48.0	70.2	0.0	0.8
1992	0.0	0.5	0.5	0.2	0.1	0.2	0.5	0.9	0.5	11.6	9.5	0.8	47.7	70.1	0.0	0.8
1993	0.0	0.5	0.5	0.2	0.1	0.2	0.4	0.9	0.5	11.6	10.6	0.8	47.0	70.5	0.0	0.7
1994	0.0	0.5	0.5	0.2	0.1	0.2	0.5	0.9	0.5	10.5	10.4	1.1	47.1	69.8	0.0	0.8
1995	0.0	0.4	0.5	0.2	0.1	0.2	0.5	0.9	0.5	10.1	9.8	1.1	48.8	70.2	0.0	0.7
1996	0.0	0.5	0.5	0.2	0.1	0.2	0.5	1.0	0.5	10.1	9.9	1.2	47.9	69.7	0.0	0.9
1997	0.0	0.5	0.5	0.2	0.1	0.2	0.5	0.9	0.5	9.3	9.1	1.1	50.3	70.3	0.0	0.8
1998	0.0	0.5	0.5	0.2	0.1	0.2	0.5	0.9	0.5	9.1	9.2	1.3	49.2	69.4	0.0	0.8
1999	0.0	0.5	0.5	0.2	0.1	0.2	0.5	0.9	0.5	8.5	9.1	1.3	50.3	69.7	0.0	0.7
2000	0.0	0.4	0.5	0.1	0.1	0.2	0.4	0.8	0.5	8.1	9.2	1.3	53.3	72.4	0.0	0.7

Table 12. Cholesterol Contributed from Major Food Groups to the U.S. Food Supply, Selected Years

Year	Meat, poultry, & fish				Dairy products							
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total	Eggs	Legumes, nuts & soy	Grain products
						Percent						
1909-19	27.1	3.1	1.8	32.0	9.6	0.6	1.2	4.5	15.9	38.3	0.0	0.1
1920-29	24.7	3.0	1.8	29.6	9.9	0.6	1.2	5.9	17.5	39.1	0.0	0.1
1930-39	23.8	3.1	1.7	28.6	10.3	0.6	1.5	6.7	19.0	38.2	0.0	0.1
1940-49	25.5	3.9	1.5	30.8	11.3	0.6	1.6	5.8	19.3	39.8	0.0	0.0
1950-59	25.1	4.5	1.6	31.2	10.6	0.5	2.0	4.5	17.5	43.4	0.0	0.0
1960-69	28.0	6.5	1.7	36.2	9.7	0.5	2.6	3.8	16.5	40.4	0.0	0.0
1970	29.7	7.6	2.0	39.2	8.4	1.0	3.0	3.3	15.6	39.5	0.0	0.0
1971	30.1	7.5	1.9	39.6	8.2	1.0	3.1	3.2	15.4	39.3	0.0	0.0
1972	29.7	8.0	2.0	39.7	8.0	1.1	3.4	3.1	15.7	39.2	0.0	0.0
1973	28.9	8.0	2.1	39.1	8.1	1.2	3.7	3.3	16.2	39.5	0.0	0.0
1974	30.7	7.9	2.1	40.7	7.5	1.2	3.9	3.2	15.8	38.4	0.0	0.0
1975	30.1	8.0	2.1	40.3	7.4	1.3	3.9	3.3	16.0	38.7	0.0	0.0
1976	31.4	8.5	2.3	42.1	7.1	1.5	4.2	3.2	16.0	37.3	0.0	0.0
1977	31.3	8.6	2.3	42.1	6.8	1.6	4.3	3.2	15.9	37.2	0.0	0.0
1978	30.0	8.9	2.3	41.3	6.5	1.6	4.5	3.2	15.9	37.9	0.0	0.0
1979	29.2	9.4	2.2	40.8	6.2	1.6	4.6	3.2	15.7	38.4	0.0	0.0
1980	29.6	9.5	2.2	41.3	5.9	1.7	4.7	3.2	15.5	37.8	0.0	0.0
1981	29.7	9.8	2.3	41.8	5.7	1.8	4.9	3.3	15.7	37.3	0.0	0.0
1982	28.5	9.9	2.3	40.8	5.5	1.8	5.5	3.3	16.2	37.8	0.0	0.0
1983	29.2	9.8	2.4	41.4	5.3	1.9	5.5	3.4	16.2	36.8	0.0	0.0
1984	29.0	10.0	2.5	41.4	5.1	1.9	5.7	3.5	16.3	36.6	0.0	0.0
1985	28.8	10.1	2.8	41.8	5.0	2.0	5.9	3.6	16.5	35.7	0.0	0.0
1986	28.5	10.6	2.8	41.9	4.7	2.2	6.1	3.8	16.7	35.7	0.0	0.0
1987	27.7	11.5	2.9	42.1	4.5	2.2	6.3	3.8	16.8	35.9	0.0	0.0
1988	28.2	11.8	2.9	42.8	4.3	2.2	6.2	3.8	16.6	35.4	0.0	0.0
1989	28.3	12.4	3.0	43.7	4.1	2.4	6.3	3.9	16.6	34.8	0.0	0.0
1990	27.7	13.1	3.0	43.7	3.8	2.4	6.5	3.9	16.7	34.7	0.0	0.0
1991	26.6	13.6	3.1	43.3	3.7	2.5	6.7	3.9	16.8	35.0	0.0	0.0
1992	26.6	14.0	3.0	43.6	3.5	2.5	6.8	3.9	16.7	34.7	0.0	0.0
1993	26.1	14.3	3.1	43.4	3.3	2.4	6.9	3.9	16.6	34.8	0.0	0.0
1994	26.3	14.2	3.1	43.6	3.2	2.4	6.9	3.9	16.4	34.5	0.0	0.0
1995	26.7	14.2	3.1	44.1	3.1	2.3	7.0	3.9	16.4	34.3	0.0	0.0
1996	26.2	14.5	3.1	43.8	3.1	2.3	7.1	4.0	16.5	34.6	0.0	0.0
1997	25.8	14.6	3.2	43.6	3.0	2.2	7.2	4.2	16.6	35.0	0.0	0.0
1998	26.1	14.4	3.1	43.6	2.9	2.1	7.1	4.1	16.3	35.0	0.0	0.0
1999	25.5	14.7	3.1	43.3	2.8	2.1	7.2	4.0	16.1	35.3	0.0	0.0
2000	25.7	14.5	3.3	43.5	2.8	2.0	7.3	3.9	16.0	35.2	0.0	0.0

Table 12. Cholesterol Contributed from Major Food Groups to the U.S. Food Supply, Selected Years—Continued

Year	Fruits			Vegetables					Fats and Oils						Sugars & sweeteners	Miscellaneous
	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Margarine	Shortening	Lard & beef tallow	Salad, cooking & other edible oils	Total		
								Percent								
1909-19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.3	0.2	0.2	3.0	0.0	13.8	0.0	0.0
1920-29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	0.2	0.2	3.2	0.0	13.7	0.0	0.0
1930-39	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.6	0.1	0.2	3.2	0.0	14.2	0.0	0.0
1940-49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8	0.0	0.2	3.0	0.0	10.1	0.0	0.0
1950-59	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	0.0	0.6	2.5	0.0	7.9	0.0	0.0
1960-69	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.1	1.3	1.6	0.0	6.8	0.0	0.0
1970	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.1	1.3	1.1	0.0	5.7	0.0	0.0
1971	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.2	1.4	1.0	0.0	5.6	0.0	0.0
1972	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.2	1.4	0.9	0.0	5.4	0.0	0.0
1973	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.1	1.2	0.9	0.0	5.2	0.0	0.0
1974	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.2	1.3	0.8	0.0	5.1	0.0	0.0
1975	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.1	1.1	0.8	0.0	5.0	0.0	0.0
1976	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.1	1.1	0.8	0.0	4.6	0.0	0.0
1977	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.1	1.3	0.6	0.0	4.8	0.0	0.0
1978	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.1	1.4	0.6	0.0	4.9	0.0	0.0
1979	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.1	1.4	0.8	0.0	5.1	0.0	0.0
1980	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.1	1.4	1.0	0.0	5.3	0.0	0.0
1981	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.1	1.4	0.9	0.0	5.2	0.0	0.0
1982	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	1.3	1.1	0.0	5.2	0.0	0.0
1983	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	1.2	1.2	0.0	5.6	0.0	0.0
1984	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	1.4	1.1	0.0	5.7	0.0	0.0
1985	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.1	1.7	1.1	0.0	5.9	0.0	0.0
1986	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.1	1.6	1.0	0.0	5.6	0.0	0.0
1987	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	1.4	0.7	0.0	5.2	0.0	0.0
1988	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	1.4	0.7	0.0	5.1	0.0	0.0
1989	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	1.4	0.5	0.0	4.8	0.0	0.0
1990	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	1.2	0.7	0.0	4.8	0.0	0.0
1991	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.9	0.9	0.0	4.8	0.0	0.0
1992	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.9	1.1	0.0	5.0	0.0	0.0
1993	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.0	0.9	1.1	0.0	5.1	0.0	0.0
1994	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.8	1.3	0.0	5.4	0.0	0.0
1995	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.8	1.4	0.0	5.2	0.0	0.0
1996	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.7	1.5	0.0	5.1	0.0	0.0
1997	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.7	1.3	0.0	4.7	0.0	0.0
1998	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.6	1.6	0.0	5.2	0.0	0.0
1999	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.5	1.7	0.0	5.3	0.0	0.0
2000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	0.6	1.8	0.0	5.3	0.0	0.0

Table 13. Vitamin A (RAE) Contributed from Major Food Groups to the U.S. Food Supply, Selected Years

	Meat, poultry, & fish				Dairy products							
Year	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total	Eggs	Legumes, nuts & soy	Grain products
						Percent						
1909-19	33.0	5.0	0.7	38.7	9.4	0.3	1.3	5.4	16.4	7.3	0.0	1.1
1920-29	29.9	4.8	0.5	35.2	10.0	0.2	1.4	7.3	19.0	7.5	0.0	0.8
1930-39	27.3	4.8	0.4	32.5	10.3	0.2	1.6	8.0	20.2	7.2	0.0	0.6
1940-49	30.7	6.0	0.3	37.0	11.2	0.2	1.8	7.4	20.6	7.5	0.0	0.4
1950-59	30.1	6.1	0.4	36.6	11.0	0.2	2.3	6.7	20.2	8.6	0.0	0.3
1960-69	30.0	6.3	0.4	36.6	9.3	0.4	2.7	8.7	21.1	7.4	0.0	0.3
1970	30.2	5.4	0.4	36.0	7.5	0.8	2.9	10.6	21.8	6.7	0.0	0.2
1971	30.4	5.3	0.3	36.0	7.3	0.9	3.1	10.5	21.8	6.8	0.0	0.2
1972	29.1	5.4	0.4	34.8	7.0	1.0	3.3	10.5	21.7	6.6	0.0	0.1
1973	27.1	5.2	0.4	32.7	6.8	0.9	3.5	10.7	21.9	6.4	0.0	0.1
1974	28.0	4.8	0.4	33.1	6.1	0.9	3.5	10.0	20.5	6.0	0.0	2.9
1975	26.8	4.7	0.3	31.8	5.9	1.0	3.5	10.2	20.6	5.9	0.0	3.0
1976	27.4	4.8	0.3	32.6	5.6	1.2	3.7	10.0	20.4	5.7	0.0	3.0
1977	27.8	4.9	0.3	33.0	5.5	1.3	3.9	10.3	21.0	5.8	0.0	3.2
1978	26.6	5.1	0.3	32.0	5.3	1.3	4.2	10.4	21.3	6.0	0.0	3.3
1979	25.7	5.2	0.3	31.2	5.1	1.3	4.2	10.3	20.9	6.0	0.0	3.5
1980	25.7	5.0	0.4	31.1	4.8	1.4	4.4	10.4	21.0	6.0	0.0	3.6
1981	25.5	5.0	0.4	30.9	4.6	1.4	4.5	10.5	21.1	5.8	0.0	3.7
1982	23.7	4.8	0.4	28.8	4.4	1.5	5.0	10.7	21.6	5.9	0.0	3.7
1983	25.0	4.5	0.4	29.8	4.3	1.6	5.2	10.8	21.9	5.8	0.0	3.8
1984	24.6	4.1	0.4	29.1	4.2	1.5	5.3	10.9	21.9	5.7	0.0	3.8
1985	24.0	3.8	0.4	28.2	4.1	1.7	5.6	11.1	22.5	5.7	0.0	4.0
1986	23.8	4.1	0.4	28.2	3.8	1.8	5.7	11.3	22.7	5.6	0.0	4.1
1987	23.3	4.5	0.4	28.2	3.7	1.8	5.9	11.3	22.6	5.6	0.0	4.1
1988	22.8	4.4	0.4	27.6	3.6	1.9	6.0	11.7	23.1	5.6	0.0	4.5
1989	23.3	4.2	0.4	28.0	3.2	1.9	5.8	11.4	22.4	5.3	0.0	4.6
1990	22.5	4.3	0.4	27.2	2.9	1.9	6.0	11.3	22.1	5.2	0.0	4.9
1991	22.1	4.5	0.4	27.1	2.9	2.0	6.2	11.6	22.6	5.2	0.0	5.2
1992	22.1	4.3	0.4	26.7	2.7	1.9	6.2	11.3	22.1	5.1	0.0	5.4
1993	21.1	4.0	0.4	25.5	2.5	1.8	6.1	11.1	21.5	5.0	0.0	5.3
1994	21.5	3.9	0.4	25.8	2.4	1.8	6.0	10.8	21.0	4.9	0.0	4.7
1995	22.6	4.0	0.4	27.1	2.3	1.7	6.3	11.1	21.4	5.0	0.0	4.6
1996	22.0	4.0	0.4	26.5	2.3	1.7	6.3	10.9	21.1	4.9	0.0	4.2
1997	21.6	4.0	0.4	26.0	2.2	1.6	6.3	10.9	21.0	4.9	0.0	4.0
1998	21.9	4.1	0.4	26.4	2.2	1.6	6.4	11.2	21.3	5.1	0.0	4.0
1999	22.0	4.4	0.5	26.8	2.2	1.6	6.7	11.3	21.9	5.3	0.0	4.4
2000	22.1	4.4	0.5	27.0	2.2	1.6	6.9	11.4	22.1	5.3	0.0	4.3

Table 13. Vitamin A (RAE) Contributed from Major Food Groups to the U.S. Food Supply, Selected Years—Continued

	Fruits			Vegetables					Fats and Oils							
Year	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Marg-arine	Short-ening	Lard & beef tallow	Salad, cooking & other edible oils	Total	Sugars & sweeteners	Miscel-laneous
								Percent								
1909-19	0.1	2.4	2.6	0.0	16.0	1.6	1.9	19.5	14.2	0.0	0.0	0.0	0.0	14.2	0.0	0.1
1920-29	0.2	2.4	2.6	0.0	16.6	1.4	2.3	20.3	14.2	0.0	0.0	0.0	0.0	14.2	0.0	0.4
1930-39	0.3	2.4	2.8	0.0	17.2	1.6	2.7	21.5	14.6	0.2	0.0	0.0	0.0	14.8	0.0	0.4
1940-49	0.4	2.2	2.6	0.0	14.8	1.7	2.5	19.0	9.3	3.2	0.0	0.0	0.0	12.5	0.0	0.3
1950-59	0.4	2.0	2.3	0.0	11.3	1.6	2.3	15.2	6.9	9.6	0.0	0.0	0.0	16.4	0.0	0.4
1960-69	0.3	1.7	2.0	0.0	10.6	1.4	2.2	14.1	5.1	12.1	0.0	0.0	0.0	17.1	0.0	1.3
1970	0.3	1.6	1.9	0.0	12.8	1.5	2.3	16.6	3.9	7.7	0.0	0.0	0.0	11.6	0.0	5.2
1971	0.3	1.5	1.8	0.0	13.2	1.6	2.3	17.1	3.7	7.5	0.0	0.0	0.0	11.2	0.0	5.1
1972	0.3	1.4	1.7	0.0	14.6	1.5	2.3	18.4	3.6	7.8	0.0	0.0	0.0	11.3	0.0	5.2
1973	0.3	1.4	1.8	0.0	16.1	1.5	2.4	20.0	3.5	8.2	0.0	0.0	0.0	11.7	0.0	5.4
1974	0.3	1.3	1.6	0.0	16.4	1.4	2.2	19.9	3.2	7.4	0.0	0.0	0.0	10.6	0.0	5.3
1975	0.4	1.3	1.7	0.0	17.1	1.5	2.2	20.8	3.3	7.8	0.0	0.0	0.0	11.1	0.0	5.1
1976	0.3	1.3	1.7	0.0	16.6	1.5	2.2	20.3	3.0	8.3	0.0	0.0	0.0	11.3	0.0	5.1
1977	0.3	1.4	1.7	0.0	15.0	1.5	2.3	18.8	3.1	8.1	0.0	0.0	0.0	11.2	0.0	5.2
1978	0.3	1.5	1.8	0.0	15.2	1.5	2.3	19.0	3.2	8.2	0.0	0.0	0.0	11.4	0.0	5.3
1979	0.3	1.4	1.7	0.0	16.3	1.5	2.3	20.1	3.2	8.0	0.0	0.0	0.0	11.2	0.0	5.3
1980	0.3	1.4	1.8	0.0	15.9	1.6	2.4	19.8	3.2	8.1	0.0	0.0	0.0	11.3	0.0	5.4
1981	0.3	1.4	1.8	0.0	16.3	1.5	2.3	20.1	3.1	8.0	0.0	0.0	0.0	11.1	0.0	5.5
1982	0.3	1.6	1.9	0.0	17.4	1.5	2.2	21.1	3.2	8.2	0.0	0.0	0.0	11.4	0.0	5.5
1983	0.4	1.4	1.8	0.0	16.3	1.5	2.1	20.0	3.6	7.7	0.0	0.0	0.0	11.3	0.0	5.5
1984	0.3	1.6	1.9	0.0	17.0	1.6	2.1	20.8	3.6	7.6	0.0	0.0	0.0	11.2	0.0	5.5
1985	0.3	1.6	1.9	0.0	16.8	1.5	2.3	20.6	3.6	7.9	0.0	0.0	0.0	11.5	0.0	5.7
1986	0.3	1.7	2.0	0.0	16.0	1.6	2.2	19.8	3.4	8.4	0.0	0.0	0.0	11.8	0.0	5.7
1987	0.3	1.7	2.1	0.0	17.1	1.5	2.1	20.7	3.4	7.7	0.0	0.0	0.0	11.1	0.0	5.6
1988	0.3	1.7	2.0	0.0	16.2	1.5	2.3	20.0	3.4	7.8	0.0	0.0	0.0	11.2	0.0	5.8
1989	0.3	1.8	2.1	0.0	17.0	1.6	2.3	20.9	3.2	7.6	0.0	0.0	0.0	10.8	0.0	5.9
1990	0.3	1.7	1.9	0.0	17.6	1.7	2.2	21.5	3.2	8.0	0.0	0.0	0.0	11.2	0.0	6.0
1991	0.3	1.7	1.9	0.0	16.8	1.7	2.3	20.8	3.2	7.9	0.0	0.0	0.0	11.1	0.0	6.1
1992	0.3	1.6	2.0	0.0	17.5	1.6	2.3	21.4	3.1	8.0	0.0	0.0	0.0	11.1	0.0	6.2
1993	0.3	1.6	1.9	0.0	19.8	1.6	2.2	23.6	3.3	7.9	0.0	0.0	0.0	11.2	0.0	6.0
1994	0.3	1.6	1.9	0.0	22.3	1.6	2.3	26.2	3.3	6.8	0.0	0.0	0.0	10.0	0.0	5.6
1995	0.3	1.6	1.9	0.0	20.8	1.6	2.3	24.7	3.1	6.5	0.0	0.0	0.0	9.6	0.0	5.7
1996	0.4	1.7	2.1	0.0	22.3	1.6	2.2	26.0	3.0	6.3	0.0	0.0	0.0	9.3	0.0	5.9
1997	0.3	1.8	2.1	0.0	23.8	1.5	2.2	27.6	2.8	5.9	0.0	0.0	0.0	8.7	0.0	5.7
1998	0.4	1.8	2.1	0.0	22.4	1.6	2.2	26.2	3.1	5.8	0.0	0.0	0.0	8.9	0.0	5.9
1999	0.3	1.9	2.2	0.0	20.7	1.6	2.4	24.7	3.3	5.6	0.0	0.0	0.0	8.9	0.0	5.8
2000	0.3	1.8	2.1	0.0	20.9	1.6	1.7	24.2	3.2	5.9	0.0	0.0	0.0	9.1	0.0	5.9

Table 14. Carotene Contributed from Major Food Groups to the U.S. Food Supply, Selected Years

Year	Meat, poultry, & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
						Percent						
1909-19	0.0	0.0	0.0	0.0	2.1	0.0	0.2	1.3	3.7	0.0	0.0	4.6
1920-29	0.0	0.0	0.0	0.0	2.1	0.0	0.2	1.6	3.9	0.0	0.0	3.0
1930-39	0.0	0.0	0.0	0.0	2.0	0.0	0.2	1.6	3.8	0.0	0.0	2.2
1940-49	0.0	0.0	0.0	0.0	2.4	0.0	0.3	1.5	4.2	0.0	0.0	1.6
1950-59	0.0	0.0	0.0	0.0	2.8	0.0	0.4	1.4	4.6	0.0	0.1	1.2
1960-69	0.0	0.0	0.0	0.0	2.5	0.1	0.6	1.2	4.4	0.0	0.1	0.9
1970	0.0	0.0	0.0	0.0	1.8	0.2	0.5	0.9	3.3	0.0	0.1	0.5
1971	0.0	0.0	0.0	0.0	1.7	0.2	0.5	0.8	3.3	0.0	0.1	0.4
1972	0.0	0.0	0.0	0.0	1.5	0.2	0.5	0.8	3.0	0.0	0.1	0.3
1973	0.0	0.0	0.0	0.0	1.4	0.2	0.5	0.7	2.8	0.0	0.1	0.3
1974	0.0	0.0	0.0	0.0	1.2	0.2	0.5	0.7	2.7	0.0	0.1	0.2
1975	0.0	0.0	0.0	0.0	1.1	0.2	0.5	0.7	2.6	0.0	0.1	0.2
1976	0.0	0.0	0.0	0.0	1.1	0.2	0.6	0.7	2.6	0.0	0.1	0.2
1977	0.0	0.0	0.0	0.0	1.1	0.3	0.6	0.7	2.7	0.0	0.1	0.3
1978	0.0	0.0	0.0	0.0	1.1	0.3	0.6	0.7	2.8	0.0	0.1	0.3
1979	0.0	0.0	0.0	0.0	1.0	0.3	0.6	0.7	2.6	0.0	0.1	0.3
1980	0.0	0.0	0.0	0.0	1.0	0.3	0.6	0.7	2.6	0.0	0.1	0.4
1981	0.0	0.0	0.0	0.0	0.9	0.3	0.7	0.7	2.6	0.0	0.1	0.4
1982	0.0	0.0	0.0	0.0	0.8	0.3	0.7	0.7	2.5	0.0	0.1	0.4
1983	0.0	0.0	0.0	0.0	0.8	0.3	0.8	0.7	2.7	0.0	0.1	0.4
1984	0.0	0.0	0.0	0.0	0.8	0.3	0.7	0.7	2.5	0.0	0.1	0.4
1985	0.0	0.0	0.0	0.0	0.8	0.3	0.8	0.8	2.6	0.0	0.1	0.5
1986	0.0	0.0	0.0	0.0	0.7	0.4	0.8	0.8	2.7	0.0	0.1	0.6
1987	0.0	0.0	0.0	0.0	0.7	0.3	0.8	0.8	2.6	0.0	0.1	0.8
1988	0.0	0.0	0.0	0.0	0.7	0.4	0.8	0.8	2.7	0.0	0.1	0.8
1989	0.0	0.0	0.0	0.0	0.6	0.4	0.8	0.7	2.4	0.0	0.1	0.8
1990	0.0	0.0	0.0	0.0	0.5	0.4	0.8	0.7	2.3	0.0	0.1	0.7
1991	0.0	0.0	0.0	0.0	0.5	0.4	0.8	0.7	2.5	0.0	0.1	0.8
1992	0.0	0.0	0.0	0.0	0.5	0.3	0.8	0.7	2.3	0.0	0.1	0.8
1993	0.0	0.0	0.0	0.0	0.4	0.3	0.7	0.6	2.1	0.0	0.1	0.7
1994	0.0	0.0	0.0	0.0	0.4	0.3	0.7	0.6	1.9	0.0	0.1	0.7
1995	0.0	0.0	0.0	0.0	0.4	0.3	0.7	0.6	2.0	0.0	0.1	0.8
1996	0.0	0.0	0.0	0.0	0.3	0.3	0.7	0.6	1.9	0.0	0.0	0.7
1997	0.0	0.0	0.0	0.0	0.3	0.2	0.7	0.6	1.8	0.0	0.1	0.7
1998	0.0	0.0	0.0	0.0	0.3	0.2	0.7	0.6	1.9	0.0	0.1	0.5
1999	0.0	0.0	0.0	0.0	0.4	0.3	0.8	0.6	2.0	0.0	0.1	0.5
2000	0.0	0.0	0.0	0.0	0.4	0.3	0.8	0.7	2.1	0.0	0.1	0.5

Table 14. Carotene Contributed from Major Food Groups to the U.S. Food Supply, Selected Years—Continued

Year	Fruits			Vegetables					Fats and Oils						Sugars & sweeteners	Miscellaneous
	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Margarine	Shortening	Lard & beef tallow	Salad, cooking & other edible oils	Total		
								Percent								
1909-19	0.7	12.0	12.7	0.0	58.9	6.7	9.2	74.7	4.1	0.0	0.0	0.0	0.0	4.1	0.0	0.3
1920-29	1.0	11.4	12.4	0.0	59.2	5.4	10.6	75.2	3.8	0.0	0.0	0.0	0.0	3.8	0.0	1.6
1930-39	1.4	10.5	11.9	0.0	60.0	5.4	11.3	76.6	3.6	0.0	0.0	0.0	0.0	3.6	0.0	1.8
1940-49	2.1	10.3	12.4	0.0	60.0	6.0	11.8	77.7	2.6	0.0	0.0	0.0	0.0	2.6	0.0	1.5
1950-59	2.2	11.2	13.4	0.0	55.7	6.2	12.9	74.8	2.3	1.7	0.0	0.0	0.0	3.9	0.0	2.1
1960-69	1.9	10.2	12.1	0.0	57.4	5.2	12.7	75.3	1.7	2.8	0.0	0.0	0.0	4.6	0.0	2.8
1970	1.6	8.0	9.6	0.0	62.5	4.2	11.7	78.4	1.2	3.7	0.0	0.0	0.0	4.8	0.0	3.3
1971	1.7	7.6	9.2	0.0	63.8	4.2	11.6	79.6	1.1	3.5	0.0	0.0	0.0	4.6	0.0	2.8
1972	1.6	6.6	8.2	0.0	66.3	3.9	10.5	80.7	1.0	3.4	0.0	0.0	0.0	4.4	0.0	3.3
1973	1.5	6.2	7.7	0.0	68.1	3.7	10.1	81.8	0.9	3.3	0.0	0.0	0.0	4.2	0.0	3.2
1974	1.4	5.5	7.0	0.0	69.3	3.6	9.3	82.2	0.8	3.0	0.0	0.0	0.0	3.9	0.0	4.0
1975	1.5	5.6	7.2	0.0	69.9	3.8	9.3	83.0	0.8	3.1	0.0	0.0	0.0	3.9	0.0	3.1
1976	1.5	5.7	7.2	0.0	69.2	3.9	9.5	82.5	0.8	3.4	0.0	0.0	0.0	4.1	0.0	3.2
1977	1.6	6.3	7.9	0.0	67.0	4.0	10.3	81.3	0.8	3.4	0.0	0.0	0.0	4.2	0.0	3.5
1978	1.5	6.6	8.0	0.0	67.3	3.9	10.2	81.3	0.8	3.4	0.0	0.0	0.0	4.2	0.0	3.3
1979	1.4	6.0	7.3	0.0	68.8	3.9	9.6	82.3	0.8	3.2	0.0	0.0	0.0	4.0	0.0	3.4
1980	1.5	6.1	7.6	0.0	67.8	3.7	10.1	81.7	0.8	3.3	0.0	0.0	0.0	4.1	0.0	3.6
1981	1.4	6.0	7.4	0.0	68.4	3.7	9.5	81.6	0.8	3.2	0.0	0.0	0.0	3.9	0.0	4.1
1982	1.3	6.3	7.6	0.0	69.6	3.7	8.8	82.1	0.8	3.1	0.0	0.0	0.0	3.8	0.0	3.5
1983	1.6	6.1	7.7	0.0	68.5	3.9	8.9	81.4	0.9	3.0	0.0	0.0	0.0	3.9	0.0	3.9
1984	1.3	6.6	7.9	0.0	68.7	4.0	8.5	81.3	0.8	2.9	0.0	0.0	0.0	3.7	0.0	4.1
1985	1.3	6.6	7.8	0.0	67.5	3.9	9.2	80.6	0.8	3.0	0.0	0.0	0.0	3.8	0.0	4.5
1986	1.4	7.1	8.5	0.0	66.1	4.2	9.2	79.5	0.8	3.3	0.0	0.0	0.0	4.1	0.0	4.5
1987	1.3	7.0	8.3	0.0	68.1	3.9	8.4	80.4	0.8	2.9	0.0	0.0	0.0	3.7	0.0	4.2
1988	1.5	6.9	8.4	0.0	66.1	4.2	9.3	79.6	0.8	3.0	0.0	0.0	0.0	3.8	0.0	4.7
1989	1.2	7.2	8.4	0.0	66.6	4.1	8.9	79.6	0.7	2.8	0.0	0.0	0.0	3.5	0.0	5.2
1990	1.1	6.5	7.6	0.0	67.3	4.1	8.6	80.0	0.7	2.9	0.0	0.0	0.0	3.6	0.0	5.7
1991	1.1	6.6	7.7	0.0	66.4	4.2	8.9	79.5	0.7	2.9	0.0	0.0	0.0	3.7	0.0	5.8
1992	1.3	6.3	7.6	0.0	66.8	3.9	8.6	79.2	0.7	2.9	0.0	0.0	0.0	3.6	0.0	6.5
1993	1.2	5.7	6.9	0.0	70.0	3.6	7.8	81.4	0.7	2.6	0.0	0.0	0.0	3.3	0.0	5.6
1994	1.1	5.2	6.3	0.0	73.5	3.3	7.4	84.1	0.6	2.1	0.0	0.0	0.0	2.7	0.0	4.2
1995	1.2	5.5	6.7	0.0	72.0	3.5	7.8	83.3	0.6	2.1	0.0	0.0	0.0	2.7	0.0	4.4
1996	1.2	5.6	6.8	0.0	72.6	3.3	7.1	83.0	0.6	1.9	0.0	0.0	0.0	2.5	0.0	5.0
1997	1.1	5.5	6.6	0.0	74.3	3.0	6.9	84.2	0.5	1.7	0.0	0.0	0.0	2.2	0.0	4.4
1998	1.2	5.8	7.0	0.0	72.8	3.3	7.2	83.3	0.6	1.8	0.0	0.0	0.0	2.4	0.0	4.9
1999	1.1	6.4	7.5	0.0	71.1	3.5	8.1	82.7	0.7	1.8	0.0	0.0	0.0	2.5	0.0	4.7
2000	1.1	6.4	7.5	0.0	72.9	3.5	5.9	82.2	0.7	1.9	0.0	0.0	0.0	2.6	0.0	5.0

Table 15. Vitamin E Contributed from Major Food Groups to the U.S. Food Supply, Selected Years

Year	Meat, poultry, & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
						Percent						
1909-19	5.1	0.8	1.6	7.5	4.0	0.7	0.3	1.8	6.8	5.5	6.5	17.8
1920-29	4.6	0.7	1.5	6.9	4.0	0.6	0.3	2.3	7.2	5.3	7.0	13.8
1930-39	3.9	0.7	1.3	5.9	3.8	0.6	0.3	2.3	6.9	4.6	6.8	11.2
1940-49	4.2	0.8	1.2	6.2	4.1	0.6	0.4	2.1	7.1	4.9	7.8	9.0
1950-59	4.0	0.8	1.3	6.1	3.7	0.4	0.5	1.5	6.1	5.1	6.7	5.5
1960-69	3.6	1.0	1.1	5.8	2.8	0.2	0.5	1.1	4.7	4.0	6.8	3.5
1970	3.3	1.0	1.0	5.4	2.1	0.4	0.5	0.9	3.9	3.4	6.3	2.7
1971	3.5	1.1	1.0	5.6	2.1	0.4	0.5	0.9	4.0	3.5	6.5	2.6
1972	3.2	1.1	1.1	5.3	2.0	0.4	0.6	0.8	3.8	3.3	6.5	2.0
1973	2.8	1.0	1.1	4.9	1.8	0.4	0.6	0.8	3.6	3.1	6.3	2.0
1974	3.0	1.0	1.0	5.0	1.7	0.4	0.6	0.8	3.5	3.0	5.9	3.5
1975	2.8	1.0	1.0	4.8	1.6	0.4	0.6	0.8	3.4	2.9	6.4	3.5
1976	2.9	1.0	1.0	4.9	1.5	0.4	0.6	0.8	3.4	2.8	6.0	3.4
1977	2.9	1.0	1.0	5.0	1.5	0.5	0.7	0.8	3.4	2.8	6.1	3.6
1978	2.8	1.1	1.1	4.9	1.4	0.5	0.7	0.8	3.3	2.8	6.1	3.5
1979	2.8	1.1	1.0	4.9	1.3	0.5	0.7	0.8	3.3	2.8	6.3	3.5
1980	2.9	1.1	1.0	5.0	1.3	0.5	0.7	0.8	3.2	2.8	5.4	3.6
1981	2.8	1.2	1.0	4.9	1.2	0.5	0.7	0.8	3.2	2.7	6.0	3.6
1982	2.6	1.1	0.9	4.6	1.1	0.5	0.8	0.8	3.2	2.6	6.6	3.5
1983	2.6	1.1	0.9	4.6	1.1	0.5	0.8	0.8	3.1	2.5	6.4	3.5
1984	2.5	1.1	1.0	4.6	1.0	0.5	0.8	0.8	3.1	2.5	6.4	3.5
1985	2.4	1.1	1.0	4.5	0.9	0.5	0.8	0.8	3.0	2.4	6.8	3.6
1986	2.4	1.1	1.0	4.5	0.9	0.5	0.8	0.8	3.0	2.3	6.1	3.7
1987	2.3	1.2	1.0	4.5	0.8	0.5	0.8	0.8	3.0	2.3	6.1	4.0
1988	2.2	1.2	1.0	4.4	0.8	0.5	0.8	0.8	2.9	2.2	6.4	4.0
1989	2.2	1.3	1.0	4.6	0.7	0.6	0.8	0.8	2.9	2.1	6.4	4.2
1990	2.1	1.3	1.0	4.4	0.7	0.6	0.8	0.8	2.8	2.1	6.1	4.4
1991	1.9	1.3	1.0	4.2	0.6	0.6	0.8	0.7	2.8	2.0	5.9	4.3
1992	1.9	1.3	0.9	4.2	0.6	0.5	0.9	0.7	2.7	2.0	5.8	4.6
1993	1.8	1.3	0.9	4.1	0.5	0.5	0.8	0.7	2.6	1.9	5.5	4.5
1994	1.9	1.4	1.0	4.3	0.5	0.5	0.9	0.7	2.7	2.0	5.5	4.5
1995	2.0	1.4	1.0	4.4	0.5	0.6	0.9	0.7	2.8	2.0	5.3	4.4
1996	2.0	1.5	1.0	4.4	0.5	0.5	0.9	0.8	2.8	2.1	5.4	4.3
1997	1.9	1.4	1.0	4.3	0.5	0.5	1.0	0.8	2.7	2.1	5.5	4.2
1998	2.0	1.5	0.9	4.4	0.5	0.5	1.0	0.8	2.7	2.1	5.7	4.7
1999	1.9	1.5	0.9	4.3	0.5	0.5	0.9	0.7	2.7	2.1	6.0	4.7
2000	1.8	1.3	0.9	4.0	0.4	0.4	0.9	0.7	2.4	1.9	5.3	4.3

Table 15. Vitamin E Contributed from Major Food Groups to the U.S. Food Supply, Selected Years—Continued

Year	Fruits			Vegetables					Fats and Oils						Sugars & sweeteners	Miscellaneous
	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Margarine	Shortening	Lard & beef tallow	Salad, cooking & other edible oils	Total		
								Percent								
1909-19	0.5	7.1	7.6	0.2	1.9	3.4	4.5	9.9	4.3	2.5	19.8	2.2	9.5	38.3	0.0	0.1
1920-29	0.7	6.6	7.3	0.1	2.7	2.9	4.8	10.6	4.0	3.3	15.6	2.3	16.3	41.5	0.0	0.4
1930-39	0.9	5.8	6.7	0.1	2.9	3.1	4.7	10.8	3.8	3.9	17.7	2.0	19.2	46.5	0.0	0.4
1940-49	1.2	5.1	6.2	0.1	2.7	4.0	4.4	11.1	2.4	6.1	14.5	1.8	22.5	47.3	0.0	0.3
1950-59	1.1	4.3	5.3	0.1	1.9	4.0	3.6	9.6	1.6	11.9	14.0	1.5	26.2	55.3	0.0	0.3
1960-69	0.9	3.5	4.4	0.2	1.4	3.6	3.1	8.3	1.1	12.7	15.0	0.8	32.6	62.3	0.0	0.4
1970	0.9	3.2	4.1	0.3	1.1	4.0	2.7	8.1	0.8	12.3	17.0	0.5	35.1	65.7	0.0	0.4
1971	1.0	3.2	4.2	0.3	1.1	4.4	2.8	8.6	0.8	12.3	16.1	0.5	35.1	64.7	0.0	0.5
1972	1.0	2.8	3.8	0.3	1.1	4.1	2.6	8.1	0.7	12.3	17.0	0.4	36.1	66.6	0.0	0.5
1973	1.0	2.8	3.8	0.3	1.1	3.6	2.6	7.6	0.7	12.1	16.7	0.3	38.6	68.4	0.0	0.4
1974	1.0	2.9	3.9	0.3	1.1	3.9	2.5	7.9	0.6	11.8	16.3	0.3	37.7	66.8	0.0	0.5
1975	1.1	3.0	4.1	0.3	1.1	3.9	2.5	7.9	0.7	12.1	17.0	0.3	36.7	66.7	0.0	0.4
1976	1.1	2.9	3.9	0.3	1.1	4.0	2.5	7.9	0.6	12.8	16.0	0.3	37.6	67.2	0.0	0.5
1977	1.1	3.0	4.1	0.3	1.1	4.0	2.6	7.9	0.6	12.4	15.5	0.2	37.7	66.5	0.0	0.4
1978	0.9	3.0	3.9	0.3	1.0	3.6	2.5	7.4	0.6	12.0	15.8	0.2	38.9	67.6	0.0	0.4
1979	0.9	2.9	3.9	0.3	1.1	3.9	2.4	7.7	0.6	11.8	16.2	0.3	38.1	67.1	0.0	0.4
1980	1.0	3.1	4.1	0.2	1.1	3.7	2.5	7.5	0.6	11.9	15.9	0.5	39.0	67.9	0.0	0.4
1981	0.9	3.0	3.9	0.3	1.1	3.5	2.4	7.3	0.6	11.7	16.3	0.5	38.9	67.9	0.0	0.5
1982	0.9	3.0	3.9	0.3	1.2	3.5	2.3	7.2	0.6	11.5	16.6	0.5	38.6	67.9	0.0	0.4
1983	1.1	2.8	3.8	0.3	1.1	3.5	2.2	7.0	0.6	10.6	16.2	0.6	40.4	68.4	0.0	0.5
1984	0.9	3.0	3.8	0.3	1.1	3.8	2.2	7.4	0.6	10.3	18.3	0.5	38.4	68.2	0.0	0.5
1985	0.9	2.8	3.7	0.3	1.1	3.5	2.1	7.0	0.6	10.3	18.6	0.6	38.4	68.5	0.0	0.5
1986	0.9	2.9	3.8	0.3	1.1	3.5	2.1	7.0	0.6	10.8	17.9	0.5	39.2	69.1	0.0	0.5
1987	0.9	3.0	3.9	0.3	1.1	3.6	2.0	6.9	0.6	10.0	17.7	0.3	40.1	68.8	0.0	0.5
1988	0.9	2.9	3.7	0.2	1.1	3.3	2.0	6.6	0.5	9.4	17.5	0.3	41.7	69.4	0.0	0.5
1989	0.8	3.0	3.8	0.2	1.1	3.7	2.0	7.1	0.5	9.5	18.1	0.2	40.0	68.3	0.0	0.5
1990	0.7	2.8	3.4	0.2	1.1	3.9	2.0	7.2	0.5	10.0	19.0	0.3	39.2	69.0	0.0	0.6
1991	0.7	2.6	3.3	0.3	1.0	3.9	1.9	7.1	0.5	9.4	19.7	0.4	39.8	69.8	0.0	0.6
1992	0.9	2.7	3.6	0.2	1.1	3.7	1.9	6.9	0.5	9.6	19.4	0.6	39.5	69.5	0.0	0.6
1993	0.9	2.6	3.5	0.3	1.1	3.7	1.9	6.9	0.5	9.5	21.7	0.5	38.2	70.4	0.0	0.6
1994	0.9	2.7	3.6	0.3	1.3	3.8	2.0	7.4	0.5	8.7	21.3	0.6	38.4	69.5	0.0	0.5
1995	1.0	2.5	3.5	0.3	1.3	3.8	2.0	7.4	0.5	8.3	20.2	0.7	40.0	69.7	0.0	0.5
1996	1.1	2.7	3.8	0.3	1.4	3.8	2.0	7.5	0.5	8.3	20.5	0.7	39.0	69.1	0.0	0.6
1997	1.0	2.8	3.7	0.3	1.5	3.7	2.0	7.5	0.5	7.7	19.0	0.6	41.6	69.4	0.0	0.6
1998	1.0	2.7	3.7	0.3	1.4	3.8	2.0	7.5	0.5	7.5	19.1	0.8	40.6	68.5	0.0	0.6
1999	0.9	2.7	3.6	0.3	1.4	3.5	2.0	7.2	0.5	6.9	19.0	0.9	41.6	68.8	0.0	0.6
2000	0.8	2.4	3.2	0.2	1.8	3.2	1.5	6.7	0.5	6.6	19.1	0.9	44.5	71.6	0.0	0.5

Table 16. Vitamin C Contributed from Major Food Groups to the U.S. Food Supply, Selected Years

Year	Meat, poultry, & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
						Percent						
1909-19	1.5	0.4	0.1	2.1	2.5	0.8	0.0	0.4	3.7	0.0	0.0	0.0
1920-29	1.4	0.4	0.1	1.9	3.1	0.6	0.0	0.6	4.3	0.0	0.0	0.1
1930-39	1.2	0.4	0.1	1.7	3.2	0.5	0.0	0.8	4.5	0.0	0.0	0.0
1940-49	1.4	0.4	0.1	1.9	3.4	0.4	0.0	1.0	4.8	0.0	0.0	0.0
1950-59	1.5	0.7	0.1	2.3	3.6	0.3	0.0	1.2	5.1	0.0	0.0	0.0
1960-69	1.5	0.9	0.1	2.5	3.1	0.6	0.0	1.1	4.8	0.0	0.0	0.0
1970	1.4	0.8	0.1	2.4	2.4	0.8	0.0	0.9	4.2	0.0	0.0	0.0
1971	1.4	0.8	0.1	2.3	2.3	0.8	0.0	0.9	4.1	0.0	0.0	0.0
1972	1.4	0.8	0.1	2.3	2.3	0.9	0.0	0.8	4.0	0.0	0.0	0.0
1973	1.3	0.8	0.1	2.2	2.2	0.9	0.0	0.9	4.0	0.0	0.0	0.0
1974	1.3	0.7	0.1	2.1	1.9	0.9	0.0	0.7	3.5	0.0	0.0	4.5
1975	1.2	0.7	0.1	2.0	1.8	0.8	0.0	0.7	3.2	0.0	0.0	4.4
1976	1.2	0.7	0.1	2.0	1.7	1.0	0.0	0.7	3.4	0.0	0.0	4.5
1977	1.2	0.7	0.1	2.1	1.7	1.0	0.0	0.6	3.3	0.0	0.0	4.6
1978	1.2	0.8	0.1	2.1	1.7	1.0	0.0	0.7	3.4	0.0	0.0	4.8
1979	1.2	0.8	0.1	2.1	1.6	1.0	0.0	0.7	3.3	0.0	0.0	5.2
1980	1.2	0.8	0.1	2.0	1.4	1.1	0.0	0.6	3.1	0.0	0.0	5.1
1981	1.2	0.8	0.1	2.1	1.4	1.1	0.0	0.6	3.1	0.0	0.0	5.3
1982	1.1	0.8	0.1	2.0	1.3	1.1	0.0	0.6	3.0	0.0	0.0	5.3
1983	1.1	0.7	0.1	1.9	1.3	1.1	0.0	0.6	2.9	0.0	0.0	5.2
1984	1.1	0.7	0.1	2.0	1.2	1.1	0.0	0.6	3.0	0.0	0.0	5.4
1985	1.1	0.7	0.2	2.0	1.2	1.2	0.0	0.6	3.0	0.0	0.0	5.5
1986	1.0	0.7	0.1	1.9	1.1	1.2	0.0	0.6	2.9	0.0	0.0	5.4
1987	1.0	0.8	0.2	2.0	1.1	1.2	0.0	0.7	3.0	0.0	0.0	5.5
1988	1.0	0.8	0.2	1.9	1.0	1.3	0.0	0.6	2.9	0.0	0.0	5.9
1989	1.0	0.8	0.2	2.0	0.9	1.4	0.0	0.6	2.9	0.0	0.0	6.2
1990	1.0	0.8	0.2	2.0	0.9	1.5	0.0	0.7	3.0	0.0	0.0	6.9
1991	0.9	0.9	0.2	2.0	0.8	1.4	0.0	0.6	2.9	0.0	0.0	7.1
1992	0.9	0.8	0.2	1.9	0.7	1.3	0.0	0.6	2.7	0.0	0.0	7.1
1993	0.9	0.8	0.2	1.9	0.7	1.3	0.0	0.6	2.7	0.0	0.0	5.5
1994	0.9	0.8	0.1	1.9	0.7	1.3	0.0	0.7	2.7	0.0	0.0	4.9
1995	0.9	0.8	0.2	1.9	0.7	1.3	0.0	0.6	2.6	0.0	0.0	4.7
1996	0.9	0.8	0.1	1.8	0.6	1.3	0.0	0.6	2.5	0.0	0.0	4.1
1997	0.9	0.8	0.1	1.9	0.6	1.3	0.0	0.6	2.6	0.0	0.0	4.0
1998	0.9	0.8	0.2	1.9	0.6	1.3	0.0	0.6	2.5	0.0	0.1	4.0
1999	0.9	0.9	0.2	2.0	0.6	1.3	0.0	0.6	2.4	0.0	0.1	4.3
2000	0.9	0.9	0.2	2.0	0.6	1.3	0.0	0.6	2.5	0.0	0.1	4.3

Table 16. Vitamin C Contributed from Major Food Groups to the U.S. Food Supply, Selected Years—Continued

Year	Fruits			Vegetables					Fats and Oils						Sugars & sweeteners	Miscellaneous
	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Margarine	Shortening	Lard & beef tallow	Salad, cooking & other edible oils	Total		
								Percent								
1909-19	8.7	14.8	23.5	31.6	8.4	10.2	20.4	70.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1920-29	12.1	14.7	26.7	26.2	9.8	8.7	22.1	66.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
1930-39	16.5	13.0	29.6	23.0	10.4	9.4	21.2	63.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
1940-49	23.4	10.9	34.3	20.3	9.4	10.1	18.8	58.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
1950-59	24.6	12.1	36.7	20.5	8.0	10.2	16.9	55.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
1960-69	24.0	14.2	38.2	20.7	7.7	8.7	15.4	52.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9
1970	25.5	14.5	40.0	18.5	6.4	9.2	14.7	48.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5
1971	26.8	14.3	41.2	17.4	6.4	9.5	14.6	47.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
1972	28.0	13.9	41.9	17.6	6.5	9.2	14.0	47.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5
1973	28.0	13.8	41.8	17.3	6.9	8.8	14.6	47.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5
1974	27.6	13.0	40.6	16.1	6.7	8.4	13.7	44.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
1975	28.5	12.9	41.4	16.4	6.6	8.3	13.4	44.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
1976	28.7	12.6	41.3	16.2	6.7	8.4	13.3	44.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
1977	28.4	13.1	41.5	15.8	6.6	8.3	13.6	44.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
1978	26.7	14.0	40.7	15.8	6.6	8.4	13.9	44.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
1979	26.3	13.7	40.0	15.7	7.0	8.5	13.8	45.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
1980	27.9	13.6	41.5	15.2	6.9	8.6	13.2	44.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
1981	26.7	14.0	40.6	15.4	7.3	8.3	13.5	44.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
1982	26.4	14.6	41.0	15.2	7.7	8.2	13.3	44.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
1983	29.5	13.8	43.2	15.0	7.3	7.8	12.4	42.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
1984	25.1	15.1	40.2	15.5	8.1	8.5	12.9	45.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
1985	25.8	15.2	41.0	15.1	8.3	7.9	12.9	44.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
1986	27.3	15.2	42.4	15.1	8.1	7.7	12.3	43.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
1987	26.7	15.9	42.6	15.1	8.2	7.6	11.7	42.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
1988	27.0	15.5	42.5	14.7	8.6	7.4	11.8	42.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
1989	24.4	16.8	41.2	15.1	8.7	7.9	11.8	43.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
1990	22.0	16.8	38.8	15.0	8.8	8.5	12.4	44.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5
1991	22.6	16.3	38.8	15.9	8.7	8.3	11.8	44.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
1992	26.5	15.5	42.0	14.4	8.8	7.5	11.3	42.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
1993	26.8	15.3	42.1	15.1	9.1	7.8	11.6	43.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
1994	26.8	15.5	42.3	14.8	10.1	7.7	11.4	44.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
1995	27.4	15.3	42.7	14.9	9.9	7.8	11.2	43.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
1996	28.7	15.4	44.2	15.0	10.2	7.4	10.7	43.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
1997	27.1	16.0	43.0	15.1	10.4	7.5	11.3	44.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
1998	29.0	15.1	44.1	14.6	10.0	7.6	11.1	43.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
1999	26.4	16.1	42.5	14.5	10.9	7.6	11.5	44.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
2000	25.8	16.1	41.9	15.0	12.7	7.6	9.8	45.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2

Table 17. Thiamin Contributed from Major Food Groups to the U.S. Food Supply, Selected Years

Year	Meat, poultry, & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
						Percent						
1909-19	30.3	0.7	0.6	31.6	5.2	1.4	0.1	0.8	7.5	1.6	6.1	31.4
1920-29	31.7	0.7	0.7	33.2	5.9	1.2	0.1	1.3	8.5	1.7	6.1	27.4
1930-39	30.5	0.8	0.6	31.9	6.3	1.2	0.1	2.0	9.6	1.7	7.3	25.3
1940-49	27.4	0.8	0.4	28.7	5.9	0.8	0.1	2.2	8.9	1.5	6.0	35.9
1950-59	25.7	1.1	0.4	27.1	5.8	0.6	0.2	2.7	9.2	1.7	5.5	39.9
1960-69	23.9	1.3	0.3	25.6	5.0	1.0	0.2	2.8	8.9	1.4	5.4	42.8
1970	23.4	1.4	0.3	25.1	4.2	1.6	0.2	2.8	8.9	1.3	5.3	42.7
1971	24.2	1.4	0.3	25.8	4.0	1.6	0.2	2.8	8.6	1.3	5.2	42.8
1972	22.9	1.5	0.3	24.7	3.9	1.8	0.2	2.7	8.7	1.3	5.5	43.0
1973	20.7	1.4	0.3	22.5	3.7	1.8	0.2	2.9	8.6	1.2	6.0	44.9
1974	18.8	1.2	0.3	20.3	3.0	1.5	0.2	2.2	6.9	1.0	4.6	52.9
1975	15.8	1.1	0.3	17.2	2.9	1.3	0.2	2.1	6.6	1.0	5.1	55.1
1976	16.2	1.2	0.3	17.7	2.7	1.6	0.2	2.2	6.7	0.9	4.9	54.9
1977	16.8	1.2	0.3	18.3	2.6	1.7	0.2	2.1	6.6	0.9	4.9	54.7
1978	16.8	1.3	0.3	18.4	2.6	1.6	0.2	2.2	6.6	1.0	4.9	54.8
1979	17.6	1.3	0.3	19.2	2.4	1.6	0.2	2.2	6.4	1.0	5.0	54.7
1980	18.5	1.3	0.3	20.1	2.2	1.6	0.2	2.1	6.2	0.9	4.4	54.6
1981	18.0	1.4	0.3	19.6	2.1	1.6	0.2	2.0	6.0	0.9	4.7	54.9
1982	16.5	1.4	0.3	18.2	2.1	1.7	0.3	2.0	6.0	0.9	5.1	56.0
1983	17.2	1.3	0.3	18.8	2.0	1.7	0.3	2.1	6.0	0.9	5.0	55.2
1984	17.1	1.4	0.3	18.8	1.9	1.7	0.3	2.2	6.0	0.9	4.7	55.4
1985	16.7	1.4	0.3	18.4	1.8	1.7	0.3	2.2	5.9	0.8	5.1	56.0
1986	15.9	1.4	0.3	17.6	1.7	1.8	0.3	2.2	5.9	0.8	5.0	56.8
1987	15.6	1.5	0.3	17.4	1.6	1.8	0.3	2.1	5.8	0.8	4.4	58.3
1988	16.0	1.5	0.3	17.7	1.5	1.7	0.3	2.0	5.5	0.8	4.8	58.5
1989	15.9	1.5	0.3	17.7	1.3	1.9	0.3	1.9	5.4	0.7	4.6	58.5
1990	14.9	1.5	0.3	16.8	1.2	1.9	0.3	2.1	5.4	0.7	4.4	59.9
1991	15.5	1.6	0.3	17.4	1.2	1.9	0.3	2.0	5.3	0.7	4.6	59.3
1992	15.7	1.6	0.3	17.6	1.1	1.9	0.3	2.0	5.2	0.7	4.5	59.2
1993	15.4	1.6	0.3	17.3	1.0	1.8	0.3	1.9	5.1	0.7	4.4	59.6
1994	15.5	1.6	0.3	17.4	1.0	1.8	0.3	2.1	5.2	0.7	4.4	59.1
1995	15.7	1.6	0.3	17.7	1.0	1.8	0.3	2.0	5.1	0.7	4.4	59.0
1996	14.7	1.6	0.3	16.6	0.9	1.8	0.3	2.0	5.0	0.7	4.2	59.6
1997	14.6	1.6	0.3	16.5	0.9	1.8	0.3	2.0	5.0	0.7	4.4	59.9
1998	15.4	1.6	0.3	17.3	0.9	1.8	0.3	2.0	5.0	0.7	4.7	58.8
1999	15.6	1.7	0.3	17.7	0.9	1.8	0.3	1.8	4.7	0.7	4.7	58.8
2000	15.4	1.7	0.3	17.5	0.9	1.7	0.3	1.8	4.7	0.7	4.6	59.4

Table 17. Thiamin Contributed from Major Food Groups to the U.S. Food Supply, Selected Years—Continued

Year	Fruits			Vegetables					Fats and Oils						Sugars & sweeteners	Miscellaneous
	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Margarine	Shortening	Lard & beef tallow	Salad, cooking & other edible oils	Total		
								Percent								
1909-19	0.8	3.1	3.8	8.9	1.5	1.8	5.1	17.3	0.1	0.0	0.0	0.0	0.0	0.1	0.6	0.1
1920-29	1.1	3.7	4.8	7.9	1.8	1.6	6.1	17.4	0.1	0.0	0.0	0.0	0.0	0.1	0.5	0.3
1930-39	1.7	3.6	5.3	7.3	2.0	1.9	6.7	18.0	0.1	0.0	0.0	0.0	0.0	0.1	0.4	0.3
1940-49	2.0	2.5	4.5	5.2	1.5	1.7	5.3	13.7	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.3
1950-59	2.0	2.4	4.4	4.6	1.1	1.6	4.4	11.7	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.3
1960-69	2.0	2.1	4.1	4.9	0.9	1.3	4.0	11.2	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.4
1970	2.3	1.9	4.2	5.5	0.8	1.5	3.9	11.7	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.6
1971	2.4	1.9	4.2	5.2	0.8	1.6	3.7	11.3	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.6
1972	2.6	1.8	4.3	5.4	0.8	1.6	3.8	11.5	0.0	0.1	0.0	0.0	0.0	0.1	0.2	0.6
1973	2.5	1.8	4.3	5.4	0.8	1.5	3.9	11.6	0.0	0.1	0.0	0.0	0.0	0.1	0.2	0.6
1974	2.2	1.5	3.7	4.6	0.7	1.3	3.2	9.8	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.5
1975	2.4	1.6	4.0	4.9	0.7	1.3	3.3	10.3	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.5
1976	2.4	1.5	3.9	5.0	0.7	1.3	3.2	10.2	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.5
1977	2.4	1.6	4.0	4.7	0.7	1.3	3.2	9.8	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.5
1978	2.2	1.6	3.8	4.7	0.7	1.3	3.2	9.7	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.5
1979	2.1	1.6	3.7	4.4	0.7	1.3	3.1	9.4	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.5
1980	2.3	1.6	3.9	4.2	0.7	1.3	3.1	9.2	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.5
1981	2.1	1.7	3.8	4.4	0.7	1.2	3.0	9.3	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.5
1982	2.1	1.8	3.9	4.3	0.7	1.2	3.0	9.3	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.5
1983	2.4	1.7	4.2	4.3	0.7	1.2	2.9	9.2	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.5
1984	2.0	1.9	3.9	4.4	0.7	1.3	3.0	9.5	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.6
1985	2.0	1.9	3.9	4.3	0.7	1.2	2.9	9.2	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.6
1986	2.2	1.9	4.1	4.4	0.7	1.2	2.8	9.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.5
1987	2.0	1.9	4.0	4.2	0.7	1.2	2.6	8.6	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.5
1988	2.1	1.8	3.9	4.0	0.6	1.1	2.6	8.2	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.5
1989	1.9	1.9	3.8	4.1	0.7	1.2	2.6	8.6	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.5
1990	1.6	1.8	3.4	4.0	0.7	1.2	2.6	8.5	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.6
1991	1.6	1.7	3.3	4.3	0.6	1.2	2.5	8.7	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.6
1992	1.9	1.8	3.7	4.1	0.7	1.1	2.5	8.4	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.6
1993	1.9	1.7	3.6	4.3	0.7	1.2	2.5	8.6	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.5
1994	1.9	1.7	3.7	4.3	0.8	1.2	2.5	8.8	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5
1995	2.0	1.7	3.7	4.3	0.8	1.2	2.5	8.8	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5
1996	2.2	1.7	3.9	4.6	0.9	1.1	2.5	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6
1997	2.0	1.7	3.7	4.5	0.9	1.1	2.5	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6
1998	2.1	1.7	3.8	4.5	0.8	1.2	2.6	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6
1999	1.9	1.8	3.7	4.2	0.8	1.1	2.7	8.9	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6
2000	1.8	1.7	3.5	4.4	1.0	1.1	2.4	8.8	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6

Table 18. Riboflavin Contributed from Major Food Groups to the U.S. Food Supply, Selected Years

Year	Meat, poultry, & fish				Dairy products							
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total	Eggs	Legumes, nuts & soy	Grain products
						Percent						
1909-19	20.8	1.8	0.9	23.5	23.6	5.6	1.1	3.8	34.0	11.1	1.6	14.3
1920-29	19.4	1.8	0.9	22.1	25.4	4.7	1.2	5.7	37.0	11.6	1.6	11.9
1930-39	18.1	1.8	0.9	20.8	26.1	4.3	1.4	8.1	39.9	11.1	1.7	10.2
1940-49	17.7	2.1	0.6	20.4	26.0	3.0	1.4	9.3	39.7	10.4	1.7	14.0
1950-59	16.8	3.3	0.6	20.8	24.7	2.1	1.8	10.2	38.8	11.2	1.4	15.7
1960-69	17.6	3.8	0.6	22.0	22.4	3.8	2.3	10.4	38.9	10.2	1.5	16.5
1970	17.8	3.2	0.6	21.6	19.2	6.1	2.6	10.5	38.4	9.5	1.5	18.4
1971	18.0	3.2	0.5	21.8	18.6	6.4	2.7	10.4	38.2	9.5	1.5	18.7
1972	17.6	3.4	0.6	21.5	18.2	6.9	2.9	10.2	38.2	9.4	1.6	18.9
1973	16.4	3.2	0.6	20.2	17.5	7.0	3.1	10.8	38.4	9.0	1.7	20.1
1974	15.1	2.7	0.5	18.3	14.2	6.1	2.7	8.6	31.6	7.6	1.3	32.0
1975	14.3	2.7	0.5	17.5	14.0	5.7	2.7	8.3	30.7	7.5	1.5	33.4
1976	14.6	2.8	0.5	17.8	13.0	6.8	2.8	8.3	31.0	7.1	1.5	33.4
1977	14.6	2.8	0.5	17.9	12.6	7.1	3.0	8.3	30.9	7.1	1.5	33.4
1978	14.2	2.9	0.5	17.6	12.3	7.1	3.1	8.4	30.9	7.3	1.5	33.6
1979	13.8	3.0	0.5	17.3	11.6	7.2	3.1	8.6	30.6	7.3	1.5	34.0
1980	14.1	3.1	0.4	17.6	11.1	7.4	3.2	8.5	30.2	7.2	1.4	34.2
1981	14.1	3.2	0.5	17.8	10.7	7.6	3.3	8.1	29.8	7.1	1.5	34.4
1982	13.4	3.1	0.5	17.0	10.2	7.7	3.6	8.3	29.9	7.2	1.6	34.8
1983	13.8	3.1	0.5	17.3	9.9	7.9	3.7	8.5	29.9	7.0	1.6	34.7
1984	13.6	3.0	0.5	17.2	9.5	7.8	3.8	8.8	29.9	6.9	1.6	34.8
1985	13.3	3.0	0.5	16.8	9.0	8.0	3.9	8.8	29.8	6.6	1.7	35.5
1986	13.1	3.1	0.5	16.7	8.4	8.4	3.9	9.2	29.9	6.5	1.6	35.7
1987	12.4	3.3	0.5	16.2	7.8	8.3	3.9	8.7	28.8	6.3	1.4	38.1
1988	12.4	3.3	0.5	16.2	7.4	8.4	3.8	8.5	28.1	6.1	1.6	38.9
1989	12.4	3.4	0.5	16.3	6.9	9.1	3.8	8.1	27.9	5.9	1.5	39.0
1990	11.8	3.4	0.5	15.7	6.2	9.2	3.8	8.7	27.9	5.7	1.5	39.9
1991	11.6	3.6	0.5	15.6	6.0	9.4	3.9	8.4	27.7	5.7	1.5	40.1
1992	11.7	3.6	0.5	15.8	5.7	9.3	4.0	8.6	27.6	5.7	1.5	39.9
1993	11.5	3.7	0.5	15.6	5.5	9.2	4.0	8.6	27.3	5.7	1.5	40.2
1994	11.7	3.7	0.5	15.9	5.3	9.2	4.0	9.2	27.8	5.7	1.5	39.4
1995	12.2	3.7	0.5	16.5	5.2	9.4	4.2	8.7	27.5	5.7	1.5	39.1
1996	11.7	3.8	0.5	16.0	5.1	9.3	4.2	8.8	27.5	5.7	1.5	39.4
1997	11.6	3.8	0.5	15.9	5.0	9.3	4.3	8.8	27.4	5.8	1.5	39.4
1998	11.9	3.8	0.5	16.2	4.9	9.2	4.3	8.8	27.2	5.9	1.6	38.9
1999	12.0	4.0	0.5	16.4	4.9	9.0	4.4	8.1	26.5	6.1	1.7	39.1
2000	12.3	3.9	0.5	16.7	4.8	8.8	4.5	8.2	26.3	6.1	1.6	39.2

Table 18. Riboflavin Contributed from Major Food Groups to the U.S. Food Supply, Selected Years—Continued

Year	Fruits			Vegetables					Fats and Oils						Sugars & sweeteners	Miscellaneous
	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Margarine	Shortening	Lard & beef tallow	Salad, cooking & other edible oils	Total		
								Percent								
1909-19	0.3	2.8	3.2	2.8	2.3	1.2	3.5	9.8	0.3	0.0	0.0	0.0	0.0	0.4	1.0	1.1
1920-29	0.5	3.0	3.4	2.4	2.4	1.0	4.0	9.9	0.4	0.0	0.0	0.0	0.0	0.4	1.0	1.2
1930-39	0.7	2.9	3.5	2.1	2.7	1.2	4.2	10.2	0.4	0.0	0.0	0.0	0.0	0.4	1.0	1.2
1940-49	0.8	2.1	2.9	1.6	2.7	1.2	3.5	9.0	0.2	0.1	0.0	0.0	0.0	0.3	0.7	1.0
1950-59	0.6	1.9	2.5	1.3	2.5	1.1	2.9	7.8	0.1	0.1	0.0	0.0	0.0	0.3	0.6	0.9
1960-69	0.5	1.8	2.4	1.3	1.4	1.0	2.8	6.4	0.1	0.2	0.0	0.0	0.0	0.3	0.7	1.1
1970	0.6	1.7	2.3	1.2	0.9	1.1	2.7	5.9	0.1	0.2	0.0	0.0	0.0	0.3	0.7	1.2
1971	0.6	1.7	2.3	1.2	0.8	1.1	2.7	5.9	0.1	0.2	0.0	0.0	0.0	0.2	0.7	1.2
1972	0.6	1.6	2.2	1.2	0.9	1.1	2.7	5.9	0.1	0.2	0.0	0.0	0.0	0.3	0.7	1.4
1973	0.6	1.7	2.3	1.2	0.9	1.1	2.8	6.0	0.1	0.2	0.0	0.0	0.0	0.3	0.7	1.3
1974	0.6	1.5	2.0	1.0	0.8	0.9	2.4	5.1	0.1	0.1	0.0	0.0	0.0	0.2	0.6	1.2
1975	0.6	1.5	2.1	1.1	0.8	1.0	2.5	5.4	0.1	0.2	0.0	0.0	0.0	0.2	0.6	1.1
1976	0.6	1.5	2.1	1.1	0.8	1.0	2.4	5.2	0.1	0.2	0.0	0.0	0.0	0.2	0.6	1.1
1977	0.6	1.5	2.1	1.0	0.7	1.0	2.5	5.2	0.1	0.2	0.0	0.0	0.0	0.2	0.6	1.1
1978	0.6	1.6	2.1	1.0	0.7	0.9	2.5	5.1	0.1	0.2	0.0	0.0	0.0	0.2	0.6	1.1
1979	0.5	1.6	2.1	1.0	0.8	1.0	2.5	5.2	0.1	0.2	0.0	0.0	0.0	0.2	0.6	1.0
1980	0.6	1.6	2.2	1.0	0.7	1.0	2.5	5.2	0.1	0.2	0.0	0.0	0.0	0.2	0.6	1.1
1981	0.5	1.7	2.2	1.0	0.8	1.0	2.5	5.2	0.1	0.2	0.0	0.0	0.0	0.2	0.7	1.1
1982	0.5	1.7	2.3	1.0	0.8	1.0	2.5	5.3	0.1	0.2	0.0	0.0	0.0	0.2	0.7	1.1
1983	0.6	1.7	2.3	1.0	0.8	1.0	2.4	5.2	0.1	0.1	0.0	0.0	0.0	0.2	0.7	1.1
1984	0.5	1.8	2.3	1.0	0.8	1.0	2.4	5.3	0.1	0.1	0.0	0.0	0.0	0.2	0.7	1.2
1985	0.5	1.8	2.3	1.0	0.8	1.0	2.4	5.2	0.1	0.1	0.0	0.0	0.0	0.2	0.7	1.2
1986	0.5	1.8	2.3	1.0	0.7	1.0	2.4	5.1	0.1	0.2	0.0	0.0	0.0	0.2	0.7	1.2
1987	0.5	1.9	2.3	0.9	0.7	0.9	2.2	4.8	0.1	0.1	0.0	0.0	0.0	0.2	0.7	1.2
1988	0.5	1.8	2.3	0.9	0.7	0.9	2.2	4.8	0.1	0.1	0.0	0.0	0.0	0.2	0.7	1.2
1989	0.5	1.8	2.3	1.0	0.7	1.0	2.3	5.0	0.1	0.1	0.0	0.0	0.0	0.2	0.7	1.2
1990	0.4	1.7	2.2	0.9	0.7	1.0	2.3	4.9	0.1	0.1	0.0	0.0	0.0	0.2	0.7	1.3
1991	0.4	1.8	2.1	1.0	0.7	1.0	2.2	5.0	0.1	0.1	0.0	0.0	0.0	0.2	0.7	1.3
1992	0.5	1.8	2.3	1.0	0.7	1.0	2.3	4.9	0.1	0.1	0.0	0.0	0.0	0.2	0.7	1.4
1993	0.5	1.8	2.3	1.0	0.8	1.0	2.2	5.0	0.1	0.1	0.0	0.0	0.0	0.2	0.7	1.4
1994	0.5	1.8	2.3	1.0	0.9	1.0	2.3	5.2	0.1	0.1	0.0	0.0	0.0	0.2	0.7	1.3
1995	0.5	1.8	2.3	1.0	0.8	1.0	2.3	5.2	0.1	0.1	0.0	0.0	0.0	0.2	0.8	1.3
1996	0.5	1.8	2.3	1.1	0.9	1.0	2.3	5.3	0.1	0.1	0.0	0.0	0.0	0.2	0.8	1.4
1997	0.5	1.9	2.4	1.1	0.9	1.0	2.4	5.3	0.1	0.1	0.0	0.0	0.0	0.2	0.8	1.3
1998	0.5	1.8	2.4	1.0	0.9	1.0	2.4	5.3	0.1	0.1	0.0	0.0	0.0	0.2	0.8	1.5
1999	0.4	2.0	2.4	1.0	0.9	1.0	2.5	5.4	0.1	0.1	0.0	0.0	0.0	0.2	0.8	1.4
2000	0.4	1.8	2.3	1.0	1.2	1.0	2.2	5.4	0.1	0.1	0.0	0.0	0.0	0.2	0.8	1.4

Table 19. Niacin Contributed from Major Food Groups to the U.S. Food Supply, Selected Years

Year	Meat, poultry, & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
						Percent						
1909-19	32.8	5.4	3.1	41.3	1.2	0.3	0.0	0.2	1.8	0.2	3.2	29.5
1920-29	33.4	5.6	3.4	42.5	1.4	0.3	0.0	0.4	2.1	0.2	3.8	25.7
1930-39	32.9	5.9	3.5	42.4	1.5	0.3	0.1	0.6	2.4	0.2	4.7	23.3
1940-49	32.0	6.7	2.6	41.3	1.5	0.2	0.1	0.7	2.5	0.2	5.1	27.4
1950-59	31.0	7.0	3.4	41.3	1.5	0.1	0.1	0.8	2.5	0.2	4.5	30.2
1960-69	29.5	10.1	3.3	42.9	1.2	0.2	0.1	0.7	2.2	0.2	4.9	29.7
1970	28.4	12.2	3.3	43.9	1.0	0.3	0.1	0.7	2.2	0.1	4.9	29.2
1971	28.7	12.0	3.2	43.9	1.0	0.4	0.1	0.7	2.1	0.1	4.9	29.6
1972	27.6	12.5	3.6	43.7	1.0	0.4	0.1	0.6	2.1	0.1	5.1	29.5
1973	25.6	12.1	3.7	41.5	0.9	0.4	0.1	0.7	2.1	0.1	5.4	31.2
1974	23.4	10.3	3.0	36.6	0.7	0.3	0.1	0.5	1.7	0.1	4.5	40.3
1975	23.1	9.9	2.8	35.8	0.7	0.3	0.1	0.5	1.6	0.1	4.6	41.1
1976	23.5	10.3	2.9	36.6	0.7	0.4	0.1	0.5	1.6	0.1	4.3	40.8
1977	23.6	10.6	2.8	37.0	0.6	0.4	0.1	0.5	1.6	0.1	4.3	41.2
1978	22.8	11.1	3.2	37.0	0.6	0.4	0.1	0.5	1.6	0.1	4.5	41.0
1979	21.8	11.5	3.0	36.3	0.6	0.4	0.1	0.5	1.6	0.1	4.6	41.7
1980	22.3	11.7	2.9	36.9	0.6	0.4	0.1	0.5	1.6	0.1	3.8	42.0
1981	22.0	12.0	2.9	36.8	0.5	0.4	0.1	0.5	1.5	0.1	4.2	41.8
1982	21.0	12.1	2.8	35.9	0.5	0.4	0.1	0.5	1.5	0.1	4.5	42.5
1983	21.4	12.0	3.1	36.5	0.5	0.4	0.1	0.5	1.5	0.1	4.5	41.9
1984	21.1	12.2	3.1	36.4	0.5	0.4	0.1	0.5	1.5	0.1	4.4	41.8
1985	20.6	12.3	3.2	36.0	0.4	0.4	0.1	0.5	1.5	0.1	4.5	42.5
1986	19.9	12.5	3.3	35.7	0.4	0.4	0.1	0.5	1.5	0.1	4.4	42.9
1987	19.0	13.1	3.2	35.3	0.4	0.4	0.1	0.5	1.4	0.1	4.3	44.0
1988	18.9	13.1	3.1	35.1	0.4	0.4	0.1	0.5	1.4	0.1	4.5	44.5
1989	18.4	13.5	3.3	35.1	0.3	0.5	0.1	0.4	1.4	0.1	4.5	44.3
1990	17.5	13.8	3.1	34.4	0.3	0.5	0.1	0.5	1.4	0.1	4.0	45.8
1991	16.9	14.1	3.1	34.2	0.3	0.5	0.1	0.5	1.3	0.1	4.2	45.5
1992	16.9	14.5	2.9	34.3	0.3	0.5	0.1	0.5	1.3	0.1	4.0	45.9
1993	16.5	14.9	3.0	34.3	0.3	0.4	0.1	0.5	1.3	0.1	3.8	46.1
1994	16.7	15.0	3.0	34.8	0.3	0.5	0.1	0.5	1.3	0.1	3.8	45.7
1995	17.2	15.1	3.1	35.4	0.2	0.5	0.1	0.5	1.3	0.1	3.7	45.3
1996	16.5	15.2	2.9	34.7	0.2	0.5	0.1	0.5	1.3	0.1	3.7	45.5
1997	16.3	15.3	2.9	34.5	0.2	0.5	0.1	0.5	1.3	0.1	3.8	45.5
1998	16.8	15.3	2.9	34.9	0.2	0.4	0.1	0.5	1.3	0.1	3.9	45.0
1999	16.7	15.8	2.9	35.4	0.2	0.4	0.1	0.4	1.2	0.1	4.0	44.8
2000	16.9	15.7	3.1	35.7	0.2	0.4	0.1	0.4	1.2	0.1	3.8	44.8

Table 19. Niacin Contributed from Major Food Groups to the U.S. Food Supply, Selected Years—Continued

Year	Fruits			Vegetables					Fats and Oils						Sugars & sweeteners	Miscellaneous
	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Margarine	Shortening	Lard & beef tallow	Salad, cooking & other edible oils	Total		
								Percent								
1909-19	0.2	2.9	3.2	10.3	1.4	2.1	3.8	17.6	0.0	0.0	0.0	0.0	0.0	0.0	0.1	3.1
1920-29	0.4	3.3	3.6	9.4	1.7	2.0	4.6	17.7	0.1	0.0	0.0	0.0	0.0	0.1	0.1	4.1
1930-39	0.6	3.3	3.9	8.6	1.9	2.4	5.2	18.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	4.9
1940-49	0.8	2.6	3.4	6.6	1.5	2.4	4.5	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	5.0
1950-59	0.7	2.4	3.1	5.8	1.1	2.3	3.8	13.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	5.1
1960-69	0.6	2.1	2.7	6.0	0.9	2.0	3.3	12.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2
1970	0.7	2.0	2.7	6.2	0.8	2.3	3.1	12.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.6
1971	0.8	1.9	2.7	5.9	0.7	2.4	3.1	12.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5
1972	0.8	1.7	2.5	6.0	0.8	2.3	3.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
1973	0.8	1.8	2.6	6.0	0.8	2.2	3.2	12.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8
1974	0.7	1.5	2.2	5.1	0.7	1.9	2.6	10.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2
1975	0.7	1.6	2.3	5.3	0.7	1.9	2.6	10.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8
1976	0.7	1.5	2.2	5.2	0.7	2.0	2.6	10.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9
1977	0.7	1.6	2.3	5.1	0.6	1.9	2.6	10.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
1978	0.7	1.6	2.3	5.0	0.6	1.8	2.6	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
1979	0.6	1.6	2.3	4.9	0.6	1.9	2.6	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
1980	0.7	1.6	2.3	4.8	0.6	1.9	2.6	9.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
1981	0.6	1.7	2.3	4.8	0.7	1.8	2.6	9.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
1982	0.6	1.7	2.3	4.8	0.7	1.9	2.5	9.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
1983	0.7	1.6	2.3	4.8	0.6	1.8	2.5	9.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
1984	0.6	1.7	2.3	4.9	0.7	2.0	2.5	10.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
1985	0.6	1.7	2.2	4.8	0.7	1.8	2.5	9.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
1986	0.6	1.7	2.3	4.8	0.6	1.8	2.4	9.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4
1987	0.6	1.7	2.3	4.7	0.6	1.7	2.2	9.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
1988	0.6	1.7	2.3	4.5	0.6	1.7	2.2	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
1989	0.6	1.7	2.2	4.6	0.6	1.8	2.2	9.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
1990	0.5	1.5	2.0	4.4	0.6	1.9	2.2	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3
1991	0.5	1.6	2.0	4.7	0.6	1.9	2.2	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2
1992	0.6	1.6	2.1	4.5	0.6	1.8	2.2	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1
1993	0.6	1.6	2.1	4.7	0.7	1.8	2.2	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8
1994	0.6	1.5	2.1	4.7	0.8	1.8	2.2	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.6
1995	0.6	1.5	2.1	4.8	0.8	1.8	2.2	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
1996	0.6	1.5	2.2	5.0	0.8	1.8	2.2	9.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8
1997	0.6	1.6	2.2	4.9	0.9	1.8	2.2	9.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
1998	0.6	1.5	2.2	4.8	0.8	1.8	2.3	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
1999	0.6	1.6	2.1	4.6	0.8	1.7	2.3	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9
2000	0.5	1.5	2.1	4.6	0.9	1.7	2.1	9.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0

Table 20. Vitamin B_6 Contributed from Major Food Groups to the U.S. Food Supply, Selected Years

	Meat, poultry, & fish				Dairy products							
Year	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total	Eggs	Legumes, nuts & soy	Grain products
						Percent						
1909-19	22.6	2.4	1.5	26.5	5.0	1.3	0.2	0.5	7.1	2.4	2.9	17.1
1920-29	22.8	2.6	1.5	26.9	5.8	1.2	0.2	1.0	8.3	2.8	3.0	14.4
1930-39	22.5	2.8	1.4	26.7	6.3	1.2	0.3	1.5	9.3	2.8	3.6	12.7
1940-49	25.9	3.7	1.3	30.8	7.4	1.0	0.4	2.1	10.9	3.1	3.7	10.4
1950-59	27.9	4.8	1.6	34.3	7.7	0.7	0.6	2.6	11.6	3.6	3.6	8.3
1960-69	29.3	6.9	1.4	37.7	6.7	1.1	0.7	2.9	11.5	3.2	3.7	8.3
1970	29.1	7.7	1.4	38.2	5.5	1.7	0.8	4.1	12.1	2.9	3.4	9.1
1971	29.7	7.7	1.4	38.8	5.4	1.8	0.8	4.1	12.1	2.9	3.5	9.0
1972	29.1	8.1	1.6	38.8	5.3	2.0	0.9	4.0	12.1	2.8	3.7	8.5
1973	27.7	7.9	1.6	37.2	5.2	2.0	0.9	4.3	12.4	2.8	4.2	8.8
1974	27.6	7.4	1.4	36.3	4.5	1.9	0.9	3.8	11.1	2.5	3.6	14.2
1975	24.9	7.4	1.4	33.7	4.5	1.8	0.9	3.7	10.9	2.5	4.1	14.9
1976	25.6	7.7	1.6	34.9	4.2	2.2	0.9	3.8	11.0	2.4	3.9	14.6
1977	25.5	7.8	1.5	34.8	4.0	2.2	0.9	3.7	10.9	2.4	3.9	15.0
1978	24.9	8.2	1.7	34.8	3.9	2.3	1.0	3.8	11.0	2.4	3.8	15.1
1979	23.8	8.5	1.6	33.9	3.7	2.3	1.0	3.8	10.7	2.4	4.0	16.0
1980	24.2	8.7	1.5	34.4	3.5	2.3	1.0	3.8	10.6	2.4	3.6	16.1
1981	24.0	8.9	1.5	34.5	3.3	2.4	1.0	3.6	10.4	2.3	3.8	16.3
1982	23.0	9.0	1.5	33.5	3.2	2.4	1.1	3.7	10.3	2.3	4.1	16.6
1983	23.5	8.9	1.6	34.0	3.1	2.4	1.1	3.7	10.3	2.2	4.0	16.4
1984	23.2	9.0	1.7	33.9	2.9	2.4	1.1	3.8	10.2	2.2	3.7	16.5
1985	23.1	9.2	1.7	33.9	2.8	2.5	1.1	3.8	10.2	2.1	4.1	16.8
1986	23.0	9.3	1.7	34.0	2.6	2.6	1.1	3.8	10.0	2.1	3.9	17.1
1987	22.4	10.0	1.8	34.2	2.5	2.6	1.1	3.7	9.9	2.1	3.6	17.8
1988	22.5	10.1	1.7	34.2	2.3	2.6	1.1	3.6	9.6	2.0	3.9	18.5
1989	21.8	10.3	1.8	33.9	2.1	2.8	1.1	3.5	9.5	1.9	3.7	19.0
1990	21.1	10.7	1.7	33.5	1.9	2.9	1.1	3.7	9.6	1.8	3.7	19.9
1991	20.7	10.8	1.7	33.2	1.8	2.9	1.1	3.5	9.3	1.8	3.7	20.1
1992	20.5	11.0	1.6	33.1	1.7	2.8	1.1	3.5	9.1	1.8	3.7	20.6
1993	20.1	11.3	1.6	33.1	1.6	2.8	1.1	3.5	9.0	1.8	3.6	20.0
1994	20.5	11.3	1.7	33.5	1.6	2.8	1.1	3.6	9.1	1.8	3.7	19.1
1995	21.0	11.4	1.7	34.1	1.5	2.8	1.1	3.5	9.0	1.8	3.6	18.7
1996	20.4	11.5	1.6	33.5	1.5	2.8	1.1	3.5	9.0	1.8	3.5	17.9
1997	20.4	11.7	1.6	33.7	1.5	2.8	1.1	3.6	9.0	1.8	3.7	17.8
1998	20.9	11.7	1.6	34.2	1.5	2.8	1.1	3.6	8.9	1.8	3.8	17.3
1999	20.7	11.9	1.6	34.2	1.4	2.7	1.1	3.3	8.5	1.9	3.8	17.7
2000	21.1	12.0	1.7	34.7	1.4	2.7	1.2	3.4	8.7	1.9	3.8	17.8

Table 20. Vitamin B_6 Contributed from Major Food Groups to the U.S. Food Supply, Selected Years—Continued

Year	Fruits			Vegetables					Fats and Oils						Sugars & sweeteners	Miscellaneous
	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Margarine	Shortening	Lard & beef tallow	Salad, cooking & other edible oils	Total		
								Percent								
1909-19	0.5	7.9	8.3	23.2	3.5	2.2	5.2	34.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.1
1920-29	0.7	9.2	9.9	21.2	3.9	2.1	5.9	33.1	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.5
1930-39	1.1	9.3	10.4	19.7	4.3	2.5	6.4	32.9	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.6
1940-49	1.6	7.5	9.1	17.6	3.8	3.0	6.2	30.5	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.5
1950-59	1.6	8.5	10.1	16.1	2.8	3.0	5.5	27.5	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.6
1960-69	1.4	7.9	9.4	15.0	2.4	2.7	5.1	25.2	0.0	0.1	0.0	0.0	0.0	0.1	0.3	0.8
1970	1.6	7.2	8.7	14.0	2.2	3.1	4.8	24.2	0.0	0.1	0.0	0.0	0.0	0.1	0.3	1.1
1971	1.7	7.2	8.9	13.3	2.1	3.3	4.8	23.5	0.0	0.1	0.0	0.0	0.0	0.1	0.3	1.0
1972	1.7	7.0	8.8	13.6	2.2	3.2	4.7	23.8	0.0	0.1	0.0	0.0	0.0	0.1	0.3	1.2
1973	1.8	7.3	9.0	13.6	2.3	3.1	5.0	24.1	0.0	0.1	0.0	0.0	0.0	0.1	0.3	1.2
1974	1.7	6.8	8.5	12.4	2.2	3.0	4.7	22.3	0.0	0.1	0.0	0.0	0.0	0.1	0.2	1.2
1975	1.8	6.9	8.8	13.4	2.3	3.1	4.9	23.7	0.0	0.1	0.0	0.0	0.0	0.1	0.3	1.1
1976	1.8	7.0	8.8	12.9	2.2	3.1	4.7	23.0	0.0	0.1	0.0	0.0	0.0	0.1	0.2	1.1
1977	1.8	7.1	8.9	12.8	2.0	3.0	4.9	22.7	0.0	0.1	0.0	0.0	0.0	0.1	0.2	1.1
1978	1.7	7.5	9.2	12.5	2.0	2.9	4.9	22.3	0.0	0.1	0.0	0.0	0.0	0.1	0.2	1.1
1979	1.6	7.5	9.1	12.3	2.1	3.0	5.0	22.4	0.0	0.1	0.0	0.0	0.0	0.1	0.2	1.1
1980	1.8	7.5	9.3	12.2	2.0	3.1	4.9	22.2	0.0	0.1	0.0	0.0	0.0	0.1	0.2	1.1
1981	1.7	7.7	9.4	12.1	2.1	2.9	4.8	21.8	0.0	0.1	0.0	0.0	0.0	0.1	0.2	1.2
1982	1.6	8.2	9.8	12.0	2.2	2.9	4.8	22.0	0.0	0.1	0.0	0.0	0.0	0.1	0.2	1.2
1983	1.9	7.7	9.6	12.2	2.1	2.9	4.8	21.9	0.0	0.1	0.0	0.0	0.0	0.1	0.2	1.2
1984	1.5	8.1	9.7	12.1	2.2	3.1	4.7	22.1	0.0	0.1	0.0	0.0	0.0	0.1	0.2	1.3
1985	1.5	8.2	9.7	11.7	2.2	2.8	4.8	21.5	0.0	0.1	0.0	0.0	0.0	0.1	0.2	1.4
1986	1.7	8.5	10.1	11.8	2.0	2.8	4.5	21.1	0.0	0.1	0.0	0.0	0.0	0.1	0.2	1.3
1987	1.6	8.6	10.2	11.5	2.1	2.7	4.4	20.7	0.0	0.0	0.0	0.0	0.0	0.1	0.2	1.3
1988	1.6	8.2	9.8	11.2	2.0	2.6	4.4	20.3	0.0	0.0	0.0	0.0	0.0	0.1	0.2	1.3
1989	1.5	8.3	9.7	11.4	2.1	2.8	4.4	20.7	0.0	0.0	0.0	0.0	0.0	0.1	0.2	1.5
1990	1.3	8.0	9.3	10.8	2.1	3.0	4.5	20.4	0.0	0.0	0.0	0.0	0.0	0.1	0.2	1.6
1991	1.3	7.9	9.2	11.5	2.0	2.9	4.5	21.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	1.5
1992	1.5	8.2	9.7	10.9	2.1	2.7	4.4	20.2	0.0	0.0	0.0	0.0	0.0	0.1	0.2	1.7
1993	1.5	8.1	9.7	11.4	2.2	2.8	4.6	21.1	0.0	0.0	0.0	0.0	0.0	0.1	0.2	1.6
1994	1.6	8.2	9.8	11.4	2.5	2.9	4.6	21.4	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.5
1995	1.6	8.1	9.7	11.5	2.4	2.9	4.6	21.4	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.5
1996	1.7	8.3	10.1	12.0	2.6	2.8	4.8	22.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.7
1997	1.6	8.4	10.0	11.8	2.7	2.8	4.8	22.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.6
1998	1.7	8.4	10.1	11.5	2.5	2.9	5.0	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.7
1999	1.5	8.8	10.3	11.2	2.5	2.7	5.3	21.7	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.6
2000	1.5	8.3	9.8	11.3	2.9	2.7	4.7	21.5	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.6

Table 21. Folate (DFE) Contributed from Major Food Groups to the U.S. Food Supply, Selected Years

	Meat, poultry, & fish				Dairy products							
Year	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total	Eggs	Legumes, nuts & soy	Grain products
						Percent						
1909-19	5.2	1.8	0.4	7.5	4.2	1.1	0.3	0.6	6.2	6.0	21.4	23.4
1920-29	5.0	1.8	0.5	7.3	4.8	1.0	0.4	0.9	7.0	6.6	19.9	19.9
1930-39	4.6	1.8	0.4	6.8	4.8	0.9	0.4	1.3	7.4	6.1	22.1	17.2
1940-49	5.4	2.4	0.4	8.1	5.6	0.7	0.5	1.8	8.7	6.8	21.5	14.9
1950-59	5.6	3.2	0.4	9.1	5.9	0.6	0.8	2.3	9.5	8.1	20.1	14.3
1960-69	5.9	3.5	0.4	9.9	5.4	0.7	1.0	2.3	9.3	7.3	19.9	15.3
1970	6.2	3.2	0.4	9.8	4.7	1.1	1.1	2.2	9.1	7.0	19.5	15.5
1971	6.2	3.1	0.4	9.7	4.6	1.2	1.2	2.2	9.1	7.0	19.3	15.5
1972	6.1	3.2	0.4	9.7	4.4	1.3	1.2	2.1	9.0	6.9	19.2	15.3
1973	5.4	3.0	0.4	8.8	4.1	1.3	1.2	2.1	8.8	6.4	21.5	15.5
1974	5.0	2.5	0.3	7.8	3.3	1.1	1.1	1.6	7.1	5.4	16.0	30.1
1975	4.8	2.3	0.3	7.5	3.1	1.1	1.0	1.4	6.7	5.1	17.4	30.0
1976	5.0	2.4	0.3	7.7	3.0	1.4	1.1	1.4	6.9	4.9	16.8	30.3
1977	4.9	2.4	0.3	7.6	2.8	1.5	1.1	1.4	6.8	4.8	16.9	30.4
1978	4.8	2.5	0.4	7.6	2.8	1.6	1.2	1.4	7.0	5.1	16.1	31.3
1979	4.4	2.5	0.3	7.3	2.6	1.5	1.1	1.4	6.7	5.0	17.2	31.6
1980	4.5	2.5	0.3	7.3	2.5	1.6	1.2	1.4	6.7	5.0	15.3	32.3
1981	4.5	2.5	0.4	7.3	2.4	1.6	1.2	1.3	6.5	4.9	16.0	32.3
1982	4.2	2.3	0.3	6.8	2.3	1.6	1.3	1.2	6.4	4.8	17.3	32.1
1983	4.3	2.2	0.3	6.8	2.2	1.7	1.3	1.3	6.4	4.6	17.2	32.1
1984	4.3	2.1	0.4	6.8	2.2	1.7	1.3	1.4	6.6	4.7	15.5	33.3
1985	4.1	1.9	0.3	6.3	2.0	1.7	1.3	1.3	6.4	4.4	17.7	33.2
1986	4.0	2.0	0.3	6.3	1.9	1.8	1.3	1.4	6.4	4.3	16.9	33.7
1987	3.9	2.2	0.3	6.5	1.8	1.9	1.4	1.4	6.5	4.4	14.9	35.8
1988	3.7	2.1	0.3	6.1	1.7	1.8	1.3	1.3	6.1	4.1	16.9	35.7
1989	3.8	2.1	0.3	6.2	1.6	2.0	1.3	1.3	6.1	4.0	15.6	36.8
1990	3.6	2.1	0.3	6.0	1.4	2.1	1.3	1.4	6.1	3.9	15.8	38.5
1991	3.5	2.1	0.3	5.9	1.3	2.0	1.3	1.3	5.9	3.8	16.4	38.1
1992	3.4	2.0	0.3	5.7	1.2	2.0	1.2	1.3	5.7	3.7	16.2	38.2
1993	3.4	2.0	0.3	5.7	1.2	2.0	1.3	1.3	5.8	3.8	16.1	37.0
1994	3.5	2.0	0.3	5.8	1.2	2.0	1.3	1.5	5.9	3.8	16.5	35.9
1995	3.6	2.0	0.3	6.0	1.2	2.1	1.4	1.4	5.9	3.8	16.7	35.5
1996	3.5	2.1	0.3	5.9	1.1	2.0	1.3	1.4	5.9	3.8	16.1	35.1
1997	3.5	2.1	0.3	5.9	1.1	2.1	1.4	1.4	6.0	3.9	16.5	34.9
1998	1.6	0.9	0.1	2.7	0.5	0.9	0.6	0.6	2.6	1.8	7.7	70.2
1999	1.6	1.0	0.1	2.7	0.5	0.9	0.6	0.6	2.6	1.8	7.8	70.2
2000	1.6	1.0	0.1	2.7	0.5	0.9	0.6	0.6	2.6	1.8	7.6	70.9

Table 21. Folate (DFE) Contributed from Major Food Groups to the U.S. Food Supply, Selected Years—Continued

Year	Fruits			Vegetables					Fats and Oils						Sugars & sweeteners	Miscellaneous
	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Margarine	Shortening	Lard & beef tallow	Salad, cooking & other edible oils	Total		
								Percent								
1909-1919	1.4	2.7	4.0	8.7	2.3	2.5	15.8	29.4	0.2	0.0	0.0	0.0	0.0	0.2	0.0	1.9
1920-1929	2.0	3.0	4.9	7.7	4.0	2.3	18.4	32.4	0.2	0.0	0.0	0.0	0.0	0.2	0.0	1.8
1930-1939	2.8	2.9	5.7	6.7	4.8	2.5	18.8	32.8	0.2	0.0	0.0	0.0	0.0	0.2	0.0	1.7
1940-1949	4.1	2.5	6.6	5.9	4.6	2.9	18.2	31.6	0.1	0.0	0.0	0.0	0.0	0.2	0.0	1.6
1950-1959	5.1	2.8	8.0	5.5	3.8	2.8	17.0	29.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	1.7
1960-1969	5.5	2.8	8.4	5.5	3.3	2.5	16.5	27.8	0.1	0.0	0.0	0.0	0.0	0.1	0.0	2.0
1970	6.6	2.7	9.3	5.5	2.9	3.1	15.9	27.4	0.1	0.0	0.0	0.0	0.0	0.1	0.0	2.3
1971	7.2	2.7	9.9	5.2	2.8	3.2	15.9	27.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	2.3
1972	7.8	2.6	10.4	5.3	2.8	3.1	15.6	26.9	0.1	0.0	0.0	0.0	0.0	0.1	0.0	2.5
1973	7.5	2.5	10.0	5.0	2.9	2.8	15.7	26.5	0.1	0.0	0.0	0.0	0.0	0.1	0.0	2.4
1974	6.8	2.1	9.0	4.2	2.5	2.5	13.2	22.5	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.0
1975	7.2	2.2	9.4	4.3	2.4	2.5	12.9	22.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	1.9
1976	7.3	2.1	9.4	4.2	2.4	2.5	12.9	22.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.0
1977	7.1	2.3	9.4	4.1	2.3	2.5	13.2	22.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	1.9
1978	6.4	2.4	8.8	4.1	2.3	2.4	13.2	22.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	1.9
1979	6.4	2.3	8.7	4.0	2.4	2.4	12.8	21.6	0.0	0.0	0.0	0.0	0.0	0.1	0.0	1.8
1980	7.0	2.4	9.3	4.1	2.4	2.5	13.2	22.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	1.9
1981	6.5	2.6	9.1	4.0	2.6	2.3	13.0	21.9	0.0	0.0	0.0	0.0	0.0	0.1	0.0	1.9
1982	6.7	2.6	9.2	3.9	2.6	2.3	12.7	21.5	0.0	0.0	0.0	0.0	0.0	0.1	0.0	1.9
1983	7.7	2.5	10.2	4.0	2.4	2.3	12.0	20.7	0.0	0.0	0.0	0.0	0.0	0.1	0.0	1.9
1984	6.6	2.7	9.4	4.1	2.6	2.5	12.5	21.7	0.1	0.0	0.0	0.0	0.0	0.1	0.0	2.0
1985	6.6	2.7	9.3	3.9	2.6	2.2	12.1	20.7	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.0
1986	7.3	2.8	10.0	4.0	2.5	2.2	11.7	20.3	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.0
1987	6.8	3.0	9.8	3.9	2.4	2.1	11.4	19.9	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.0
1988	6.9	2.7	9.6	3.7	2.4	2.0	11.4	19.6	0.0	0.0	0.0	0.0	0.0	0.1	0.0	1.9
1989	5.9	2.9	8.8	3.9	2.4	2.2	11.7	20.3	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.0
1990	5.0	2.7	7.7	3.6	2.4	2.3	11.5	19.8	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.1
1991	5.8	2.7	8.5	3.9	2.3	2.2	10.9	19.3	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.1
1992	6.9	2.6	9.6	3.6	2.4	2.1	10.8	18.8	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.1
1993	7.1	2.8	9.9	3.9	2.4	2.2	10.9	19.4	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.2
1994	7.3	2.7	10.0	3.9	2.7	2.2	11.1	19.9	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.1
1995	7.5	2.6	10.2	3.9	2.7	2.2	10.8	19.7	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.1
1996	8.4	2.8	11.2	4.1	2.9	2.2	10.7	19.8	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.2
1997	7.5	2.8	10.3	4.0	3.1	2.2	11.1	20.4	0.0	0.0	0.0	0.0	0.0	0.1	0.0	2.1
1998	3.7	1.2	5.0	1.7	1.3	1.0	4.9	8.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
1999	3.4	1.3	4.7	1.7	1.4	1.0	5.0	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
2000	3.2	1.3	4.5	1.7	1.8	0.9	4.5	8.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0

Table 22. Vitamin B_{12} Contributed from Major Food Groups to the U.S. Food Supply, Selected Years

	Meat, poultry, & fish				Dairy products							
Year	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total	Eggs	Legumes, nuts & soy	Grain products
						Percent						
1909-19	64.9	2.6	9.5	77.1	12.1	3.5	0.7	1.1	17.3	5.1	0.0	0.2
1920-29	62.2	2.7	9.3	74.2	13.8	3.1	0.8	1.9	19.6	5.6	0.0	0.2
1930-39	60.7	2.9	8.3	71.9	15.0	3.0	1.0	3.0	21.9	5.6	0.0	0.1
1940-49	62.0	3.4	6.4	71.9	15.3	2.1	1.1	3.7	22.2	5.5	0.0	0.1
1950-59	61.5	4.3	5.6	71.4	14.7	1.4	1.5	4.8	22.3	5.9	0.0	0.1
1960-69	63.5	4.6	5.0	73.1	12.4	2.0	1.8	4.9	21.2	5.0	0.0	0.5
1970	63.6	4.1	5.6	73.3	10.3	3.2	2.0	4.9	20.3	4.5	0.0	1.6
1971	64.2	4.1	4.9	73.2	10.1	3.4	2.1	4.9	20.4	4.6	0.0	1.6
1972	63.6	4.2	5.3	73.2	9.9	3.7	2.2	4.6	20.4	4.5	0.0	1.6
1973	61.7	4.2	6.2	72.1	9.9	3.9	2.4	5.2	21.4	4.5	0.0	1.7
1974	65.2	4.0	6.0	75.3	9.2	3.9	2.4	4.6	20.1	4.4	0.0	0.1
1975	64.6	4.1	6.2	74.9	9.5	3.8	2.5	4.5	20.2	4.5	0.0	0.1
1976	65.3	4.2	5.6	75.1	8.8	4.5	2.6	4.5	20.4	4.2	0.0	0.1
1977	64.8	4.2	6.2	75.1	8.5	4.8	2.7	4.4	20.3	4.2	0.0	0.1
1978	64.0	4.4	5.8	74.3	8.5	4.9	2.9	4.6	20.9	4.5	0.0	0.1
1979	62.8	4.7	6.0	73.5	8.4	5.2	3.0	4.9	21.5	4.7	0.0	0.1
1980	62.9	4.7	6.3	73.8	8.0	5.4	3.1	4.8	21.2	4.6	0.0	0.1
1981	62.4	4.7	7.8	74.8	7.6	5.4	3.1	4.3	20.4	4.5	0.0	0.1
1982	61.9	4.7	7.3	73.8	7.5	5.7	3.5	4.5	21.2	4.7	0.0	0.1
1983	62.5	4.4	7.4	74.3	7.1	5.7	3.4	4.6	20.9	4.5	0.0	0.1
1984	61.9	4.1	8.3	74.4	6.8	5.6	3.5	4.8	20.8	4.4	0.0	0.1
1985	61.3	4.0	9.0	74.3	6.6	5.9	3.7	4.8	21.1	4.3	0.0	0.1
1986	63.1	4.3	6.3	73.7	6.4	6.4	3.8	5.2	21.6	4.4	0.0	0.1
1987	61.1	4.7	8.2	73.9	6.1	6.4	3.9	5.1	21.4	4.3	0.0	0.1
1988	61.0	4.7	8.2	73.9	5.9	6.7	3.9	5.0	21.5	4.3	0.0	0.1
1989	61.1	4.8	8.4	74.2	5.4	7.3	3.9	4.7	21.3	4.1	0.0	0.1
1990	60.4	5.0	8.1	73.4	5.1	7.7	4.0	5.4	22.1	4.1	0.0	0.1
1991	59.3	5.1	9.0	73.5	4.9	7.9	4.1	5.1	22.0	4.2	0.0	0.1
1992	59.6	5.1	8.8	73.5	4.7	7.9	4.1	5.3	22.0	4.2	0.0	0.1
1993	59.4	5.1	8.8	73.3	4.6	7.9	4.2	5.3	22.1	4.2	0.0	0.1
1994	59.9	5.0	8.4	73.2	4.4	7.8	4.2	5.9	22.2	4.2	0.0	0.1
1995	60.6	4.9	8.8	74.3	4.1	7.7	4.2	5.3	21.3	4.1	0.0	0.1
1996	60.1	5.0	8.8	73.9	4.1	7.8	4.2	5.6	21.7	4.1	0.0	0.1
1997	60.4	5.1	8.1	73.5	4.1	7.9	4.3	5.7	21.9	4.2	0.0	0.1
1998	60.0	5.0	8.9	74.0	3.9	7.6	4.3	5.6	21.5	4.2	0.0	0.1
1999	60.2	5.3	9.0	74.4	3.9	7.5	4.4	5.1	20.9	4.4	0.0	0.1
2000	60.4	5.1	9.7	75.2	3.8	7.2	4.4	5.0	20.3	4.3	0.0	0.1

Table 22. Vitamin B_{12} Contributed from Major Food Groups to the U.S. Food Supply, Selected Years—Continued

	Fruits			Vegetables					Fats and Oils							
Year	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Marg-arine	Short-ening	Lard & beef tallow	Salad, cooking & other edible oils	Total	Sugars & sweeteners	Miscel-laneous
								Percent								
1909-19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.4	0.0	0.0
1920-29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.4	0.0	0.0
1930-39	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.4	0.0	0.0
1940-49	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.3	0.0	0.0
1950-59	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.3	0.0	0.0
1960-69	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1970	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1971	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1972	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1973	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1974	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1975	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.2	0.0	0.0
1976	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.2	0.0	0.0
1977	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1978	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.2	0.0	0.0
1979	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.2	0.0	0.0
1980	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.2	0.0	0.0
1981	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.2	0.0	0.0
1982	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.2	0.0	0.0
1983	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1984	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1985	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1986	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.3	0.0	0.0
1987	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1988	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1989	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1990	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.2	0.0	0.0
1991	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.2	0.0	0.0
1992	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.2	0.0	0.0
1993	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.3	0.0	0.0
1994	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1995	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1996	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1997	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1998	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
1999	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0
2000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0

Table 23. Calcium Contributed from Major Food Groups to the U.S. Food Supply, Selected Years

	Meat, poultry, & fish				Dairy products							
Year	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total	Eggs	Legumes, nuts & soy	Grain products
						Percent						
1909-19	1.4	0.2	1.8	3.4	42.0	11.8	4.8	6.8	65.3	2.6	5.3	7.9
1920929	1.2	0.2	1.9	3.3	42.8	9.4	4.9	10.1	67.2	2.6	4.5	6.6
1930-39	1.1	0.2	1.8	3.1	41.7	8.1	5.2	13.8	68.8	2.3	4.7	5.5
1940-49	1.1	0.2	1.4	2.7	44.1	5.9	5.6	16.9	72.5	2.3	4.2	4.4
1950-59	1.1	0.3	1.3	2.8	43.9	4.3	7.4	19.5	75.2	2.6	3.8	3.6
1960-69	1.2	0.5	1.1	2.8	39.9	7.0	9.6	19.3	75.8	2.4	3.7	3.5
1970	1.3	0.5	1.0	2.8	34.6	11.3	10.7	19.0	75.6	2.3	3.6	3.4
1971	1.3	0.5	1.0	2.8	33.7	11.9	11.3	18.7	75.6	2.3	3.6	3.4
1972	1.3	0.6	1.1	2.9	32.8	12.7	12.3	17.7	75.6	2.2	3.6	3.2
1973	1.1	0.5	1.1	2.8	31.3	12.7	12.7	18.6	75.3	2.1	4.2	3.2
1974	1.3	0.6	1.0	2.8	30.5	13.4	14.0	17.1	75.0	2.2	3.7	3.6
1975	1.3	0.6	0.9	2.8	30.4	12.6	14.2	16.4	73.7	2.2	4.4	3.8
1976	1.3	0.6	1.0	2.9	28.2	15.0	14.9	16.2	74.3	2.0	4.2	3.7
1977	1.3	0.6	1.0	2.9	27.2	15.8	15.4	16.0	74.4	2.0	4.3	3.7
1978	1.3	0.6	1.0	2.9	26.5	15.8	16.4	16.1	74.8	2.1	3.9	3.7
1979	1.2	0.6	1.0	2.8	25.2	16.0	16.6	16.4	74.2	2.1	4.4	3.8
1980	1.2	0.7	0.9	2.8	24.2	16.8	17.1	16.1	74.2	2.1	4.0	3.9
1981	1.3	0.7	1.0	3.0	23.5	17.3	17.9	15.1	73.7	2.1	4.2	4.0
1982	1.2	0.7	0.9	2.8	22.1	17.3	19.3	14.9	73.6	2.0	4.5	4.0
1983	1.2	0.7	0.9	2.8	21.3	17.6	19.6	15.3	73.8	2.0	4.5	3.9
1984	1.2	0.7	1.0	2.9	20.5	17.4	20.3	16.0	74.2	2.0	4.0	3.9
1985	1.2	0.7	1.0	2.9	19.4	17.9	20.8	15.7	73.8	1.9	4.6	3.9
1986	1.1	0.7	1.0	2.9	18.1	18.7	20.9	16.4	74.1	1.8	4.3	4.0
1987	1.1	0.8	1.0	2.9	17.4	19.1	21.9	16.2	74.6	1.8	3.8	4.3
1988	1.1	0.8	0.9	2.9	16.6	19.6	21.6	15.9	73.7	1.8	4.5	4.5
1989	1.1	0.8	1.0	2.9	15.4	21.3	21.7	15.3	73.7	1.8	4.1	4.6
1990	1.0	0.9	1.0	2.9	13.9	21.5	21.8	16.5	73.8	1.7	4.2	4.7
1991	1.3	0.9	1.0	3.2	13.5	21.9	22.1	15.8	73.2	1.7	4.4	4.7
1992	1.3	0.9	0.9	3.1	12.7	21.6	22.4	16.0	72.8	1.7	4.5	4.8
1993	1.3	0.9	0.9	3.1	12.2	21.7	22.7	16.0	72.6	1.7	4.4	4.8
1994	1.3	0.9	0.9	3.2	11.7	21.3	22.4	17.5	72.8	1.6	4.4	4.7
1995	1.3	0.9	0.9	3.2	11.4	21.7	23.3	16.2	72.6	1.7	4.4	4.7
1996	1.3	0.9	0.9	3.2	11.2	21.6	23.3	16.4	72.5	1.7	4.3	4.7
1997	1.3	0.9	0.9	3.2	10.9	21.4	23.7	16.5	72.5	1.7	4.3	4.7
1998	1.3	1.0	0.8	3.1	10.7	21.1	23.8	16.5	72.2	1.7	4.4	4.6
1999	1.3	1.0	0.9	3.2	10.8	20.9	24.8	15.3	71.7	1.8	4.6	4.7
2000	1.3	1.0	0.9	3.2	10.7	20.7	25.5	15.2	72.2	1.8	4.5	4.8

Table 23. Calcium Contributed from Major Food Groups to the U.S. Food Supply, Selected Years—Continued

Year	Fruits			Vegetables					Fats and Oils						Sugars & sweeteners	Miscellaneous
	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Margarine	Shortening	Lard & beef tallow	Salad, cooking & other edible oils	Total		
								Percent								
1909-19	0.8	1.8	2.6	2.7	1.3	0.7	5.1	9.8	0.7	0.1	0.0	0.0	0.0	0.7	1.4	1.0
1920-29	1.0	1.8	2.9	2.2	1.7	0.6	5.3	9.7	0.6	0.1	0.0	0.0	0.0	0.7	1.1	1.5
1930-39	1.3	1.6	3.0	1.8	1.8	0.6	5.0	9.3	0.6	0.1	0.0	0.0	0.0	0.7	1.0	1.6
1940-49	1.7	1.3	3.0	1.5	1.6	0.6	4.2	7.9	0.4	0.1	0.0	0.0	0.0	0.5	0.8	1.6
1950-59	1.3	1.2	2.5	1.3	1.3	0.6	3.7	6.8	0.3	0.3	0.0	0.0	0.0	0.6	0.5	1.5
1960-69	1.1	1.1	2.2	1.3	1.1	0.6	3.5	6.4	0.2	0.4	0.0	0.0	0.0	0.6	0.6	1.9
1970	1.2	1.1	2.3	1.2	0.9	0.9	3.5	6.5	0.2	0.4	0.0	0.0	0.0	0.6	0.7	2.2
1971	1.2	1.1	2.4	1.2	0.9	0.9	3.4	6.5	0.2	0.4	0.0	0.0	0.0	0.6	0.7	2.2
1972	1.2	1.0	2.3	1.2	0.9	0.9	3.4	6.4	0.2	0.4	0.0	0.0	0.0	0.6	0.7	2.4
1973	1.2	1.0	2.3	1.2	1.0	0.9	3.5	6.5	0.2	0.4	0.0	0.0	0.0	0.6	0.8	2.3
1974	1.3	1.0	2.4	1.2	1.0	0.9	3.6	6.6	0.1	0.4	0.0	0.0	0.0	0.6	0.8	2.3
1975	1.5	1.2	2.6	1.3	1.0	0.9	3.7	6.9	0.2	0.4	0.0	0.0	0.0	0.6	0.8	2.2
1976	1.4	1.1	2.5	1.2	1.0	0.9	3.6	6.7	0.1	0.5	0.0	0.0	0.0	0.6	0.8	2.4
1977	1.3	1.1	2.5	1.2	0.9	0.9	3.7	6.7	0.1	0.4	0.0	0.0	0.0	0.6	0.8	2.1
1978	1.3	1.2	2.5	1.2	0.9	0.9	3.7	6.6	0.1	0.4	0.0	0.0	0.0	0.6	0.8	2.2
1979	1.2	1.2	2.4	1.2	1.0	0.9	3.7	6.8	0.1	0.4	0.0	0.0	0.0	0.6	0.8	2.2
1980	1.4	1.2	2.6	1.2	1.0	1.0	3.8	7.0	0.1	0.4	0.0	0.0	0.0	0.6	0.7	2.2
1981	1.3	1.2	2.5	1.2	1.0	1.0	3.8	7.0	0.1	0.4	0.0	0.0	0.0	0.6	0.7	2.3
1982	1.2	1.3	2.5	1.2	1.0	1.0	3.7	6.9	0.1	0.4	0.0	0.0	0.0	0.6	0.7	2.3
1983	1.4	1.3	2.7	1.2	0.9	0.9	3.6	6.6	0.2	0.4	0.0	0.0	0.0	0.6	0.7	2.4
1984	1.2	1.4	2.5	1.2	1.0	1.0	3.6	6.7	0.2	0.4	0.0	0.0	0.0	0.6	0.7	2.6
1985	1.1	1.3	2.5	1.1	1.0	0.8	3.6	6.6	0.2	0.4	0.0	0.0	0.0	0.6	0.7	2.5
1986	1.3	1.3	2.6	1.1	0.9	0.8	3.5	6.4	0.1	0.4	0.0	0.0	0.0	0.6	0.7	2.6
1987	1.2	1.4	2.6	1.1	0.9	0.8	3.3	6.1	0.1	0.4	0.0	0.0	0.0	0.5	0.7	2.6
1988	1.3	1.4	2.7	1.1	0.9	0.7	3.5	6.2	0.1	0.4	0.0	0.0	0.0	0.5	0.7	2.5
1989	1.2	1.5	2.6	1.2	0.9	0.8	3.5	6.4	0.1	0.4	0.0	0.0	0.0	0.5	0.7	2.7
1990	1.0	1.4	2.4	1.1	0.9	0.9	3.5	6.3	0.1	0.4	0.0	0.0	0.0	0.5	0.7	2.8
1991	1.0	1.3	2.3	1.2	0.9	0.9	3.5	6.4	0.1	0.4	0.0	0.0	0.0	0.5	0.7	2.8
1992	1.2	1.4	2.6	1.1	0.9	0.8	3.5	6.4	0.1	0.4	0.0	0.0	0.0	0.5	0.8	2.8
1993	1.3	1.4	2.7	1.2	1.0	0.9	3.6	6.7	0.1	0.4	0.0	0.0	0.0	0.6	0.8	2.7
1994	1.2	1.3	2.6	1.1	1.1	0.9	3.6	6.7	0.1	0.4	0.0	0.0	0.0	0.5	0.8	2.7
1995	1.3	1.3	2.6	1.2	1.1	0.9	3.6	6.7	0.1	0.3	0.0	0.0	0.0	0.5	0.8	2.8
1996	1.3	1.3	2.7	1.2	1.1	0.9	3.6	6.8	0.1	0.3	0.0	0.0	0.0	0.5	0.7	3.0
1997	1.3	1.3	2.6	1.2	1.2	0.9	3.7	6.9	0.1	0.3	0.0	0.0	0.0	0.4	0.8	3.0
1998	1.4	1.3	2.7	1.1	1.1	0.9	3.7	6.8	0.1	0.3	0.0	0.0	0.0	0.4	0.8	3.2
1999	1.2	1.4	2.5	1.1	1.2	0.9	3.9	7.1	0.1	0.3	0.0	0.0	0.0	0.4	0.7	3.2
2000	1.2	1.3	2.5	1.1	1.5	0.8	3.4	6.9	0.1	0.3	0.0	0.0	0.0	0.4	0.7	3.0

Table 24. Phosphorus Contributed from Major Food Groups to the U.S. Food Supply, Selected Years

Year	Meat, poultry, & fish				Dairy products							
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total	Eggs	Legumes, nuts & soy	Grain products
						Percent						
1909-19	17.2	1.7	2.1	21.0	16.9	5.0	1.7	2.9	26.5	4.9	4.4	28.1
1920-29	16.6	1.7	2.3	20.6	18.8	4.3	2.0	4.5	29.5	5.3	4.4	24.5
1930-39	15.8	1.8	2.2	19.8	19.5	4.0	2.3	6.5	32.2	5.1	5.0	21.9
1940-49	17.0	2.2	1.9	21.1	21.8	3.0	2.6	8.3	35.7	5.4	5.1	18.1
1950-59	17.6	2.7	2.2	22.5	21.9	2.2	3.6	9.7	37.5	6.1	5.0	15.5
1960-69	18.5	3.8	2.1	24.4	19.4	3.5	4.4	9.5	36.7	5.4	5.1	15.2
1970	19.0	4.4	2.2	25.6	16.8	5.6	5.0	9.4	36.7	5.1	5.1	14.2
1971	19.4	4.4	2.1	25.9	16.3	5.8	5.2	9.3	36.6	5.1	5.1	14.1
1972	18.9	4.6	2.3	25.9	15.9	6.2	5.7	8.9	36.7	5.0	5.5	13.3
1973	17.7	4.5	2.4	24.5	15.4	6.3	5.9	9.5	37.1	4.8	6.0	13.8
1974	19.0	4.5	2.2	25.7	14.6	6.5	6.3	8.7	36.0	4.8	5.7	14.4
1975	17.4	4.5	2.2	24.1	14.6	6.1	6.4	8.4	35.5	4.8	6.5	15.3
1976	17.7	4.7	2.3	24.7	13.6	7.3	6.6	8.4	35.9	4.5	6.2	15.0
1977	17.8	4.7	2.3	24.8	13.1	7.7	6.9	8.3	35.9	4.5	6.3	15.1
1978	17.3	5.0	2.4	24.7	12.8	7.7	7.3	8.4	36.1	4.6	6.2	15.1
1979	16.9	5.2	2.3	24.4	12.1	7.8	7.3	8.6	35.8	4.7	6.5	15.4
1980	17.3	5.3	2.3	24.9	11.5	8.1	7.5	8.4	35.5	4.6	5.9	15.6
1981	17.3	5.5	2.3	25.1	11.1	8.2	7.8	7.9	34.9	4.5	6.2	15.7
1982	16.4	5.5	2.2	24.2	10.5	8.3	8.5	7.9	35.2	4.5	6.6	15.9
1983	16.8	5.5	2.3	24.5	10.1	8.4	8.6	8.1	35.2	4.4	6.6	15.6
1984	16.6	5.6	2.4	24.6	9.7	8.3	8.9	8.5	35.4	4.3	6.2	15.7
1985	16.3	5.6	2.4	24.3	9.2	8.6	9.1	8.4	35.2	4.1	6.6	16.1
1986	16.2	5.7	2.4	24.4	8.6	8.9	9.1	8.7	35.2	4.0	6.3	16.4
1987	15.7	6.1	2.5	24.3	8.2	9.0	9.4	8.5	35.1	4.0	5.9	17.4
1988	15.9	6.2	2.3	24.4	7.7	9.1	9.1	8.2	34.1	3.9	6.4	18.2
1989	15.6	6.4	2.5	24.5	7.1	9.9	9.2	7.8	34.0	3.7	6.1	18.2
1990	15.0	6.6	2.4	24.0	6.5	10.1	9.3	8.5	34.3	3.6	6.1	18.6
1991	14.8	6.8	2.4	24.0	6.2	10.2	9.4	8.1	33.9	3.6	6.2	18.5
1992	14.8	7.0	2.3	24.1	5.9	10.1	9.5	8.2	33.8	3.6	6.2	18.6
1993	14.6	7.2	2.3	24.1	5.6	10.1	9.6	8.2	33.5	3.6	6.1	18.9
1994	14.7	7.1	2.3	24.2	5.5	10.0	9.5	8.9	33.9	3.6	6.1	18.7
1995	15.1	7.2	2.3	24.7	5.3	10.2	9.8	8.3	33.6	3.6	6.0	18.7
1996	14.5	7.2	2.3	24.1	5.2	10.1	9.9	8.4	33.6	3.5	5.9	18.8
1997	14.4	7.3	2.3	23.9	5.1	10.1	10.0	8.4	33.6	3.6	6.0	18.9
1998	14.8	7.3	2.2	24.2	4.9	9.9	10.0	8.4	33.2	3.6	6.3	18.5
1999	14.9	7.5	2.3	24.7	4.9	9.7	10.3	7.7	32.6	3.8	6.4	18.5
2000	15.0	7.5	2.4	24.8	4.9	9.5	10.6	7.7	32.7	3.8	6.2	18.6

Table 24. Phosphorus Contributed from Major Food Groups to the U.S. Food Supply, Selected Years—Continued

Year	Fruits			Vegetables					Fats and Oils						Sugars & sweeteners	Miscellaneous
	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Margarine	Shortening	Lard & beef tallow	Salad, cooking & other edible oils	Total		
								Percent								
1909-19	0.2	1.4	1.5	6.7	0.8	0.9	3.2	11.6	0.3	0.0	0.0	0.0	0.0	0.4	0.4	1.2
1920-29	0.2	1.5	1.7	5.8	0.9	0.8	3.6	11.2	0.3	0.0	0.0	0.0	0.0	0.4	0.4	2.0
1930-39	0.3	1.4	1.7	5.2	1.0	0.9	3.9	11.0	0.4	0.0	0.0	0.0	0.0	0.4	0.4	2.4
1940-49	0.5	1.2	1.7	4.4	1.0	1.0	3.7	10.0	0.2	0.1	0.0	0.0	0.0	0.3	0.3	2.5
1950-59	0.5	1.1	1.6	3.9	0.7	1.0	3.3	8.9	0.2	0.1	0.0	0.0	0.0	0.3	0.3	2.4
1960-69	0.5	1.0	1.5	3.7	0.7	0.8	3.0	8.2	0.1	0.2	0.0	0.0	0.0	0.3	0.3	2.8
1970	0.6	1.0	1.6	3.6	0.6	1.0	3.0	8.2	0.1	0.2	0.0	0.0	0.0	0.3	0.4	2.9
1971	0.6	1.0	1.6	3.4	0.6	1.0	3.0	8.0	0.1	0.2	0.0	0.0	0.0	0.3	0.4	3.0
1972	0.7	0.9	1.6	3.4	0.6	1.0	3.0	8.0	0.1	0.2	0.0	0.0	0.0	0.3	0.4	3.3
1973	0.7	1.0	1.7	3.4	0.6	1.0	3.1	8.1	0.1	0.2	0.0	0.0	0.0	0.3	0.4	3.2
1974	0.7	1.0	1.7	3.3	0.6	1.0	3.1	8.0	0.1	0.2	0.0	0.0	0.0	0.3	0.4	3.0
1975	0.8	1.0	1.8	3.6	0.6	1.1	3.2	8.5	0.1	0.2	0.0	0.0	0.0	0.3	0.4	2.8
1976	0.8	1.0	1.8	3.4	0.6	1.1	3.1	8.2	0.1	0.2	0.0	0.0	0.0	0.3	0.4	3.1
1977	0.8	1.0	1.8	3.4	0.6	1.0	3.2	8.2	0.1	0.2	0.0	0.0	0.0	0.3	0.4	2.7
1978	0.7	1.0	1.8	3.3	0.6	1.0	3.2	8.0	0.1	0.2	0.0	0.0	0.0	0.3	0.4	2.8
1979	0.7	1.1	1.8	3.3	0.6	1.0	3.2	8.1	0.1	0.2	0.0	0.0	0.0	0.3	0.4	2.7
1980	0.8	1.1	1.9	3.3	0.6	1.0	3.2	8.2	0.1	0.2	0.0	0.0	0.0	0.3	0.4	2.8
1981	0.7	1.1	1.9	3.3	0.6	1.0	3.2	8.1	0.1	0.2	0.0	0.0	0.0	0.3	0.3	3.0
1982	0.7	1.1	1.9	3.3	0.7	1.0	3.1	8.1	0.1	0.2	0.0	0.0	0.0	0.3	0.3	3.0
1983	0.8	1.1	2.0	3.3	0.6	1.0	3.0	8.0	0.1	0.2	0.0	0.0	0.0	0.3	0.3	3.1
1984	0.7	1.2	1.9	3.3	0.7	1.1	3.1	8.1	0.1	0.2	0.0	0.0	0.0	0.3	0.3	3.3
1985	0.7	1.2	1.9	3.1	0.7	1.0	3.0	7.8	0.1	0.2	0.0	0.0	0.0	0.3	0.3	3.4
1986	0.8	1.2	1.9	3.2	0.6	1.0	2.9	7.7	0.1	0.2	0.0	0.0	0.0	0.3	0.3	3.4
1987	0.7	1.2	2.0	3.1	0.6	1.0	2.7	7.4	0.1	0.2	0.0	0.0	0.0	0.3	0.3	3.4
1988	0.7	1.2	1.9	3.0	0.6	0.9	2.8	7.4	0.1	0.2	0.0	0.0	0.0	0.3	0.3	3.2
1989	0.7	1.2	1.9	3.1	0.7	1.0	2.8	7.6	0.1	0.2	0.0	0.0	0.0	0.3	0.3	3.4
1990	0.6	1.2	1.7	2.9	0.7	1.1	2.8	7.5	0.1	0.2	0.0	0.0	0.0	0.3	0.3	3.7
1991	0.6	1.1	1.7	3.2	0.6	1.1	2.8	7.6	0.1	0.2	0.0	0.0	0.0	0.3	0.3	3.8
1992	0.8	1.1	1.9	3.0	0.7	1.0	2.8	7.5	0.1	0.2	0.0	0.0	0.0	0.3	0.3	3.7
1993	0.8	1.2	1.9	3.2	0.7	1.0	2.8	7.7	0.1	0.2	0.0	0.0	0.0	0.3	0.3	3.5
1994	0.8	1.1	1.9	3.1	0.8	1.0	2.9	7.8	0.1	0.2	0.0	0.0	0.0	0.2	0.3	3.3
1995	0.8	1.1	1.9	3.1	0.8	1.0	2.9	7.8	0.1	0.1	0.0	0.0	0.0	0.2	0.3	3.1
1996	0.9	1.1	2.0	3.2	0.8	1.0	2.9	8.0	0.1	0.1	0.0	0.0	0.0	0.2	0.3	3.6
1997	0.8	1.2	1.9	3.2	0.9	1.0	2.9	8.0	0.1	0.1	0.0	0.0	0.0	0.2	0.3	3.5
1998	0.9	1.1	2.0	3.1	0.8	1.0	2.9	7.8	0.1	0.1	0.0	0.0	0.0	0.2	0.3	3.7
1999	0.8	1.2	2.0	3.1	0.8	1.0	3.0	7.9	0.1	0.1	0.0	0.0	0.0	0.2	0.3	3.6
2000	0.7	1.1	1.9	3.0	1.0	1.0	2.7	7.7	0.1	0.1	0.0	0.0	0.0	0.2	0.3	3.8

Table 25. Magnesium Contributed from Major Food Groups to the U.S. Food Supply, Selected Years

	Meat, poultry, & fish				Dairy products							
Year	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total	Eggs	Legumes, nuts & soy	Grain products
						Percent						
1909-19	6.6	0.8	1.2	8.6	9.1	2.1	0.4	1.2	12.8	1.1	9.7	35.8
1920-29	6.5	0.8	1.3	8.6	10.4	1.9	0.4	2.1	14.7	1.2	9.6	30.6
1930-39	6.2	0.9	1.1	8.2	10.8	1.7	0.5	3.0	15.9	1.1	11.0	26.8
1940-49	7.0	1.1	1.0	9.2	12.6	1.4	0.6	4.1	18.7	1.3	11.5	22.1
1950-59	7.8	1.5	1.4	10.7	13.6	1.1	0.9	5.1	20.7	1.5	11.7	19.1
1960-69	8.4	2.2	1.4	11.9	12.2	2.1	1.1	5.1	20.5	1.4	12.1	18.2
1970	8.8	2.6	1.5	12.8	10.7	3.5	1.2	5.4	20.8	1.3	12.0	16.6
1971	8.9	2.6	1.4	13.0	10.5	3.7	1.3	5.4	20.9	1.3	12.1	16.5
1972	8.8	2.7	1.5	13.0	10.2	4.0	1.4	5.3	20.8	1.3	12.7	15.0
1973	8.1	2.6	1.6	12.3	9.7	4.0	1.4	5.5	20.6	1.2	13.9	15.4
1974	8.7	2.6	1.5	12.9	9.2	4.1	1.5	5.2	20.0	1.2	12.8	17.0
1975	7.9	2.6	1.5	12.0	9.0	3.8	1.5	5.0	19.2	1.2	14.4	17.4
1976	8.1	2.7	1.6	12.4	8.4	4.5	1.6	5.0	19.6	1.1	13.8	17.1
1977	8.2	2.8	1.6	12.6	8.2	4.8	1.7	5.1	19.8	1.1	14.1	17.8
1978	8.0	2.9	1.7	12.6	8.0	4.8	1.8	5.1	19.8	1.2	13.7	17.8
1979	7.6	3.0	1.6	12.3	7.5	4.9	1.8	5.2	19.4	1.2	14.4	18.0
1980	7.9	3.2	1.5	12.6	7.3	5.1	1.8	5.2	19.4	1.2	13.1	18.4
1981	7.8	3.2	1.6	12.6	6.9	5.2	1.9	5.0	18.9	1.1	13.7	18.3
1982	7.4	3.2	1.5	12.2	6.5	5.2	2.0	5.0	18.7	1.1	14.7	18.4
1983	7.6	3.2	1.6	12.3	6.3	5.3	2.1	5.1	18.7	1.1	14.6	18.2
1984	7.5	3.2	1.6	12.4	6.0	5.2	2.1	5.3	18.7	1.1	13.6	18.6
1985	7.3	3.2	1.7	12.2	5.6	5.3	2.2	5.2	18.3	1.0	14.7	19.0
1986	7.3	3.3	1.7	12.3	5.3	5.5	2.2	5.4	18.3	1.0	13.9	19.6
1987	7.1	3.6	1.7	12.4	5.0	5.6	2.2	5.3	18.2	1.0	12.8	21.4
1988	7.1	3.6	1.6	12.3	4.7	5.6	2.2	5.1	17.5	0.9	14.0	22.2
1989	7.0	3.7	1.7	12.3	4.3	6.0	2.1	4.8	17.3	0.9	13.3	22.1
1990	6.7	3.8	1.6	12.1	3.9	6.1	2.2	5.2	17.4	0.9	13.2	22.6
1991	6.5	3.9	1.6	11.9	3.7	6.1	2.2	4.9	17.0	0.9	13.5	22.3
1992	6.5	4.0	1.6	12.0	3.5	6.1	2.2	5.0	16.8	0.9	13.5	22.4
1993	6.4	4.1	1.6	12.1	3.4	6.0	2.2	5.1	16.7	0.9	13.3	22.8
1994	6.6	4.1	1.6	12.3	3.3	6.1	2.2	5.5	17.1	0.9	13.4	22.7
1995	6.8	4.2	1.6	12.6	3.3	6.1	2.3	5.1	16.9	0.9	13.4	22.8
1996	6.4	4.2	1.6	12.2	3.2	6.0	2.3	5.1	16.6	0.9	13.0	22.5
1997	6.4	4.2	1.6	12.2	3.1	6.0	2.4	5.1	16.6	0.9	13.3	22.5
1998	6.5	4.2	1.5	12.2	3.0	5.9	2.3	5.1	16.3	0.9	13.6	22.1
1999	6.5	4.3	1.6	12.4	3.0	5.7	2.4	4.7	15.8	0.9	13.8	21.9
2000	6.7	4.3	1.6	12.6	3.0	5.7	2.5	4.8	15.8	0.9	13.5	22.3

Table 25. Magnesium Contributed from Major Food Groups to the U.S. Food Supply, Selected Years—Continued

Year	Fruits			Vegetables					Fats and Oils						Sugars & sweeteners	Miscellaneous
	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Margarine	Shortening	Lard & beef tallow	Salad, cooking & other edible oils	Total		
								Percent								
1909-19	0.4	4.0	4.4	10.4	1.3	1.6	5.8	19.0	0.1	0.0	0.0	0.0	0.0	0.1	2.0	6.4
1920-29	0.6	4.6	5.2	9.2	2.0	1.5	6.6	19.4	0.1	0.0	0.0	0.0	0.0	0.1	1.5	9.1
1930-39	1.0	4.4	5.4	8.3	2.4	1.7	6.9	19.3	0.1	0.0	0.0	0.0	0.0	0.1	1.4	10.7
1940-49	1.5	3.8	5.3	7.3	2.3	2.0	6.8	18.4	0.1	0.0	0.0	0.0	0.0	0.1	1.3	12.1
1950-59	1.6	4.2	5.8	7.0	1.9	2.1	6.4	17.5	0.1	0.1	0.0	0.0	0.0	0.1	0.7	12.1
1960-69	1.6	3.9	5.6	6.8	1.6	1.9	6.0	16.3	0.0	0.1	0.0	0.0	0.0	0.1	0.8	13.1
1970	2.0	3.9	5.9	6.6	1.3	2.3	6.3	16.6	0.0	0.1	0.0	0.0	0.0	0.1	0.8	13.0
1971	2.1	3.9	6.0	6.3	1.3	2.4	6.3	16.4	0.0	0.1	0.0	0.0	0.0	0.1	0.8	12.9
1972	2.3	3.7	5.9	6.4	1.4	2.4	6.2	16.3	0.0	0.1	0.0	0.0	0.0	0.1	0.8	14.0
1973	2.2	3.7	5.9	6.2	1.4	2.2	6.4	16.2	0.0	0.1	0.0	0.0	0.0	0.1	0.9	13.4
1974	2.4	3.7	6.1	6.0	1.4	2.3	6.3	16.1	0.0	0.1	0.0	0.0	0.0	0.1	0.9	12.9
1975	2.5	3.9	6.4	6.4	1.4	2.4	6.5	16.6	0.0	0.1	0.0	0.0	0.0	0.2	0.9	11.8
1976	2.5	3.8	6.3	6.1	1.4	2.4	6.3	16.2	0.0	0.1	0.0	0.0	0.0	0.2	0.9	12.6
1977	2.5	4.0	6.5	6.2	1.3	2.3	6.4	16.2	0.0	0.1	0.0	0.0	0.0	0.1	0.9	10.8
1978	2.3	4.1	6.4	6.0	1.3	2.3	6.4	15.9	0.0	0.1	0.0	0.0	0.0	0.1	0.9	11.5
1979	2.3	4.1	6.4	6.0	1.4	2.4	6.2	16.0	0.0	0.1	0.0	0.0	0.0	0.1	0.8	11.5
1980	2.5	4.2	6.7	6.1	1.4	2.4	6.4	16.3	0.0	0.1	0.0	0.0	0.0	0.1	0.8	11.4
1981	2.3	4.3	6.6	5.9	1.4	2.3	6.3	16.0	0.0	0.1	0.0	0.0	0.0	0.1	0.8	11.7
1982	2.3	4.4	6.6	5.8	1.4	2.3	6.1	15.7	0.0	0.1	0.0	0.0	0.0	0.1	0.8	11.6
1983	2.6	4.2	6.8	5.9	1.3	2.3	5.8	15.4	0.0	0.1	0.0	0.0	0.0	0.1	0.8	12.0
1984	2.1	4.4	6.6	5.9	1.4	2.4	5.9	15.6	0.0	0.1	0.0	0.0	0.0	0.1	0.8	12.5
1985	2.1	4.3	6.4	5.6	1.4	2.2	5.6	14.8	0.0	0.1	0.0	0.0	0.0	0.1	0.8	12.6
1986	2.3	4.4	6.7	5.7	1.3	2.2	5.5	14.7	0.0	0.1	0.0	0.0	0.0	0.1	0.8	12.6
1987	2.2	4.6	6.8	5.5	1.3	2.2	5.1	14.0	0.0	0.1	0.0	0.0	0.0	0.1	0.8	12.6
1988	2.2	4.4	6.6	5.3	1.3	2.1	5.1	13.7	0.0	0.1	0.0	0.0	0.0	0.1	0.8	12.0
1989	2.0	4.5	6.5	5.5	1.3	2.3	5.1	14.1	0.0	0.1	0.0	0.0	0.0	0.1	0.8	12.6
1990	1.7	4.2	5.9	5.1	1.3	2.3	5.1	13.8	0.0	0.1	0.0	0.0	0.0	0.1	0.8	13.2
1991	1.7	4.2	5.9	5.5	1.3	2.3	5.0	14.0	0.0	0.1	0.0	0.0	0.0	0.1	0.8	13.4
1992	2.2	4.3	6.5	5.3	1.3	2.2	5.0	13.8	0.0	0.1	0.0	0.0	0.0	0.1	0.8	13.2
1993	2.2	4.4	6.5	5.5	1.4	2.3	5.0	14.2	0.0	0.1	0.0	0.0	0.0	0.1	0.8	12.5
1994	2.2	4.3	6.6	5.5	1.6	2.3	5.2	14.6	0.0	0.1	0.0	0.0	0.0	0.1	0.9	11.5
1995	2.3	4.3	6.6	5.6	1.5	2.3	5.1	14.6	0.0	0.1	0.0	0.0	0.0	0.1	0.9	11.3
1996	2.5	4.3	6.8	5.7	1.6	2.3	5.0	14.6	0.0	0.1	0.0	0.0	0.0	0.1	0.8	12.5
1997	2.3	4.3	6.6	5.6	1.7	2.2	5.1	14.7	0.0	0.1	0.0	0.0	0.0	0.1	0.8	12.4
1998	2.4	4.3	6.7	5.4	1.6	2.3	5.1	14.3	0.0	0.1	0.0	0.0	0.0	0.1	0.8	13.0
1999	2.2	4.5	6.7	5.4	1.6	2.2	5.2	14.4	0.0	0.1	0.0	0.0	0.0	0.1	0.8	13.1
2000	2.1	4.3	6.4	5.4	1.9	2.2	4.6	14.0	0.0	0.1	0.0	0.0	0.0	0.1	0.8	13.6

Table 26. Iron Contributed from Major Food Groups to the U.S. Food Supply, Selected Years

Year	Meat, poultry, & fish				Dairy products							
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total	Eggs	Legumes, nuts & soy	Grain products
						Percent						
1909-19	16.1	1.6	1.9	19.6	1.0	0.2	0.2	0.2	1.6	4.2	12.7	33.0
1920-29	15.7	1.7	1.9	19.3	1.1	0.2	0.3	0.4	2.0	4.7	12.2	28.9
1930-39	15.0	1.8	1.6	18.4	1.2	0.2	0.3	0.5	2.2	4.6	14.1	26.2
1940-49	15.5	2.1	1.4	18.9	1.2	0.1	0.4	0.6	2.4	4.6	12.2	31.6
1950-59	16.1	2.6	1.4	20.2	1.2	0.1	0.5	0.6	2.5	5.1	10.8	35.1
1960-69	17.1	3.3	1.4	21.9	1.1	0.2	0.6	0.6	2.5	4.3	9.9	36.7
1970	17.6	3.5	1.6	22.7	1.0	0.3	0.6	0.5	2.4	4.0	9.3	36.4
1971	17.6	3.4	1.4	22.4	0.9	0.3	0.7	0.5	2.5	3.9	9.2	37.0
1972	17.4	3.6	1.5	22.5	0.9	0.3	0.7	0.5	2.5	3.9	9.2	36.4
1973	16.0	3.4	1.6	21.0	0.9	0.3	0.7	0.5	2.5	3.7	10.4	37.5
1974	16.7	3.3	1.6	21.6	0.8	0.3	0.7	0.5	2.4	3.5	8.8	39.8
1975	15.4	3.1	1.5	20.1	0.8	0.3	0.7	0.5	2.3	3.4	10.0	40.7
1976	15.9	3.3	1.4	20.6	0.7	0.4	0.7	0.5	2.3	3.2	9.5	40.5
1977	15.9	3.3	1.6	20.8	0.7	0.4	0.8	0.5	2.4	3.2	9.7	40.7
1978	15.6	3.5	1.6	20.6	0.7	0.4	0.8	0.5	2.4	3.4	9.1	40.9
1979	14.3	3.6	1.5	19.4	0.6	0.4	0.8	0.5	2.4	3.3	9.8	42.0
1980	14.5	3.6	1.4	19.6	0.6	0.4	0.8	0.5	2.4	3.3	8.8	42.5
1981	14.4	3.7	1.6	19.8	0.6	0.4	0.9	0.5	2.3	3.2	9.0	42.4
1982	13.8	3.6	1.5	18.9	0.5	0.4	0.9	0.5	2.4	3.1	9.9	42.6
1983	12.5	3.2	1.4	17.1	0.5	0.4	0.8	0.4	2.1	2.7	8.7	48.8
1984	12.4	3.2	1.5	17.1	0.5	0.4	0.8	0.5	2.2	2.7	7.7	49.0
1985	12.0	3.1	1.6	16.7	0.4	0.4	0.8	0.5	2.1	2.5	8.8	49.1
1986	12.0	3.2	1.3	16.5	0.4	0.4	0.8	0.5	2.1	2.5	8.3	49.9
1987	11.4	3.4	1.5	16.4	0.4	0.4	0.9	0.5	2.1	2.5	7.2	51.7
1988	11.1	3.4	1.4	15.9	0.3	0.4	0.8	0.4	2.0	2.3	8.2	52.2
1989	10.9	3.5	1.5	15.9	0.3	0.4	0.8	0.4	2.0	2.2	7.5	52.3
1990	10.3	3.5	1.4	15.2	0.3	0.4	0.8	0.4	2.0	2.1	7.6	53.3
1991	10.0	3.6	1.4	15.1	0.3	0.4	0.8	0.4	1.9	2.1	7.9	52.9
1992	9.9	3.6	1.4	14.9	0.3	0.4	0.8	0.4	1.9	2.1	8.0	53.2
1993	9.7	3.7	1.4	14.8	0.2	0.4	0.8	0.4	1.9	2.1	7.8	53.6
1994	10.0	3.7	1.3	15.0	0.2	0.4	0.8	0.5	2.0	2.1	8.0	53.0
1995	10.3	3.7	1.4	15.5	0.2	0.4	0.8	0.4	1.9	2.1	8.0	52.6
1996	9.9	3.8	1.4	15.1	0.2	0.4	0.8	0.4	1.9	2.1	7.7	52.5
1997	9.8	3.8	1.3	14.9	0.2	0.4	0.9	0.4	2.0	2.1	7.9	52.6
1998	10.0	3.8	1.4	15.1	0.2	0.4	0.9	0.4	1.9	2.1	8.0	51.9
1999	9.9	3.8	1.4	15.2	0.2	0.4	0.9	0.4	1.9	2.2	8.1	51.8
2000	10.2	3.8	1.5	15.6	0.2	0.4	0.9	0.4	1.9	2.2	7.9	52.1

Table 26. Iron Contributed from Major Food Groups to the U.S. Food Supply, Selected Years—Continued

Year	Fruits			Vegetables					Fats and Oils						Sugars & sweeteners	Miscellaneous
	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Margarine	Shortening	Lard & beef tallow	Salad, cooking & other edible oils	Total		
								Percent								
1909-19	0.2	3.1	3.3	9.7	1.7	1.9	5.3	18.6	0.2	0.0	0.0	0.0	0.0	0.3	3.0	3.5
1920-29	0.3	3.7	4.0	8.8	2.5	1.8	6.9	20.0	0.3	0.0	0.0	0.0	0.0	0.3	2.7	5.9
1930-39	0.4	3.6	4.0	8.0	2.9	2.1	7.5	20.4	0.3	0.0	0.0	0.0	0.0	0.3	2.5	7.3
1940-49	0.6	2.9	3.6	6.3	2.4	2.2	6.7	17.7	0.2	0.0	0.0	0.0	0.0	0.2	2.2	6.7
1950-59	0.6	2.8	3.5	5.5	1.8	2.1	5.9	15.3	0.1	0.0	0.0	0.0	0.0	0.2	1.3	6.1
1960-69	0.6	2.5	3.1	5.0	1.4	1.8	5.3	13.6	0.1	0.0	0.0	0.0	0.0	0.1	1.3	6.7
1970	0.6	2.5	3.1	4.9	1.2	2.1	5.5	13.7	0.1	0.0	0.0	0.0	0.0	0.1	1.3	7.1
1971	0.7	2.4	3.1	4.7	1.2	2.2	5.4	13.5	0.1	0.0	0.0	0.0	0.0	0.1	1.3	7.1
1972	0.7	2.2	2.9	4.8	1.2	2.2	5.3	13.5	0.1	0.0	0.0	0.0	0.0	0.1	1.3	7.7
1973	0.7	2.2	2.9	4.7	1.2	2.0	5.4	13.3	0.1	0.0	0.0	0.0	0.0	0.1	1.3	7.3
1974	0.7	2.2	2.8	4.5	1.2	2.0	5.2	12.9	0.1	0.0	0.0	0.0	0.0	0.1	1.3	6.8
1975	0.7	2.3	2.9	4.7	1.2	2.0	5.2	13.1	0.1	0.0	0.0	0.0	0.0	0.1	1.3	6.1
1976	0.7	2.2	2.9	4.6	1.1	2.0	5.1	12.9	0.1	0.0	0.0	0.0	0.0	0.1	1.3	6.6
1977	0.7	2.3	3.0	4.7	1.1	2.0	5.2	12.9	0.1	0.0	0.0	0.0	0.0	0.1	1.3	6.0
1978	0.7	2.4	3.0	4.6	1.1	2.0	5.2	12.9	0.1	0.0	0.0	0.0	0.0	0.1	1.3	6.3
1979	0.7	2.3	3.0	4.5	1.2	2.0	5.1	12.7	0.1	0.0	0.0	0.0	0.0	0.1	1.2	6.1
1980	0.7	2.4	3.1	4.4	1.1	2.1	5.2	12.8	0.1	0.0	0.0	0.0	0.0	0.1	1.2	6.3
1981	0.7	2.4	3.0	4.4	1.1	1.9	5.1	12.6	0.1	0.0	0.0	0.0	0.0	0.1	1.1	6.5
1982	0.6	2.5	3.1	4.3	1.2	1.9	4.9	12.3	0.1	0.0	0.0	0.0	0.0	0.1	1.1	6.5
1983	0.6	2.1	2.8	3.9	1.0	1.7	4.2	10.7	0.1	0.0	0.0	0.0	0.0	0.1	1.0	6.0
1984	0.5	2.3	2.8	4.0	1.0	1.8	4.2	11.0	0.1	0.0	0.0	0.0	0.0	0.1	1.0	6.5
1985	0.5	2.2	2.7	3.8	1.0	1.6	4.1	10.5	0.0	0.0	0.0	0.0	0.0	0.1	1.0	6.4
1986	0.5	2.2	2.7	3.9	0.9	1.6	4.0	10.4	0.0	0.0	0.0	0.0	0.0	0.1	1.0	6.5
1987	0.5	2.3	2.8	3.7	0.9	1.6	3.7	9.9	0.0	0.0	0.0	0.0	0.0	0.1	1.0	6.4
1988	0.5	2.2	2.7	3.5	0.9	1.5	3.7	9.6	0.0	0.0	0.0	0.0	0.0	0.1	0.9	6.0
1989	0.5	2.2	2.7	3.7	0.9	1.6	3.7	9.9	0.0	0.0	0.0	0.0	0.0	0.1	1.0	6.5
1990	0.4	2.1	2.5	3.4	0.9	1.7	3.7	9.6	0.0	0.0	0.0	0.0	0.0	0.1	0.9	6.7
1991	0.4	2.0	2.4	3.7	0.9	1.7	3.6	9.8	0.0	0.0	0.0	0.0	0.0	0.1	1.0	6.9
1992	0.5	2.0	2.5	3.5	0.9	1.6	3.6	9.5	0.0	0.0	0.0	0.0	0.0	0.1	1.0	6.8
1993	0.5	2.1	2.6	3.7	0.9	1.6	3.6	9.8	0.0	0.0	0.0	0.0	0.0	0.1	1.0	6.4
1994	0.5	2.1	2.5	3.7	1.0	1.6	3.7	10.1	0.0	0.0	0.0	0.0	0.0	0.1	1.0	6.2
1995	0.5	2.0	2.5	3.8	1.0	1.6	3.6	10.0	0.0	0.0	0.0	0.0	0.0	0.1	1.0	6.3
1996	0.5	2.0	2.6	3.9	1.1	1.6	3.6	10.1	0.0	0.0	0.0	0.0	0.0	0.1	1.0	6.9
1997	0.5	2.0	2.5	3.8	1.1	1.6	3.7	10.2	0.0	0.0	0.0	0.0	0.0	0.1	1.0	6.7
1998	0.5	2.0	2.5	3.7	1.1	1.6	3.6	10.0	0.0	0.0	0.0	0.0	0.0	0.1	1.0	7.2
1999	0.5	2.0	2.5	3.7	1.1	1.6	3.7	10.0	0.0	0.0	0.0	0.0	0.0	0.1	1.0	7.2
2000	0.4	2.0	2.4	3.6	1.3	1.5	3.4	9.8	0.0	0.0	0.0	0.0	0.0	0.1	0.9	7.1

Table 27. Zinc Contributed from Major Food Groups to the U.S. Food Supply, Selected Years

Year	Meat, poultry, & fish				Dairy products							
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total	Eggs	Legumes, nuts & soy	Grain products
						Percent						
1909-19	30.1	1.8	10.5	42.5	8.0	2.3	1.2	1.3	12.7	3.5	5.6	24.4
1920-29	30.0	1.9	8.4	40.2	9.3	2.1	1.4	2.1	15.0	4.0	5.8	22.1
1930-39	29.8	2.1	6.0	37.9	10.0	2.0	1.7	3.2	16.9	3.9	6.9	20.5
1940-49	32.5	2.7	4.8	39.9	11.3	1.5	2.0	4.2	19.1	4.2	6.7	16.8
1950-59	34.7	3.6	4.2	42.5	11.4	1.2	2.6	5.0	20.3	4.8	6.2	14.1
1960-69	37.4	4.9	2.9	45.2	9.9	1.8	3.2	4.8	19.7	4.1	6.1	13.1
1970	38.8	5.4	2.7	46.9	8.4	2.8	3.6	4.6	19.4	3.9	5.9	12.0
1971	38.9	5.4	2.6	47.0	8.2	2.9	3.8	4.5	19.4	3.9	5.9	11.9
1972	38.8	5.7	2.8	47.3	8.0	3.1	4.2	4.3	19.6	3.8	6.0	11.1
1973	37.0	5.6	2.8	45.4	7.9	3.2	4.4	4.6	20.1	3.7	6.7	11.7
1974	35.3	5.0	2.6	42.9	6.6	2.9	4.2	3.7	17.4	3.3	5.3	20.4
1975	34.4	5.0	2.5	42.0	6.5	2.7	4.2	3.4	16.9	3.2	6.0	21.0
1976	35.1	5.1	2.5	42.8	6.1	3.2	4.4	3.4	17.1	3.1	5.6	20.6
1977	34.9	5.2	2.5	42.6	5.9	3.4	4.5	3.4	17.2	3.0	5.6	21.0
1978	34.0	5.5	2.6	42.0	5.7	3.4	4.8	3.4	17.4	3.2	5.4	21.3
1979	32.1	5.8	2.5	40.3	5.5	3.5	4.9	3.5	17.4	3.2	5.9	22.6
1980	32.4	5.9	2.5	40.8	5.2	3.6	5.0	3.4	17.2	3.1	5.2	22.9
1981	32.2	6.1	2.6	40.9	5.0	3.7	5.2	3.1	16.9	3.1	5.4	23.0
1982	31.2	6.0	2.5	39.8	4.7	3.7	5.6	3.1	17.1	3.1	6.0	23.3
1983	31.6	6.0	2.5	40.1	4.5	3.8	5.7	3.2	17.1	3.0	5.9	23.0
1984	31.4	6.1	2.5	39.9	4.4	3.7	5.9	3.3	17.4	2.9	5.4	23.3
1985	30.8	6.1	2.5	39.4	4.1	3.8	6.0	3.3	17.3	2.8	6.0	23.5
1986	30.7	6.3	2.4	39.4	3.8	4.0	6.0	3.4	17.3	2.7	5.8	23.9
1987	29.8	6.9	1.8	38.5	3.7	4.1	6.3	3.4	17.6	2.8	5.3	25.0
1988	29.4	6.9	1.6	37.9	3.5	4.1	6.1	3.3	16.9	2.6	5.9	26.1
1989	28.6	7.1	1.7	37.4	3.2	4.4	6.1	3.1	16.8	2.5	5.5	26.8
1990	27.2	7.3	2.1	36.7	2.9	4.5	6.1	3.4	16.8	2.5	5.4	27.7
1991	26.5	7.5	2.2	36.2	2.8	4.5	6.1	3.2	16.6	2.4	5.6	28.1
1992	26.1	7.5	2.3	35.9	2.6	4.4	6.2	3.2	16.4	2.4	5.6	28.8
1993	26.0	7.8	2.3	36.1	2.5	4.5	6.3	3.2	16.5	2.4	5.5	28.5
1994	26.6	7.8	2.2	36.7	2.5	4.5	6.4	3.6	17.0	2.4	5.6	27.4
1995	27.3	7.9	2.3	37.5	2.4	4.6	6.6	3.3	16.9	2.4	5.5	26.7
1996	26.9	8.1	2.3	37.3	2.4	4.6	6.7	3.4	17.1	2.5	5.5	26.1
1997	27.0	8.2	1.7	36.9	2.4	4.6	6.9	3.5	17.4	2.5	5.7	25.9
1998	27.2	8.1	2.3	37.6	2.3	4.5	6.8	3.5	17.0	2.5	5.9	25.3
1999	27.0	8.3	2.3	37.5	2.2	4.4	6.9	3.1	16.7	2.6	5.9	25.8
2000	27.2	8.3	2.3	37.8	2.2	4.3	7.1	3.1	16.8	2.6	5.7	25.6

Table 27. Zinc Contributed from Major Food Groups to the U.S. Food Supply, Selected Years—Continued

Year	Fruits			Vegetables					Fats and Oils						Sugars & sweeteners	Miscellaneous
	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Margarine	Shortening	Lard & beef tallow	Salad, cooking & other edible oils	Total		
								Percent								
1909-19	0.1	1.1	1.2	3.9	0.7	0.4	2.8	7.9	0.1	0.0	0.0	0.1	0.0	0.2	0.7	1.3
1920-29	0.1	1.3	1.4	3.6	1.0	0.4	3.4	8.4	0.1	0.0	0.0	0.1	0.0	0.2	0.7	2.2
1930-39	0.2	1.3	1.5	3.3	1.1	0.5	3.8	8.7	0.1	0.0	0.0	0.1	0.0	0.2	0.7	2.8
1940-49	0.4	1.1	1.5	2.8	1.0	0.6	3.7	8.1	0.1	0.0	0.0	0.1	0.0	0.2	0.6	2.9
1950-59	0.3	1.1	1.4	2.6	0.7	0.7	3.3	7.3	0.0	0.0	0.0	0.1	0.0	0.2	0.5	2.7
1960-69	0.3	1.0	1.3	2.6	0.6	0.6	3.0	6.8	0.0	0.0	0.0	0.1	0.0	0.1	0.5	3.0
1970	0.3	0.9	1.3	2.6	0.5	0.7	3.0	6.8	0.0	0.0	0.0	0.0	0.0	0.1	0.5	3.2
1971	0.4	0.9	1.3	2.4	0.5	0.8	3.0	6.7	0.0	0.0	0.0	0.0	0.0	0.1	0.5	3.2
1972	0.4	0.9	1.2	2.5	0.5	0.7	3.0	6.8	0.0	0.0	0.0	0.0	0.0	0.1	0.5	3.6
1973	0.4	0.9	1.3	2.5	0.6	0.7	3.2	7.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	3.5
1974	0.3	0.8	1.2	2.2	0.5	0.6	2.8	6.1	0.0	0.0	0.0	0.0	0.0	0.1	0.5	2.9
1975	0.4	0.9	1.2	2.4	0.5	0.7	2.9	6.4	0.0	0.0	0.0	0.0	0.0	0.1	0.5	2.6
1976	0.4	0.8	1.2	2.3	0.5	0.7	2.8	6.2	0.0	0.0	0.0	0.0	0.0	0.1	0.5	2.9
1977	0.4	0.9	1.2	2.3	0.5	0.7	2.8	6.2	0.0	0.0	0.0	0.0	0.0	0.1	0.5	2.6
1978	0.3	0.9	1.2	2.2	0.5	0.6	2.8	6.2	0.0	0.0	0.0	0.0	0.0	0.1	0.5	2.7
1979	0.3	0.9	1.2	2.2	0.5	0.7	2.8	6.3	0.0	0.0	0.0	0.0	0.0	0.1	0.5	2.7
1980	0.4	0.9	1.3	2.2	0.5	0.7	2.9	6.3	0.0	0.0	0.0	0.0	0.0	0.1	0.5	2.7
1981	0.3	0.9	1.3	2.2	0.5	0.6	2.8	6.2	0.0	0.0	0.0	0.0	0.0	0.1	0.4	2.9
1982	0.3	0.9	1.3	2.2	0.5	0.7	2.7	6.1	0.0	0.0	0.0	0.0	0.0	0.1	0.4	2.9
1983	0.4	0.9	1.3	2.2	0.5	0.6	2.7	6.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	3.1
1984	0.3	0.9	1.3	2.2	0.5	0.7	2.7	6.1	0.0	0.0	0.0	0.0	0.0	0.1	0.4	3.2
1985	0.3	0.9	1.2	2.2	0.5	0.6	2.6	5.9	0.0	0.0	0.0	0.0	0.0	0.1	0.4	3.3
1986	0.3	0.9	1.3	2.2	0.5	0.6	2.5	5.9	0.0	0.0	0.0	0.0	0.0	0.1	0.4	3.3
1987	0.3	1.0	1.3	2.1	0.5	0.7	2.4	5.7	0.0	0.0	0.0	0.0	0.0	0.0	0.4	3.4
1988	0.3	1.0	1.3	2.1	0.5	0.6	2.4	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.4	3.2
1989	0.3	1.0	1.3	2.1	0.5	0.7	2.5	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.4	3.4
1990	0.2	0.9	1.2	2.0	0.5	0.7	2.5	5.7	0.0	0.0	0.0	0.0	0.0	0.0	0.4	3.6
1991	0.3	0.9	1.1	2.1	0.5	0.7	2.4	5.7	0.0	0.0	0.0	0.0	0.0	0.0	0.4	3.7
1992	0.3	0.9	1.2	2.0	0.5	0.7	2.4	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.4	3.6
1993	0.3	0.9	1.2	2.2	0.5	0.7	2.4	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.5	3.5
1994	0.3	0.9	1.2	2.2	0.6	0.7	2.5	6.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	3.3
1995	0.3	0.9	1.2	2.2	0.6	0.7	2.5	6.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	3.2
1996	0.4	0.9	1.3	2.3	0.6	0.7	2.5	6.1	0.0	0.0	0.0	0.0	0.0	0.1	0.5	3.7
1997	0.3	0.9	1.3	2.3	0.6	0.7	2.6	6.2	0.0	0.0	0.0	0.0	0.0	0.1	0.5	3.6
1998	0.4	0.9	1.3	2.2	0.6	0.7	2.5	6.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	3.8
1999	0.3	0.9	1.3	2.2	0.6	0.7	2.6	6.1	0.0	0.0	0.0	0.0	0.0	0.1	0.5	3.7
2000	0.3	0.9	1.2	2.2	0.8	0.7	2.4	5.9	0.0	0.0	0.0	0.0	0.0	0.1	0.5	3.8

Table 28. Copper Contributed from Major Food Groups to the U.S. Food Supply, Selected Years

Year	Meat, poultry, & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
						Percent						
1909-19	13.1	0.6	4.5	18.2	1.6	0.4	0.1	0.2	2.2	0.2	12.1	31.6
1920-29	12.6	0.6	3.6	16.9	1.8	0.4	0.1	0.3	2.5	0.3	12.2	28.1
1930-39	11.9	0.7	2.6	15.2	1.9	0.3	0.1	0.3	2.7	0.3	14.2	25.1
1940-49	14.0	0.9	2.3	17.1	2.2	0.3	0.2	0.5	3.1	0.3	15.4	21.8
1950-59	15.0	1.3	2.2	18.5	2.4	0.3	0.2	0.5	3.5	0.3	16.8	19.7
1960-69	15.4	1.8	1.9	19.1	2.3	0.4	0.3	0.5	3.6	0.3	17.4	18.9
1970	15.9	1.9	1.9	19.7	2.0	0.6	0.3	0.5	3.5	0.3	17.1	17.7
1971	16.1	1.9	1.9	19.9	2.0	0.6	0.4	0.5	3.5	0.3	17.1	17.5
1972	15.2	2.0	1.9	19.1	1.9	0.7	0.4	0.5	3.5	0.3	19.3	16.2
1973	13.9	1.9	1.8	17.6	1.9	0.7	0.4	0.5	3.5	0.3	21.1	16.7
1974	14.8	1.8	1.9	18.6	1.7	0.7	0.4	0.5	3.3	0.3	20.0	18.8
1975	13.2	1.8	1.8	16.8	1.7	0.6	0.4	0.5	3.2	0.2	22.2	19.2
1976	13.4	1.8	1.7	17.0	1.6	0.8	0.4	0.5	3.2	0.2	21.9	19.0
1977	13.4	1.8	1.8	17.0	1.5	0.8	0.4	0.5	3.3	0.2	22.6	19.2
1978	13.0	1.9	1.8	16.7	1.5	0.8	0.4	0.5	3.3	0.2	22.5	19.3
1979	12.5	2.0	1.7	16.2	1.4	0.8	0.4	0.5	3.2	0.2	23.0	19.7
1980	12.8	2.0	1.7	16.6	1.3	0.9	0.4	0.5	3.2	0.2	21.7	20.1
1981	12.6	2.1	1.8	16.5	1.2	0.9	0.4	0.5	3.1	0.2	22.2	20.0
1982	11.7	2.0	1.7	15.4	1.1	0.9	0.5	0.5	3.0	0.2	23.3	20.2
1983	12.0	2.0	1.7	15.7	1.1	0.9	0.5	0.5	3.0	0.2	23.0	19.7
1984	12.0	2.0	1.8	15.7	1.1	0.9	0.5	0.6	3.1	0.2	21.9	19.7
1985	11.4	1.9	1.9	15.2	1.0	0.9	0.5	0.6	3.0	0.2	22.9	20.0
1986	11.4	2.0	1.8	15.2	1.0	1.0	0.5	0.6	3.0	0.2	22.0	20.5
1987	11.2	2.2	1.6	15.0	0.9	1.0	0.5	0.6	3.0	0.2	20.8	21.9
1988	10.8	2.2	1.5	14.5	0.9	1.0	0.5	0.6	2.9	0.2	22.0	22.4
1989	10.9	2.3	1.5	14.7	0.8	1.0	0.5	0.6	2.9	0.2	21.1	22.3
1990	10.4	2.3	1.7	14.4	0.7	1.0	0.5	0.6	2.8	0.2	20.8	22.8
1991	9.8	2.4	1.7	13.9	0.7	1.1	0.5	0.6	2.8	0.2	21.0	22.6
1992	9.8	2.4	1.7	13.9	0.6	1.0	0.5	0.6	2.7	0.2	21.0	23.0
1993	9.7	2.4	1.7	13.8	0.6	1.0	0.5	0.6	2.7	0.2	20.8	23.4
1994	10.0	2.4	1.7	14.1	0.6	1.1	0.5	0.6	2.8	0.2	21.0	23.4
1995	10.4	2.4	1.7	14.6	0.6	1.1	0.5	0.6	2.8	0.2	20.9	23.4
1996	9.9	2.4	1.7	14.1	0.6	1.1	0.5	0.6	2.7	0.2	20.3	23.2
1997	9.9	2.4	1.5	13.8	0.6	1.1	0.5	0.6	2.8	0.2	20.8	23.3
1998	9.9	2.4	1.8	14.1	0.6	1.1	0.5	0.6	2.7	0.2	21.1	22.4
1999	9.8	2.4	1.8	14.0	0.6	1.1	0.5	0.5	2.7	0.2	21.2	22.3
2000	10.1	2.4	1.8	14.3	0.6	1.1	0.5	0.6	2.7	0.2	20.8	22.4

Table 28. Copper Contributed from Major Food Groups to the U.S. Food Supply, Selected Years—Continued

Year	Fruits			Vegetables					Fats and Oils						Sugars & sweeteners	Miscellaneous
	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Margarine	Shortening	Lard & beef tallow	Salad, cooking & other edible oils	Total		
								Percent								
1909-19	0.4	5.6	6.0	10.1	2.7	2.6	4.2	19.7	0.1	0.0	0.0	0.0	0.0	0.1	3.3	6.5
1920-29	0.6	6.3	6.9	8.9	3.1	2.4	5.1	19.6	0.1	0.0	0.0	0.0	0.0	0.1	3.9	9.6
1930-39	0.9	6.1	7.0	8.1	3.3	2.8	5.7	19.8	0.1	0.0	0.0	0.0	0.0	0.1	3.9	11.8
1940-49	1.4	5.5	6.9	7.1	2.8	3.5	5.7	19.1	0.1	0.0	0.0	0.0	0.0	0.1	3.6	12.7
1950-59	1.5	5.6	7.1	6.8	2.0	3.8	5.5	18.0	0.1	0.0	0.0	0.0	0.0	0.1	3.9	12.1
1960-69	1.5	5.1	6.6	6.4	1.6	3.6	5.2	16.8	0.1	0.0	0.0	0.0	0.0	0.1	4.2	13.1
1970	1.7	5.0	6.7	6.3	1.5	4.3	5.3	17.4	0.0	0.0	0.0	0.0	0.0	0.0	4.4	13.1
1971	1.8	5.0	6.8	5.9	1.4	4.6	5.3	17.3	0.0	0.0	0.0	0.0	0.0	0.0	4.4	13.0
1972	1.9	4.5	6.4	5.9	1.4	4.4	5.1	16.9	0.0	0.0	0.0	0.0	0.0	0.0	4.4	13.9
1973	1.9	4.6	6.5	5.8	1.5	4.1	5.3	16.6	0.0	0.0	0.0	0.0	0.0	0.0	4.4	13.3
1974	1.9	4.5	6.4	5.5	1.5	4.1	5.2	16.3	0.0	0.0	0.0	0.0	0.0	0.0	4.2	12.0
1975	2.0	4.8	6.8	5.8	1.5	4.2	5.2	16.8	0.0	0.0	0.0	0.0	0.0	0.0	4.1	10.7
1976	2.0	4.6	6.6	5.6	1.4	4.3	5.1	16.4	0.0	0.0	0.0	0.0	0.0	0.0	4.1	11.7
1977	2.0	4.7	6.7	5.6	1.3	4.2	5.3	16.3	0.0	0.0	0.0	0.0	0.0	0.0	4.2	10.3
1978	1.9	4.9	6.7	5.5	1.3	4.0	5.3	16.2	0.0	0.0	0.0	0.0	0.0	0.0	4.2	10.8
1979	1.8	4.8	6.7	5.5	1.3	4.2	5.3	16.3	0.0	0.0	0.0	0.0	0.0	0.0	4.0	10.6
1980	2.0	5.0	7.0	5.5	1.3	4.3	5.4	16.4	0.0	0.0	0.0	0.0	0.0	0.0	4.0	10.8
1981	1.9	5.0	6.9	5.4	1.3	4.0	5.2	16.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	11.3
1982	1.8	5.1	7.0	5.3	1.3	4.0	5.1	15.8	0.0	0.0	0.0	0.0	0.0	0.0	3.7	11.4
1983	2.1	5.0	7.1	5.4	1.2	4.0	5.1	15.7	0.0	0.0	0.0	0.0	0.0	0.0	3.7	11.8
1984	1.7	5.3	7.0	5.4	1.3	4.4	5.0	16.2	0.0	0.0	0.0	0.0	0.0	0.0	3.7	12.5
1985	1.7	5.1	6.8	5.2	1.3	4.0	5.0	15.4	0.0	0.0	0.0	0.0	0.0	0.0	3.6	12.9
1986	1.9	5.2	7.1	5.3	1.2	4.0	4.9	15.3	0.0	0.0	0.0	0.0	0.0	0.0	3.5	13.1
1987	1.8	5.6	7.3	5.2	1.1	4.0	4.7	14.9	0.0	0.0	0.0	0.0	0.0	0.0	3.6	13.1
1988	1.8	5.3	7.1	5.0	1.1	3.8	4.6	14.5	0.0	0.0	0.0	0.0	0.0	0.0	3.6	12.7
1989	1.6	5.4	7.0	5.1	1.1	4.2	4.6	15.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	13.2
1990	1.4	5.1	6.4	4.8	1.1	4.4	4.6	14.9	0.0	0.0	0.0	0.0	0.0	0.0	3.6	13.9
1991	1.4	4.9	6.3	5.1	1.1	4.4	4.6	15.1	0.0	0.0	0.0	0.0	0.0	0.0	3.6	14.5
1992	1.8	5.0	6.7	4.9	1.1	4.1	4.5	14.7	0.0	0.0	0.0	0.0	0.0	0.0	3.6	14.2
1993	1.8	5.0	6.8	5.2	1.1	4.3	4.5	15.1	0.0	0.0	0.0	0.0	0.0	0.0	3.7	13.5
1994	1.8	5.0	6.8	5.2	1.3	4.3	4.7	15.5	0.0	0.0	0.0	0.0	0.0	0.0	3.8	12.3
1995	1.9	4.8	6.7	5.3	1.3	4.3	4.7	15.6	0.0	0.0	0.0	0.0	0.0	0.0	3.9	11.9
1996	2.0	4.9	6.9	5.4	1.3	4.2	4.6	15.5	0.0	0.0	0.0	0.0	0.0	0.0	3.8	13.4
1997	1.8	5.0	6.8	5.3	1.3	4.2	4.8	15.5	0.0	0.0	0.0	0.0	0.0	0.0	3.9	13.0
1998	2.0	4.8	6.8	5.1	1.2	4.2	4.7	15.2	0.0	0.0	0.0	0.0	0.0	0.0	3.8	13.7
1999	1.8	5.0	6.7	5.0	1.2	4.0	4.8	15.1	0.0	0.0	0.0	0.0	0.0	0.0	3.8	13.9
2000	1.7	4.8	6.4	5.0	1.7	3.9	4.3	14.9	0.0	0.0	0.0	0.0	0.0	0.0	3.7	14.5

Table 29. Potassium Contributed from Major Food Groups to the U.S. Food Supply, Selected Years

Year	Meat, poultry, & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
						Percent						
1909-19	10.4	0.8	1.1	12.4	10.9	3.2	0.2	1.8	16.1	1.3	8.2	13.1
1920-29	10.1	0.8	1.2	12.2	12.2	2.8	0.2	2.9	18.1	1.4	7.5	11.2
1930-39	9.5	0.9	1.1	11.5	12.6	2.6	0.2	4.2	19.5	1.4	8.5	9.8
1940-49	10.5	1.1	1.0	12.6	14.4	2.0	0.2	5.6	22.3	1.5	8.3	8.1
1950-59	11.5	1.5	1.1	14.0	15.1	1.6	0.3	7.0	24.0	1.8	8.0	7.1
1960-69	12.4	2.2	1.1	15.7	13.7	2.5	0.4	7.2	23.8	1.6	8.0	6.9
1970	12.9	2.5	1.1	16.6	11.9	3.9	0.5	7.4	23.7	1.5	7.8	6.4
1971	13.2	2.5	1.1	16.8	11.7	4.2	0.5	7.4	23.7	1.5	7.8	6.4
1972	12.9	2.6	1.2	16.8	11.3	4.4	0.5	7.1	23.4	1.5	8.1	6.0
1973	12.0	2.5	1.2	15.8	10.9	4.5	0.6	7.5	23.4	1.4	9.2	6.2
1974	13.1	2.6	1.1	16.8	10.4	4.6	0.6	7.0	22.6	1.4	8.3	6.6
1975	11.8	2.5	1.2	15.5	10.1	4.2	0.6	6.6	21.6	1.4	9.5	6.8
1976	12.2	2.6	1.2	16.0	9.5	5.1	0.6	6.7	22.0	1.3	9.2	6.7
1977	12.4	2.7	1.2	16.3	9.3	5.4	0.7	6.7	22.1	1.3	9.5	6.9
1978	12.1	2.9	1.3	16.3	9.1	5.5	0.7	6.9	22.1	1.4	9.0	6.9
1979	11.6	3.0	1.3	15.8	8.6	5.5	0.7	7.0	21.7	1.4	9.6	7.0
1980	11.9	3.1	1.3	16.3	8.2	5.7	0.7	6.9	21.6	1.4	8.8	7.1
1981	12.0	3.2	1.3	16.5	7.9	5.8	0.7	6.5	21.0	1.3	9.1	7.2
1982	11.4	3.2	1.2	15.8	7.5	5.9	0.8	6.6	20.7	1.3	9.9	7.3
1983	11.6	3.2	1.3	16.1	7.2	6.0	0.8	6.7	20.7	1.3	9.8	7.2
1984	11.6	3.2	1.3	16.2	7.0	5.9	0.8	7.0	20.8	1.3	8.8	7.3
1985	11.5	3.3	1.3	16.1	6.6	6.1	0.9	7.0	20.6	1.2	10.0	7.5
1986	11.5	3.3	1.3	16.2	6.2	6.4	0.9	7.3	20.6	1.2	9.5	7.7
1987	11.3	3.7	1.4	16.4	6.0	6.6	0.9	7.2	20.7	1.2	8.5	8.4
1988	11.4	3.7	1.4	16.5	5.6	6.6	0.9	6.9	20.1	1.2	9.7	8.7
1989	11.2	3.9	1.5	16.5	5.2	7.2	0.9	6.6	19.9	1.1	9.0	8.6
1990	10.8	4.0	1.4	16.2	4.8	7.4	0.9	7.3	20.4	1.1	9.3	8.9
1991	10.8	4.1	1.4	16.2	4.5	7.4	0.9	6.9	19.8	1.1	9.6	8.8
1992	10.8	4.1	1.3	16.3	4.3	7.3	0.9	7.0	19.5	1.1	9.6	8.9
1993	10.6	4.2	1.4	16.2	4.1	7.3	0.9	6.9	19.2	1.1	9.4	9.1
1994	10.7	4.2	1.4	16.3	4.0	7.3	0.9	7.5	19.7	1.1	9.5	9.0
1995	11.0	4.3	1.4	16.7	3.9	7.4	1.0	7.0	19.2	1.1	9.6	9.0
1996	10.5	4.3	1.4	16.1	3.7	7.3	1.0	7.0	19.0	1.1	9.2	9.0
1997	10.4	4.3	1.3	16.1	3.7	7.3	1.0	7.1	19.0	1.1	9.4	9.1
1998	10.7	4.3	1.3	16.3	3.6	7.1	1.0	7.0	18.7	1.1	9.6	8.9
1999	10.8	4.5	1.3	16.5	3.6	7.0	1.0	6.4	18.0	1.1	9.7	8.9
2000	10.9	4.5	1.4	16.8	3.5	6.9	1.0	6.5	18.1	1.1	9.6	9.1

Table 29. Potassium Contributed from Major Food Groups to the U.S. Food Supply, Selected Years—Continued

Year	Fruits			Vegetables					Fats and Oils						Sugars & sweeteners	Miscellaneous
	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Margarine	Shortening	Lard & beef tallow	Salad, cooking & other edible oils	Total		
								Percent								
1909-19	0.8	7.7	8.4	19.5	2.4	3.4	7.8	33.1	0.1	0.0	0.0	0.0	0.0	0.2	1.6	5.6
1920-29	1.1	8.2	9.3	17.1	2.9	3.1	8.6	31.8	0.2	0.0	0.0	0.0	0.0	0.2	1.3	6.9
1930-39	1.7	7.7	9.4	15.2	3.3	3.5	8.8	30.7	0.2	0.0	0.0	0.0	0.0	0.2	1.1	7.8
1940-49	2.5	6.5	9.0	13.1	3.0	4.0	8.2	28.3	0.1	0.1	0.0	0.0	0.0	0.2	1.0	8.8
1950-59	2.7	6.6	9.3	12.3	2.4	4.0	7.5	26.2	0.1	0.1	0.0	0.0	0.0	0.2	0.5	8.8
1960-69	2.8	6.1	8.9	12.4	2.1	3.7	6.9	25.1	0.1	0.1	0.0	0.0	0.0	0.2	0.5	9.2
1970	3.3	6.0	9.3	12.2	1.8	4.4	6.8	25.3	0.1	0.2	0.0	0.0	0.0	0.2	0.5	8.6
1971	3.6	6.0	9.6	11.7	1.8	4.7	6.8	25.0	0.0	0.1	0.0	0.0	0.0	0.2	0.6	8.4
1972	3.8	5.6	9.4	11.9	1.9	4.6	6.7	25.1	0.0	0.2	0.0	0.0	0.0	0.2	0.6	8.9
1973	3.8	5.7	9.5	11.6	2.0	4.3	6.9	24.8	0.0	0.2	0.0	0.0	0.0	0.2	0.6	8.8
1974	4.0	5.8	9.8	11.5	2.0	4.5	7.0	25.0	0.0	0.2	0.0	0.0	0.0	0.2	0.6	8.7
1975	4.3	6.1	10.4	12.2	2.0	4.6	7.1	25.9	0.0	0.2	0.0	0.0	0.0	0.2	0.6	8.1
1976	4.3	5.9	10.2	11.8	1.9	4.7	7.0	25.4	0.0	0.2	0.0	0.0	0.0	0.2	0.6	8.4
1977	4.3	6.2	10.5	11.9	1.9	4.6	7.3	25.6	0.0	0.2	0.0	0.0	0.0	0.2	0.6	6.9
1978	4.0	6.5	10.5	11.7	1.9	4.5	7.3	25.3	0.0	0.2	0.0	0.0	0.0	0.2	0.6	7.6
1979	3.9	6.5	10.5	11.6	2.0	4.7	7.2	25.4	0.0	0.2	0.0	0.0	0.0	0.2	0.6	7.8
1980	4.3	6.7	11.0	11.6	2.0	4.7	7.3	25.7	0.0	0.2	0.0	0.0	0.0	0.2	0.6	7.5
1981	4.0	6.9	10.9	11.6	2.1	4.6	7.3	25.6	0.0	0.2	0.0	0.0	0.0	0.2	0.5	7.6
1982	4.0	7.2	11.2	11.5	2.1	4.6	7.2	25.5	0.0	0.2	0.0	0.0	0.0	0.2	0.5	7.5
1983	4.6	7.0	11.5	11.7	2.0	4.5	6.9	25.1	0.0	0.2	0.0	0.0	0.0	0.2	0.5	7.6
1984	3.8	7.5	11.3	11.7	2.1	4.9	7.0	25.8	0.0	0.2	0.0	0.0	0.0	0.2	0.5	7.9
1985	3.8	7.3	11.1	11.3	2.1	4.5	6.9	24.8	0.0	0.2	0.0	0.0	0.0	0.2	0.5	7.9
1986	4.1	7.4	11.6	11.5	2.0	4.5	6.7	24.7	0.0	0.2	0.0	0.0	0.0	0.2	0.5	7.9
1987	4.0	7.9	11.9	11.3	2.0	4.5	6.5	24.3	0.0	0.1	0.0	0.0	0.0	0.2	0.5	7.9
1988	4.0	7.7	11.7	11.1	2.0	4.3	6.6	23.9	0.0	0.1	0.0	0.0	0.0	0.2	0.5	7.6
1989	3.6	7.8	11.4	11.4	2.0	4.7	6.7	24.8	0.0	0.1	0.0	0.0	0.0	0.2	0.5	7.9
1990	3.1	7.5	10.7	10.8	2.1	4.9	6.7	24.5	0.0	0.2	0.0	0.0	0.0	0.2	0.5	8.2
1991	3.3	7.3	10.6	11.6	2.0	4.9	6.5	24.9	0.0	0.1	0.0	0.0	0.0	0.2	0.5	8.3
1992	4.0	7.4	11.5	11.0	2.1	4.6	6.5	24.3	0.0	0.1	0.0	0.0	0.0	0.2	0.6	8.1
1993	4.0	7.5	11.5	11.5	2.3	4.8	6.6	25.2	0.0	0.1	0.0	0.0	0.0	0.2	0.6	7.6
1994	4.1	7.4	11.5	11.4	2.6	4.8	6.6	25.4	0.0	0.1	0.0	0.0	0.0	0.2	0.6	6.8
1995	4.2	7.3	11.5	11.6	2.5	4.8	6.6	25.4	0.0	0.1	0.0	0.0	0.0	0.2	0.6	6.7
1996	4.6	7.4	11.9	11.8	2.6	4.7	6.5	25.6	0.0	0.1	0.0	0.0	0.0	0.2	0.5	7.3
1997	4.1	7.5	11.6	11.6	2.8	4.6	6.7	25.7	0.0	0.1	0.0	0.0	0.0	0.1	0.6	7.4
1998	4.5	7.4	11.9	11.2	2.6	4.7	6.6	25.1	0.0	0.1	0.0	0.0	0.0	0.1	0.6	7.7
1999	4.1	7.8	11.9	11.3	2.6	4.6	6.8	25.2	0.0	0.1	0.0	0.0	0.0	0.1	0.5	7.9
2000	3.8	7.4	11.3	11.3	3.2	4.5	6.2	25.2	0.0	0.1	0.0	0.0	0.0	0.1	0.5	8.2

Table 30. Selenium Contributed from Major Food Groups to the U.S. Food Supply, Selected Years

Year	Meat, poultry, & fish				Dairy products							
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total	Eggs	Legumes, nuts & soy	Grain products
						Percent						
1909-19	7.0	1.1	3.3	11.5	7.1	2.8	0.5	0.7	11.0	7.7	3.9	63.0
1920-29	7.4	1.2	3.3	11.9	8.3	2.7	0.6	0.9	12.5	8.8	5.2	58.1
1930-39	7.3	1.3	3.1	11.7	8.9	2.7	0.7	1.2	13.6	8.8	7.0	55.1
1940-49	8.6	1.8	3.2	13.6	10.8	2.9	0.9	1.8	16.4	10.2	6.2	49.6
1950-59	8.6	2.7	4.2	15.5	10.9	2.1	1.4	2.4	16.7	11.7	8.9	43.0
1960-69	8.8	4.1	4.5	17.5	9.9	1.6	1.8	2.6	15.9	10.7	9.5	41.3
1970	8.6	4.9	5.0	18.4	8.7	2.6	2.1	2.8	16.2	10.5	9.6	39.5
1971	8.8	4.9	4.8	18.6	8.5	2.8	2.2	2.8	16.2	10.5	9.6	39.2
1972	8.1	5.2	5.4	18.7	8.2	3.0	2.3	2.7	16.2	10.2	11.1	37.8
1973	7.4	5.1	5.7	18.3	8.0	3.0	2.4	3.0	16.5	10.1	9.1	40.0
1974	8.2	5.4	5.7	19.3	7.9	3.3	2.6	2.9	16.7	10.3	7.7	39.7
1975	18.1	4.5	4.9	27.5	6.6	2.6	2.2	2.3	13.8	8.7	9.1	35.5
1976	18.6	4.8	5.0	28.3	6.2	3.3	2.3	2.4	14.3	8.3	8.0	35.6
1977	19.1	5.1	5.1	29.3	6.2	3.6	2.5	2.5	14.9	8.6	5.3	36.5
1978	17.9	5.2	5.5	28.6	5.9	3.6	2.6	2.5	14.6	8.7	7.0	35.9
1979	17.0	5.5	5.4	27.9	5.7	3.7	2.6	2.6	14.6	8.9	6.6	36.7
1980	17.1	5.8	5.2	28.0	5.5	3.9	2.7	2.5	14.6	8.8	5.7	37.5
1981	17.1	6.0	5.2	28.2	5.2	4.0	2.8	2.4	14.3	8.6	5.9	37.5
1982	16.1	5.9	4.9	27.0	4.9	4.0	2.9	2.3	14.1	8.5	7.7	37.4
1983	16.3	5.9	5.2	27.4	4.7	4.0	3.0	2.4	14.1	8.2	8.4	36.6
1984	16.2	6.1	5.4	27.7	4.6	4.0	3.1	2.5	14.2	8.2	7.5	36.8
1985	15.7	6.3	5.5	27.5	4.3	4.1	3.2	2.5	14.1	7.8	7.4	37.6
1986	15.5	6.5	5.6	27.5	4.0	4.4	3.2	2.6	14.2	7.7	7.4	37.6
1987	14.8	7.0	5.6	27.3	3.8	4.4	3.3	2.6	14.1	7.7	6.5	38.9
1988	14.4	7.1	5.5	27.0	3.6	4.4	3.2	2.5	13.7	7.4	6.5	40.0
1989	13.9	7.4	5.8	27.1	3.3	4.7	3.2	2.4	13.5	7.1	7.8	39.1
1990	13.3	7.6	5.3	26.2	3.0	4.8	3.2	2.6	13.6	6.9	7.6	40.2
1991	18.1	7.5	5.0	30.6	2.8	4.7	3.1	2.3	12.9	6.5	6.6	38.0
1992	18.1	7.6	4.8	30.5	2.6	4.6	3.1	2.4	12.7	6.4	8.0	37.1
1993	17.6	7.8	4.8	30.2	2.5	4.5	3.1	2.3	12.4	6.4	7.7	37.9
1994	17.8	7.8	4.8	30.4	2.4	4.5	3.1	2.6	12.6	6.4	7.0	38.2
1995	18.2	7.9	4.8	30.9	2.3	4.6	3.2	2.5	12.6	6.4	6.3	38.5
1996	17.2	7.8	4.6	29.5	2.2	4.4	3.2	2.5	12.3	6.3	7.1	39.2
1997	16.8	7.7	4.5	29.1	2.2	4.3	3.2	2.4	12.1	6.3	7.4	39.6
1998	16.2	7.2	4.2	27.6	2.0	3.9	3.0	2.3	11.1	6.0	6.7	43.4
1999	16.4	7.5	4.3	28.1	2.0	3.9	3.1	2.1	11.0	6.2	6.8	42.8
2000	16.1	7.4	4.6	28.1	1.9	3.8	3.1	2.1	10.9	6.1	6.1	43.8

Table 30. Selenium Contributed from Major Food Groups to the U.S. Food Supply, Selected Years—Continued

Year	Fruits			Vegetables					Fats and Oils						Sugars & sweeteners	Miscellaneous
	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Margarine	Shortening	Lard & beef tallow	Salad, cooking & other edible oils	Total		
								Percent								
1909-19	0.1	0.4	0.5	0.3	0.2	0.2	0.6	1.2	0.1	0.0	0.0	0.0	0.0	0.2	0.6	0.4
1920-29	0.1	0.5	0.6	0.3	0.2	0.2	0.7	1.4	0.1	0.0	0.0	0.0	0.0	0.2	0.7	0.7
1930-39	0.2	0.5	0.6	0.3	0.2	0.2	0.8	1.5	0.2	0.0	0.0	0.0	0.0	0.2	0.8	0.8
1940-49	0.2	0.4	0.6	0.3	0.2	0.2	0.8	1.5	0.1	0.0	0.0	0.0	0.0	0.1	0.7	1.0
1950-59	0.2	0.4	0.6	0.5	0.2	0.2	0.7	1.6	0.1	0.0	0.0	0.0	0.0	0.1	0.7	1.0
1960-69	0.2	0.4	0.6	1.4	0.2	0.2	0.7	2.4	0.1	0.0	0.0	0.0	0.0	0.1	0.8	1.2
1970	0.2	0.4	0.6	1.7	0.2	0.3	0.7	2.8	0.1	0.0	0.0	0.0	0.0	0.1	0.9	1.5
1971	0.2	0.4	0.6	1.7	0.2	0.3	0.6	2.8	0.1	0.0	0.0	0.0	0.0	0.1	0.9	1.5
1972	0.2	0.4	0.6	1.7	0.2	0.3	0.6	2.8	0.0	0.0	0.0	0.0	0.0	0.1	0.9	1.7
1973	0.2	0.4	0.6	1.7	0.2	0.3	0.7	2.9	0.0	0.0	0.0	0.0	0.0	0.1	0.9	1.5
1974	0.2	0.4	0.6	1.8	0.2	0.3	0.7	3.0	0.0	0.0	0.0	0.0	0.0	0.1	0.9	1.6
1975	0.2	0.4	0.5	1.6	0.2	0.2	0.7	2.7	0.0	0.0	0.0	0.0	0.0	0.1	0.8	1.3
1976	0.2	0.4	0.5	1.6	0.2	0.2	0.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.4
1977	0.2	0.4	0.6	1.6	0.2	0.3	0.7	2.6	0.0	0.0	0.0	0.0	0.0	0.1	0.9	1.2
1978	0.2	0.4	0.6	1.6	0.2	0.2	0.7	2.6	0.0	0.0	0.0	0.0	0.0	0.1	0.8	1.2
1979	0.1	0.4	0.6	1.6	0.2	0.3	0.7	2.7	0.0	0.0	0.0	0.0	0.0	0.1	0.9	1.2
1980	0.2	0.4	0.6	1.5	0.2	0.3	0.7	2.7	0.0	0.0	0.0	0.0	0.0	0.1	0.9	1.2
1981	0.1	0.4	0.6	1.6	0.2	0.2	0.7	2.7	0.0	0.0	0.0	0.0	0.0	0.1	0.9	1.3
1982	0.1	0.4	0.6	1.5	0.2	0.2	0.7	2.7	0.0	0.0	0.0	0.0	0.0	0.1	0.9	1.2
1983	0.2	0.4	0.6	1.5	0.2	0.2	0.7	2.7	0.0	0.0	0.0	0.0	0.0	0.1	0.9	1.2
1984	0.1	0.4	0.6	1.6	0.2	0.3	0.7	2.7	0.0	0.0	0.0	0.0	0.0	0.1	0.9	1.3
1985	0.1	0.4	0.5	1.5	0.2	0.2	0.7	2.7	0.0	0.0	0.0	0.0	0.0	0.1	0.9	1.4
1986	0.1	0.4	0.6	1.5	0.2	0.2	0.7	2.6	0.0	0.0	0.0	0.0	0.0	0.1	0.9	1.3
1987	0.1	0.5	0.6	1.5	0.2	0.2	0.7	2.6	0.0	0.0	0.0	0.0	0.0	0.1	0.9	1.4
1988	0.1	0.4	0.6	1.4	0.2	0.2	0.7	2.5	0.0	0.0	0.0	0.0	0.0	0.1	0.9	1.3
1989	0.1	0.4	0.6	1.5	0.2	0.2	0.7	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.4
1990	0.1	0.4	0.5	1.4	0.2	0.2	0.7	2.6	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.5
1991	0.1	0.4	0.5	1.5	0.2	0.2	0.7	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.4
1992	0.1	0.4	0.5	1.4	0.2	0.2	0.7	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.4
1993	0.1	0.4	0.5	1.5	0.2	0.2	0.7	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.3
1994	0.1	0.4	0.5	1.4	0.2	0.2	0.7	2.5	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.3
1995	0.1	0.4	0.5	1.4	0.2	0.2	0.7	2.6	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.3
1996	0.1	0.4	0.5	1.5	0.2	0.2	0.7	2.6	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.4
1997	0.1	0.4	0.5	1.4	0.3	0.2	0.7	2.6	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.4
1998	0.1	0.4	0.5	1.3	0.2	0.2	0.7	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.4
1999	0.1	0.4	0.5	1.2	0.2	0.2	0.8	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.3
2000	0.1	0.4	0.5	1.3	0.2	0.2	0.7	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.2

Table 31. Sodium Contributed from Major Food Groups to the U.S. Food Supply, Selected Years

Year	Meat, poultry, & fish				Dairy products					Eggs	Legumes, nuts & soy	Grain products
	Meat	Poultry	Fish	Total	Whole milk	Lowfat milk	Cheese	Other	Total			
						Percent						
1909-19	27.3	1.2	6.0	34.4	14.1	4.0	3.2	2.3	23.6	5.5	0.3	2.9
1920-29	25.4	1.0	4.4	30.9	14.2	3.2	3.2	3.4	24.1	5.4	0.3	2.4
1930-39	23.1	1.1	3.8	28.0	14.4	2.9	3.6	4.9	25.7	5.0	0.3	1.8
1940-49	24.2	1.3	2.8	28.3	15.7	2.1	4.1	6.2	28.1	5.2	0.3	1.4
1950-59	23.1	1.4	2.9	27.4	14.4	1.7	4.9	6.7	27.8	5.4	0.3	0.9
1960-69	22.2	1.9	2.5	26.6	11.9	2.4	5.8	6.4	26.6	4.4	0.2	0.7
1970	20.0	2.1	2.3	24.5	9.8	3.5	6.2	6.4	25.9	4.0	0.2	0.5
1971	20.6	2.1	2.3	25.0	9.4	3.6	6.4	6.4	25.8	3.9	0.2	0.5
1972	19.0	2.2	2.5	23.8	9.2	3.8	7.1	6.3	26.5	3.9	0.2	0.5
1973	17.3	2.2	2.5	22.0	9.0	3.9	7.5	6.8	27.2	3.8	0.3	0.5
1974	18.2	2.2	2.4	22.8	8.5	4.0	7.9	6.4	26.7	3.7	0.2	0.6
1975	16.0	2.2	2.3	20.5	8.4	3.7	7.9	6.3	26.3	3.7	0.3	0.6
1976	16.0	2.2	2.3	20.6	7.8	4.4	8.2	6.3	26.7	3.5	0.2	0.6
1977	16.2	2.3	2.4	20.9	7.5	4.6	8.6	6.3	27.1	3.5	0.2	0.6
1978	15.7	2.4	2.5	20.6	7.3	4.6	9.0	6.4	27.3	3.5	0.2	0.6
1979	16.4	2.5	2.4	21.3	6.9	4.6	9.1	6.6	27.3	3.6	0.2	0.6
1980	17.2	2.6	2.3	22.2	6.7	4.9	9.5	6.7	27.9	3.6	0.2	0.6
1981	16.8	2.7	2.5	22.0	6.5	5.0	10.1	6.5	28.1	3.6	0.2	0.7
1982	15.3	2.7	2.4	20.4	6.2	5.1	11.1	6.6	29.1	3.6	0.3	0.7
1983	15.7	2.7	2.5	21.0	6.0	5.2	11.3	6.8	29.3	3.5	0.3	0.7
1984	15.1	2.8	2.6	20.4	5.7	5.1	11.6	7.0	29.4	3.4	0.2	0.7
1985	14.7	2.8	2.6	20.2	5.5	5.3	12.0	7.2	30.0	3.3	0.3	0.7
1986	13.9	2.9	2.8	19.6	5.2	5.6	12.1	7.5	30.4	3.3	0.3	0.7
1987	13.5	3.2	2.7	19.4	5.0	5.7	12.9	7.4	31.0	3.3	0.2	0.8
1988	14.2	3.3	2.7	20.1	4.8	5.9	12.8	7.3	30.9	3.3	0.3	0.8
1989	13.6	3.4	2.7	19.7	4.4	6.4	12.7	6.9	30.4	3.1	0.3	0.8
1990	12.5	3.4	2.7	18.7	4.0	6.5	12.8	7.5	30.8	3.0	0.3	0.8
1991	12.2	3.6	2.8	18.5	3.9	6.6	13.1	7.2	30.8	3.0	0.3	0.8
1992	12.3	3.7	2.6	18.6	3.7	6.5	13.4	7.4	30.9	3.0	0.3	0.8
1993	12.0	3.8	2.6	18.4	3.5	6.5	13.5	7.4	30.9	3.0	0.3	0.8
1994	12.0	3.8	2.6	18.4	3.5	6.5	13.7	7.9	31.6	3.0	0.3	0.8
1995	12.2	3.9	2.7	18.7	3.4	6.6	14.1	7.4	31.5	3.0	0.3	0.8
1996	11.8	4.0	2.6	18.4	3.4	6.7	14.4	7.6	32.1	3.1	0.3	0.9
1997	11.6	4.0	2.6	18.1	3.3	6.6	14.8	7.5	32.2	3.1	0.3	0.8
1998	12.4	4.0	2.6	19.0	3.3	6.6	14.9	7.7	32.5	3.2	0.3	0.9
1999	12.5	4.2	2.6	19.3	3.3	6.5	15.4	7.1	32.2	3.3	0.3	0.9
2000	12.3	4.2	2.8	19.3	3.2	6.4	15.8	7.2	32.6	3.3	0.3	0.9

Table 31. Sodium Contributed from Major Food Groups to the U.S. Food Supply, Selected Years—Continued

	Fruits			Vegetables					Fats and Oils							
Year	Citrus	Non-citrus	Total	White potatoes	Dark green/ deep yellow	Tomatoes	Other	Total	Butter	Marg-arine	Short-ening	Lard & beef tallow	Salad, cooking & other edible oils	Total	Sugars & sweeteners	Miscel-laneous
								Percent								
1909-19	0.0	0.8	0.8	1.1	0.7	3.6	5.0	10.4	18.7	1.4	0.0	0.0	0.0	20.0	1.7	0.3
1920-29	0.0	0.9	0.9	0.9	1.3	3.3	9.0	14.4	17.7	1.9	0.0	0.0	0.0	19.6	1.9	0.3
1930-39	0.0	1.0	1.0	0.8	1.5	3.3	10.2	15.7	17.8	2.6	0.0	0.0	0.0	20.3	1.7	0.4
1940-49	0.0	1.1	1.1	0.6	1.5	4.4	11.4	18.0	11.2	3.9	0.0	0.0	0.0	15.2	2.1	0.4
1950-59	0.0	1.3	1.3	1.2	1.1	5.4	12.0	19.7	7.6	7.7	0.0	0.0	0.0	15.3	1.6	0.4
1960-69	0.0	1.3	1.3	2.5	1.0	6.4	13.4	23.3	5.3	8.9	0.0	0.0	0.0	14.2	2.3	0.3
1970	0.0	1.4	1.4	2.8	1.0	8.2	15.3	27.3	4.0	9.1	0.0	0.0	0.0	13.2	2.7	0.3
1971	0.1	1.4	1.4	2.7	0.9	8.8	15.0	27.6	3.8	8.7	0.0	0.0	0.0	12.5	2.7	0.3
1972	0.1	1.2	1.2	2.8	1.1	8.9	15.0	27.6	3.7	9.3	0.0	0.0	0.0	13.0	3.0	0.3
1973	0.1	1.3	1.4	2.8	1.1	8.2	15.8	27.9	3.6	9.8	0.0	0.0	0.0	13.4	3.3	0.3
1974	0.1	1.2	1.2	2.8	1.0	9.1	15.4	28.3	3.4	9.3	0.0	0.0	0.0	12.7	3.5	0.3
1975	0.1	1.4	1.5	2.8	1.0	9.8	16.1	29.7	3.7	9.8	0.0	0.0	0.0	13.5	3.6	0.3
1976	0.1	1.4	1.5	2.8	1.0	10.2	15.7	29.7	3.2	10.3	0.0	0.0	0.0	13.5	3.4	0.3
1977	0.1	1.6	1.6	2.9	0.9	9.9	15.6	29.3	3.2	9.9	0.0	0.0	0.0	13.1	3.4	0.3
1978	0.1	2.4	2.5	2.9	0.9	8.8	15.8	28.4	3.3	9.9	0.0	0.0	0.0	13.2	3.4	0.3
1979	0.1	1.3	1.3	2.8	1.0	10.2	15.1	29.0	3.4	9.7	0.0	0.0	0.0	13.0	3.2	0.3
1980	0.1	1.8	1.9	2.8	0.9	8.6	14.5	26.8	3.4	9.9	0.0	0.0	0.0	13.4	3.1	0.3
1981	0.1	1.3	1.3	2.9	0.9	9.1	14.5	27.4	3.3	10.0	0.0	0.0	0.0	13.3	3.1	0.3
1982	0.1	2.0	2.0	2.9	0.9	9.6	13.7	27.0	3.4	10.1	0.0	0.0	0.0	13.5	3.1	0.3
1983	0.1	1.5	1.6	3.0	0.8	9.7	13.6	27.1	3.8	9.4	0.0	0.0	0.0	13.2	3.2	0.3
1984	0.1	1.7	1.7	3.0	0.9	10.8	13.0	27.7	3.7	9.2	0.0	0.0	0.0	13.0	3.2	0.3
1985	0.1	1.8	1.9	2.9	0.8	9.7	13.7	27.2	3.6	9.4	0.0	0.0	0.0	13.0	3.2	0.3
1986	0.1	1.9	2.0	3.0	0.8	9.9	13.1	26.8	3.5	10.0	0.0	0.0	0.0	13.5	3.2	0.3
1987	0.1	1.8	1.8	3.0	0.8	10.3	13.1	27.1	3.5	9.3	0.0	0.0	0.0	12.8	3.2	0.3
1988	0.1	1.7	1.7	2.9	0.8	9.9	12.9	26.6	3.4	9.3	0.0	0.0	0.0	12.7	3.4	0.3
1989	0.1	1.9	2.0	3.0	0.8	11.2	12.6	27.6	3.3	9.2	0.0	0.0	0.0	12.5	3.4	0.3
1990	0.1	1.8	1.8	2.8	0.8	11.9	12.4	27.9	3.3	9.6	0.0	0.0	0.0	12.9	3.5	0.4
1991	0.1	1.2	1.3	3.0	0.8	12.2	12.6	28.7	3.3	9.3	0.0	0.0	0.0	12.6	3.6	0.4
1992	0.1	2.1	2.2	2.9	0.9	11.5	11.9	27.2	3.2	9.6	0.0	0.0	0.0	12.8	3.7	0.4
1993	0.1	1.8	1.9	3.1	0.9	11.9	11.5	27.3	3.5	9.8	0.0	0.0	0.0	13.2	3.9	0.3
1994	0.1	1.4	1.4	3.0	1.0	12.0	12.0	28.0	3.6	8.6	0.0	0.0	0.0	12.2	3.9	0.3
1995	0.1	1.3	1.4	3.0	1.0	11.9	12.4	28.3	3.4	8.2	0.0	0.0	0.0	11.6	4.0	0.4
1996	0.1	2.2	2.2	3.2	1.1	11.8	11.2	27.3	3.3	8.3	0.0	0.0	0.0	11.5	3.8	0.4
1997	0.1	1.7	1.7	3.1	1.1	11.7	12.6	28.5	3.1	7.7	0.0	0.0	0.0	10.9	3.9	0.4
1998	0.1	1.6	1.6	2.9	1.1	12.0	11.0	27.1	3.4	7.6	0.0	0.0	0.0	11.0	4.0	0.4
1999	0.1	2.0	2.1	3.0	1.1	11.5	11.2	26.8	3.6	7.3	0.0	0.0	0.0	10.9	3.8	0.4
2000	0.1	1.3	1.4	3.0	1.0	11.2	11.8	27.0	3.5	7.6	0.0	0.0	0.0	11.1	3.7	0.4

Table 32. Pyramid servings estimates and trends in the U.S. food supply, selected years[1,2]

Pyramid group/subgroup	1970	1980	1990	2000	Percent change from 1970 to 2000
Grains	**6.8**	**7.0**	**8.5**	**9.3**	**37**
Flours	5.6	5.7	6.8	7.0	25
Breakfast cereals	.3	.5	.6	.5	70
Other (corn, rice, barley)	.9	.9	1.1	1.8	100
Vegetables	**3.3**	**3.4**	**3.5**	**3.7**	**12**
Deep yellow/dark green	.3	.3	.3	.5	67
Potatoes	1.1	1.1	1.1	1.3	18
Tomatoes	.4	.4	.4	.4	--
Other	1.5	1.6	1.6	1.6	7
Fruits	**1.1**	**1.2**	**1.3**	**1.3**	**18**
Citrus fruits & juices	.5	.6	.5	.6	20
Non-citrus fruits & juices	.6	.7	.8	.7	17
Milk	**1.8**	**1.7**	**1.7**	**1.7**	**-5**
Milk, yogurt, & frozen dairy	1.6	1.4	1.3	1.1	-31
Cheese	.2	.3	.5	.5	150
Meat and beans	**3.2**	**3.3**	**3.3**	**3.6**	**13**
Red meat	1.5	1.4	1.3	1.3	-15
Poultry	.5	.6	.8	.9	80
Fish	.2	.2	.2	.2	--
Eggs	.7	.6	.5	.6	-14
Legumes, nuts, & soy	.3	.5	.5	.6	100

[1]Numbers may not add up due to rounding.
[2]These estimates provide number of Pyramid servings based on availability of a particular food commodity for that year and do not reflect a Pyramid meal pattern.
[3]Milk servings are based on actual amount of milk, yogurt, frozen dairy product, or cheese (i.e, 1/2 cup or 1 cup).

Table 33. How many servings do you need each day?

	Children, ages 2 to 6 yrs, women, some older adults	Older children, teen girls, active women	Teen boys, active men
Calorie level	1,600	2,200	2,800
Food group			
Bread, cereal, rice, & pasta	6	9	11
Vegetable	3	4	5
Fruit	2	3	4
Milk, yogurt, & cheese	2 or 3[1]	2 or 3[1]	2 or 3[1]
Meat, poultry, fish, dry beans, eggs, & nuts	2 (total of 5 ounces)	2 (total of 6 ounces)	3 (total of 7 ounces)

Source: U.S. Department of Agriculture and U.S. Department of Health and Human Services (1996); the number of servings depends on age.

What counts as a Pyramid serving?

Bread, cereal, rice, & pasta group (grains group)—whole grain and refined

- 1 slice of bread
- About 1 cup of ready-to-eat cereal
- 1/2 cup of cooked cereal, rice, or pasta

Vegetable group

- 1 cup of raw leafy vegetables
- 1/2 cup of other vegetables—cooked or raw
- 3/4 cup of vegetable juice

Fruit group

- 1 medium apple, banana, orange, or pear
- 1/2 cup of chopped, cooked, or canned fruit
- 3/4 cup of fruit juice

Milk, yogurt, & cheese group (milk group)

- 1 cup of milk or yogurt[2]
- 1-1/2 ounces of natural cheese (such as Cheddar)
- 2 ounces of processed cheese[2] (such as American)

Meat, poultry, fish, dry beans, eggs, & nuts group (meat and beans group)

- 2-3 ounces of cooked lean meat, poultry, or fish
- 1/2 cup of cooked dry beans[3] or 1/2 cup of tofu counts as 1 ounce of lean meat
- 1-1/2 ounce soy burger or 1 egg counts as 1 ounce of lean meat
- 2 tablespoons of peanut butter of 1/3 cup of nuts counts as 1 ounce of meat

[1]This includes lactose-free and lactose-reduced milk products. One cup of soy-based beverage with added calcium is an option for those who prefer a non-dairy source of calcium.
[2]Choose fat-free or reduced-fat dairy products most often.
[3]Dry beans, peas, and lentils can be counted as servings in either the meat and beans group or the vegetable group. As a vegetable, 1/2 cup of cooked dry beans counts as 1 serving. As a meat substitute, 1 cup of cooked dry beans counts as 1 serving (2 ounces of meat).

Source: U.S. Department of Agriculture and U.S. Department of Health and Human Services (2000).

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APPENDIX A

Food Supply Fortification

The estimation of the nutritive value of the U.S. food supply requires information on the extent of enrichment and fortification of foods. CNPP routinely consults with members of the food industry, trade associations, fortification policy/food regulatory staff at the Food and Drug Administration (FDA), academic experts in food science and nutraceuticals, and chemical suppliers of added nutrient formulations. This information is used to establish or verify fortification levels of several food supply commodities, such as white flour, breakfast cereals, rice, pasta, corn products, and margarine. For other food commodities, such as fruit drinks and juices, individual dairy products, and meal replacements, adequate information does not exist to estimate added nutrients or fortification.

The U.S. food supply series uses two types of fortification files: historical files and dynamic or active files. The development of these files accounts for nutrient fortification over the series without risk of double-counting because historical fortification data are distinctly separated from current fortification. Historical files contain estimates of added nutrients per year and nutrients for a specific commodity or commodity category. These estimates were derived from a special survey designed by the U.S. Department of Agriculture and included as a component to the 1970 Population Census, conducted by the Bureau of Census. Absolute amounts of nutrients added by manufacturers and distributors of vitamins and minerals were directly entered into the food supply fortification file for a specific commodity. In the historical files, no link is made to the commodity's quantity data. Some food commodities have only historical files because adequate information does not exist to estimate added nutrients as fortifications. These food commodity categories are dairy products, fruit and fruit juices, and miscellaneous foods. Otherwise, historical fortification files generally contain added nutrient data from the date of initial enrichment (or fortification) of a commodity to 1969 (for rice, corn meal/grits, and margarine) and to 1973 (for ready-to-eat and cooked breakfast cereals, white flour, and semolina). In all cases, historical fortification data are included in the food supply nutrient estimates for a particular year.

Dynamic or active fortification files link commodity quantity data directly to nutrient data for a specific year based on enrichment/fortification policy for that year. Food commodities with active fortification files are rice, corn meal/grits, and margarine from 1970, and for ready-to-eat and cooked breakfast cereals, white flour, and semolina from 1974.

Criteria Used to Estimate Level of Fortification/ Enrichment by Food Supply Commodity

Wheat Flour Products

The historical files for flour products contain estimates of added thiamin, riboflavin, niacin, and iron by year for white flour for the years 1941-73. Beginning in 1974, dynamic or active files are available for flour products. These data provide the nutrient total per capita per day, as well as the contributions provided by the unenriched/unfortified commodity and the enriched/fortified commodity. Estimates from 1998 and later years reflect folate fortification policy for flour products.

White Flour in the food supply is reflected as a single commodity item. Beginning in 1974,[1] 90 percent of the white flour is estimated as enriched; 10 percent is estimated as unenriched. These percentages are applied to the total quantity of white flour for a particular year.

Semolina in the food supply is reflected as a single commodity item. Beginning in 1974, 95 percent of the semolina flour is estimated as enriched; 5 percent is estimated as unenriched, based on information received from the National Pasta Association.

Corn Products

Results from a survey of enrichment of corn products, done in cooperation with the North American Millers' Association, were used to determine the level of enrichment of corn meal and grits (table A1). The historical files for corn products contain estimates of added thiamin, riboflavin, niacin, and iron by year for corn grits for the years 1943-69. Beginning in 1970, dynamic or active files are available for corn products. These data provide the nutrient total per capita per day, as well as the contributions provided by the unenriched/ unfortified commodity and the enriched/fortified commodity. Estimates from 1998 and later years reflect folate fortification policy for corn products.

Corn Grits in the food supply are reflected in a nutrient composite: white corn grits (50 percent) and yellow corn grits (50 percent). Ninety-five percent of the white corn grits are considered enriched; the yellow corn grits are not considered enriched (table A1). Since enriched white corn grits make up 50 percent of the nutrient composite, a factor of 0.475 is used to account for the percentage of total corn grits enriched. A value of 1.0 minus the factor used to account for enrichment (0.475) or 0.525 is the factor used to account for the unenriched corn grits.

Corn Meal in the food supply is reflected in a nutrient composite: yellow, whole-grain corn meal (25 percent); white, whole-grain corn meal (25 percent); and yellow, degermed corn meal (50 percent). Sixty-nine percent of the yellow, degermed corn meal is considered

[1]The following percentages were used prior to 1974: 1954-62, 60 percent; 1962-69, 65 percent; 1970, 70 percent; 1971, 75 percent; 1972, 80 percent; and 1973, 85 percent.

Table A1. Summary results of survey on enrichment of corn meal, corn grits, and corn flour by the North American Millers' Association[1]

Company number	Meal, white	Grits, white	Flour, white	Meal, yellow	Grits, yellow	Flour, yellow
			Percent			
1	100	100	100	100	NA	NA
2	100	NA	NA	NA	NA	NA
3	100	80	80	100	NA	NA
4	64	NA	NA	14	NA	NA
5	100	100	NA	50	0	70
6	100	NA	100	100	NA	100
7	NA	NA	NA	50	10	50
8	95	NA	NA	95	NA	NA
9	<2	21	0	42	0	<2
10	100	100	NA	NA	NA	NA
11	NO	NO	NO	NO	NO	NO
12	96	100	NA	49	NA	NA
13	100	NA	NA	100	NA	NA
14	100	NA	NA	100	NA	NA
15	100	NA	100	100	NA	100
16	NA	NA	NA	5	1	25
17	100	NA	NA	100	NA	NA
Total[2]	1255	480	380	963	NA	345
Approximate percent enriched	89.9	96.0	76.0	68.8	NA	57.5

[1]Basically the same percentage enrichment since 1970; except where uncertain prior to 1985.
Source of enrichment is pre-mix added at about 0.25 ounces per pound.
Enrichment (American Ingredients Company's Type 4FN-Richment-A):
Niacin 14.0 mg/lb; thiamin 1.9 mg/lb; riboflavin 1.2 mg/lb; iron 12.0 mg/lb; and folic acid 0.75 mg/lb.
Enrichment (other):
Niacin 13.7 mg/lb; thiamin 1.9 mg/lb; riboflavin 1.15 mg/lb; iron 12.0 mg/lb; and folic acid 0.7 mg/lb.
Niacin 20.0 mg/lb; thiamin 2.5 mg/lb; riboflavin 1.5 mg; iron 20 mg/lb; and folic acid 0.8 mg/lb.

[2]Company 9 was not included due to low percentage enriched.

to be enriched. Since enriched, degermed corn meal makes up 50 percent of the nutrient composite, a factor of 0.345 is used to account for the percentage of enriched corn meal. A value of 1.0 minus the factor used to account for enrichment (0.345) or 0.655 is the factor used to account for the unenriched corn meal.

Rice Products

The historical files for rice products contain estimates of added thiamin, niacin, and iron by year for enriched rice, 1943-70 and of riboflavin for 1943-57.[2] Beginning in 1970, dynamic or active files are available for rice products. These data provide the nutrient total per capita

[2]The riboflavin enrichment policy was stayed in 1958; in part, because of the yellow coloring that added riboflavin gave to the rice.

per day, as well as the contributions provided by the unenriched/unfortified commodity and the enriched/fortified commodity. Estimates beginning with 1998 reflect folate fortification policy for rice.

White rice in the food supply is reflected as a single commodity item. Beginning in 1970, 95 percent of the rice is estimated as enriched, and 5 percent is estimated as unenriched based on information from USA Rice.

Breakfast Cereals

The historical files for ready-to-eat (RTE) cereals contain estimates of added thiamin, riboflavin, niacin, and iron from 1939-73 and vitamin B_6 and vitamin B_{12} from 1966-73. There are no historical files for cooked cereals. Beginning in 1974, dynamic or active files are available for both RTE and cooked cereals. These data provide the nutrient total per capita per day, as well as the contributions provided by the unenriched/unfortified commodity and the enriched/fortified commodity.

Ready-to-eat cereals in the food supply are reflected as a nutrient composite of corn, wheat, rice, oats, and mixed-grain cereals.

Cooked cereals in the food supply are reflected as a nutrient composite of farina and rolled oats; quick-cooking cereals like quick oats; instant cereals including *CREAM OF WHEAT AND CREAM OF RICE;* instant oatmeal; other/mixed-grain cereals like *MAYPO*, an oat- and mixed-grain cereal; and *MALT-O-MEAL*, a wheat and barley mix (L. Lemar, personal communication, 2000). For each type of cereal, 85 percent of the quantity is estimated to be fortified for the years 1974-78, and 92 percent is estimated for the years 1979-2000.

Estimates of Fortification/Enrichment by Food Supply Commodity (Grains)

Estimates of added nutrients are based on standards of identity for cereal flours and related products as specified in the Food and Drug Administration's Code of Federal Regulations (Y. Park, personal communication, 1999; USDA, 1974, 1999) unless otherwise noted. The inclusion of optional nutrients, such as calcium and vitamin D, were not reflected in these estimates. Nutrient data used to determine the nutrient contribution from fortification or enrichment are based on information from USDA's Nutrient Data Laboratory, Standard Reference 13 (USDA, 1999) and updated with data from Standard Reference 16 (S. Gebhardt, personal communication, 2003; USDA, 2003). Tables A2 through A4 show the Federal enrichment standards, the pre-enrichment nutrient levels, the levels of nutrients added through enrichment (or fortification), and the total nutrient levels (pre-enrichment plus enrichment levels) for each grain-based commodity discussed. Values may not add to the standard because of rounding. In some cases, the enriched product may not meet the Federal enrichment standards for one or more of the nutrients presented.

Table A2. Wheat Flour Products

White Flour

Federal enrichment standard by year per pound of nutrient for white flour

Nutrient	1942	1943	1973	1978	1983	1998-present
Thiamin (mg)	1.66 - 2.5	2.0 - 2.5	2.9	2.9	2.9	2.9
Riboflavin (mg)	1.2 - 1.8	1.2 - 1.5	1.8	1.8	1.8	1.8
Niacin (mg)	6 - 24	16 - 20	24	24	24	24
Folic acid (mcg)						700
Iron (mg)	6 - 24	13 - 16.5	40 (standard stayed)	13 - 16.5	20	20

Levels of nutrients, pre-enrichment per 100 grams (pound) of white flour

Nutrient	1974—present (per pound)
Iron (mg)	1.2 (5.5)
Thiamin (mg)	0.12 (0.54)
Riboflavin (mg)	0.04 (0.18)
Niacin (mg)	1.3 (5.9)
Folate (mcg)	26.0 (118)

Level of nutrients added through enrichment per 100 grams (pound)[1] of white flour

Nutrient	1974-1982 (per pound)	1983-1997 (per pound)	1998-present (per pound)
Iron (mg)	1.7 (7.7)	3.5 (15.8)	3.5 (15.8)
Thiamin (mg)	0.7 (3.0)	0.7 (3.0)	0.7 (3.0)
Riboflavin (mg)	0.5 (2.0)	0.5 (2.05)	0.5 (2.05)
Niacin (mg)	4.7 (21.0)	4.7 (21.0)	4.7 (21.0)
Folate (mcg)	NA2	NA	128.0 (581.0)

[1]Prior to 1974, the following levels of nutrients per pound were added to flour: 1942-48—iron, 2.4 mg; thiamin, 1.4 mg; riboflavin, 0.99 mg; and niacin, 1.9 mg; 1949-73—iron, 9.4 mg; thiamin, 1.7 mg; riboflavin, 0.99 mg; and niacin, 12.0 mg (*2*).
[2]Not applicable.

Total level of nutrients (pre-enrichment and enrichment) per 100 grams (pound) of white flour

Nutrient	1974-1982 (per pound)	1983-1997 (per pound)	1998-present (per pound)
Iron (mg)	2.9 (13.0)	4.6 (21.1)	4.6 (21.1)
Thiamin (mg)	0.8 (3.6)	0.8 (3.6)	0.8 (3.6)
Riboflavin (mg)	0.5 (2.2)	0.5 (2.2)	0.5 (2.2)
Niacin (mg)	5.9 (26.8)	5.9 (26.8)	5.9 (26.8)
Folate (mcg)	26.0 (118)	26.0 (118)	154 (700)

Table A2. Wheat Flour Products (Cont'd)

Semolina

Levels of nutrients, pre-enrichment, per 100 grams (pound) of semolina*

Nutrient	1974—present (per pound)
Iron (mg)	1.2 (5.6)
Thiamin (mg)	0.3 (1.3)
Riboflavin (mg)	0.08 (0.4)
Niacin (mg)	3.3 (15.0)
Folate (mcg)	72.0

*The standard of identity for semolina is the same as that for whole wheat flour.

Level of nutrients added through enrichment per 100 grams (pound) of semolina

Nutrient	1974-82 (per pound)	1983-97 (per pound)	1998-present (per pound)
Iron (mg)	1.6 (7.4)	3.1 (14.2)	3.1 (14.2)
Thiamin (mg)	0.5 (2.4)	0.5 (2.4)	0.5 (2.4)
Riboflavin (mg)	0.5 (2.2)	0.5 (2.2)	0.5 (2.2)
Niacin (mg)	2.7 (12.2)	0.7 (12.2)	0.7 (12.2)
Folate (mcg)	NA	NA	82.0 (372.3)

Total level of nutrients added (pre-enrichment and enrichment) per 100 grams (pound) of semolina

Nutrient	1974-82 (per pound)	1983-97 (per pound)	1998-present (per pound)
Iron (mg)	1.6 (7.4)	3.1 (14.2)	3.1 (14.2)
Iron (mg)	2.9 (13.0)	4.4 (20.0)	4.4 (20.0)
Thiamin (mg)	0.8 (3.7)	0.8 (3.7)	0.8 (3.7)
Riboflavin (mg)	0.6 (2.6)	0.6 (2.6)	0.6 (2.6)
Niacin (mg)	6.0 (27.2)	6.0 (27.2)	6.0 (27.2)
Folate (mcg)	NA	NA	154 (700)

Table A3. Corn Products

Corn Grits

Federal enrichment standard by year per pound of nutrient for corn grits* and corn meal

Nutrient	1947	1998
Thiamin (mg)	2.0 - 3.0	4.5
Riboflavin (mg)	1.2 - 1.8	2.0 - 3.0
Niacin (mg)	16 - 24	16 - 24
Folic acid (mcg)	NA	700 - 1000
Iron (mg)	13 - 26	13 - 26

*Standard of identity for corn grits was deleted from Code of Federal Regulations in 1996.

Levels of nutrients, pre-enrichment, per 100 grams (pound) of corn grits (white, dry)

Nutrient	1970—present (per pound)
Iron (mg)	1.0 (4.5)
Thiamin (mg)	0.13 (0.6)
Riboflavin (mg)	0.04 (0.18)
Niacin (mg)	1.2 (5.4)
Folate (mcg)	5 (22.7)

Level of nutrients added through enrichment per 100 grams (pound) of corn grits (white, dry)

Nutrient	1970-97 (per pound)	1998 (per pound)
Iron (mg)	2.9 (13.2)	2.9 (13.2)
Thiamin (mg)	0.5 (2.3)	0.5 (2.3)
Riboflavin (mg)	0.3 (1.5)	0.3 (1.5)
Niacin (mg)	3.8 (17.1)	3.8 (17.1)

Total level of nutrients (pre-enrichment and enrichment) per 100 grams (pound) of corn grits (white, dry)

Nutrient	1970-97 (per pound)	1998 (per pound)
Iron (mg)	3.9 (17.8)	3.9 (17.8)
Thiamin (mg)	0.6 (2.9)	0.6 (2.9)
Riboflavin (mg)	0.4 (1.7)	0.4 (1.7)
Niacin (mg)	5.0 (22.5)	5.0 (22.5)
Folate (mcg)	5.0 (22.7)	187.0 (849.0)

Table A3. Corn Products (Cont'd)

Corn Meal

Levels of nutrients, pre-enrichment, per 100 grams (pound) of cornmeal (yellow)

Nutrient	1970—present (per pound)
Iron (mg)	1.1 (5.0)
Thiamin (mg)	0.1 (0.6)
Riboflavin (mg)	0.05 (0.23)
Niacin (mg)	1.0 (4.5)
Folate (mcg)	48 (218.0)

Level of nutrients added through enrichment per 100 grams (pound) of cornmeal (yellow)

Nutrient	1970-97 (per pound)	1998 (per pound)
Iron (mg)	3.0 (13.8)	3.0 (13.8)
Thiamin (mg)	0.6 (2.6)	0.6 (2.6)
Riboflavin (mg)	0.4 (1.6)	0.4 (1.6)
Niacin (mg)	4.0 (18.3)	4.0 (18.3)
Folate (mcg)	NA	139.0 (631.0)

Total level of nutrients (pre-enrichment and enrichment) per 100 grams (pound) of cornmeal (yellow)

Nutrient	1970-97 (per pound)	1998 (per pound)
Iron (mg)	4.1 (18.9)	4.1 (18.9)
Thiamin (mg)	0.7 (3.2)	0.7 (3.2)
Riboflavin (mg)	0.4 (1.8)	0.4 (1.8)
Niacin (mg)	5.0 (22.9)	5.0 (22.9)
Folate (mcg)	48.0 (218.0)	187.0 (849.0)

Table A4. Rice

Federal enrichment standard by year per pound of nutrient for rice

Nutrient	1957	1998
Thiamin (mg)	2.0 - 4.0	2.0 - 4.0
Riboflavin (mg)	1.2 - 2.4	1.2 - 2.4 (stayed in 1958)
Niacin (mg)	16 - 32	16 - 32
Folic acid (mcg)		700 - 1400
Iron (mg)	13 - 26	13 - 26

Levels of nutrients, pre-enrichment, per 100 grams (pound) of rice

Nutrient	1970—present (per pound)
Iron (mg)	0.8 (3.6)
Thiamin (mg)	0.07 (.32)
Niacin (mg)	1.6 (7.3)
Folate (mcg)	8.0 (36.3)

Level of nutrients added through enrichment per 100 grams (pound) of rice

Nutrient	1970-97 (per pound)	1998 (per pound)
Iron (mg)	3.5 (16.0)	3.5 (16.0)
Thiamin (mg)	0.5 (2.3)	0.5 (2.3)
Niacin (mg)	2.6 (11.8)	2.6 (11.8)
Folate (mcg)	NA	223.0 (1012.0)

Total level of nutrients (pre-enrichment and enrichment) per 100 grams (pound) of rice

Nutrient	1970-97 (per pound)	1998 (per pound)
Iron (mg)	4.3 (19.6)	4.3 (19.6)
Thiamin (mg)	0.6 (2.6)	0.6 (2.6)
Niacin (mg)	4.2 (19.1)	4.2 (19.1)
Folate (mcg)	8.0 (36.3)	231.0 (1049)

Federal Enrichment/Fortification Standards for Breakfast Cereals

Ready-to-Eat Cereals

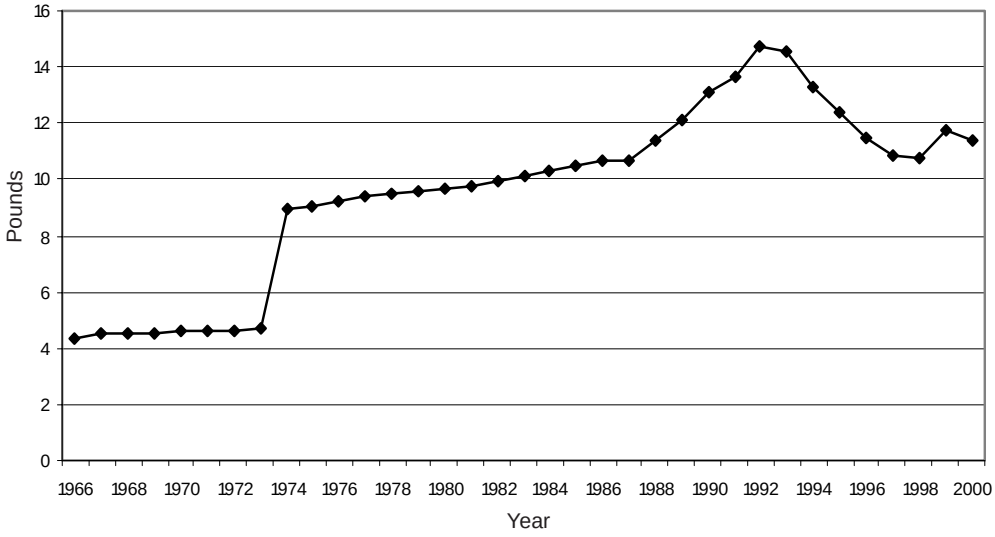
Consumption

Ready-to-eat (RTE) cereals are an important part of the American diet. They are plentiful, readily available, affordable, made from a variety of grains, and easily consumed as meals or snacks. They are a popular food item for many Americans, especially children. On a given day, almost one-half of America's children 9 years old and under eat some kind of RTE cereal (USDA, 1999). RTE cereal consumption almost tripled from 4 pounds per person in 1966 to 11 pounds per person in 2000 (fig. 1) (Putnam, 1989; Putnam & Allshouse, 1999; A. Manchester, personal communication, 2001). Because of their popularity and the nature of cereal grains, RTE cereals serve as an excellent vehicle for nutrient foritfication. As such, RTE cereals make important contributions to the total amount of many vitamins and minerals in the U.S. food supply—especially the B vitamins (thiamin, riboflavin, niacin, vitamin B6, and folate), vitamins A an C, iron, and zinc.

Fortification

RTE cereals have been fortified since the 1940s, but per capita information on consumption of total RTE cereals has been available only since 1966 from USDA's Economic Research Service. During the past 30 years, the percentage of RTE cereal fortified in the food supply has increased from 16 percent to 92 percent (Bauernfeind & DeRitter, 1992; Hayden, 1980). A consensus of the American Medical Association, the Food and Nutrition Board of the National Academy of Sciences (NAS), and the expert panel on Food Safety and Nutrition of the Institute of Food Technologists determined that a serving of breakfast cereal should provide 25 percent of the U.S. Recommended Daily Allowances (U.S. RDA) of vitamins and minerals common to cereals—most of the same nutrients recommended by NAS for fortification. Although fortification varies from product to product, the cereal

Figure A1. Ready-to-eat cereal consumption, 1966-2000



manufacturers' general approach has been to fortify cereals with 25 percent per serving of the U.S. RDA. Based on this information, as well as the Food and Drug Administration's Code of Federal Regulations, the food supply RTE cereal fortification data were adjusted to reflect a fortification level of 25 percent for thiamin, niacin, riboflavin, vitamins B_6, C, and A, folate, iron, and zinc (table A5).

Serving size regulation was a factor in determining the amount of a nutrient available from these cereals. From 1973 through 1992, prior to the implementation of the Nutrition Labeling and Education Act (NLEA) of 1990, a 1-ounce (28.35 grams) serving was the portion size most manufacturers used and listed on nutrition labels of RTE cereals. With the implementation of the NLEA for breakfast cereals in 1993, serving sizes became based on cereal density[3] for consistency and because, generally, less dense cereals (e.g., puffed rice) are consumed in amounts greater than 1 cup and more dense cereals (e.g., All Bran) are consumed in quantities less than 1 cup (L. Lemar, personal communication, 2001; DHHS, 1993). Based on this serving size information, an average serving size of 30 grams has been used to estimate nutrient contributions from all fortified cereals in the U.S. food supply from 1993 through 2000.

Enriched RTE breakfast cereals make important contributions to the total amount of thiamin, riboflavin, niacin, and iron in the U.S. food supply. Also added nutrients (folate; vitamins B_6, A, and C; and zinc) to RTE cereal through fortification in the past 25 years of the series account for an appreciable amount of the total of each of these nutrients in the food supply. In 1970, thiamin, riboflavin, niacin, vitamin B_6, iron, folate, and zinc each contributed less than 1 percent of the total amount in the food supply. In 2000, their contributions ranged from 7 to 10 percent of the total amount of these nutrients available in the food supply. Also, vitamins A and C from RTE cereal each contributed 4 percent to the total food supply.

Table A5. Fortification recommendations for ready-to-eat cereals

Nutrient	U.S. RDA*	1974-92 amount per pound	1974-2000 amount per pound
Thiamin (mg)	1.5	6.0	5.7
Niacin (mg)	20	80	76
Riboflavin (mg)	1.7	6.8	6.4
Vitamin A (RE)	1000 (5000 IU)	4000	3780
Vitamin C (mg)	60	240	227
Iron (mg)	18	72	68
Vitamin B_6 (mg)	2	8	7.6
Folate (mcg) or (DFE)	400	1600	1512
Zinc (mg)	15	60	57

*The U.S. RDA does not provide recommendations for vitamin A (mcg RAE); for purpose of fortification of ready-to-eat cereal, 1704 vitamin A (mcg RAE) was added per pound of ready-to-eat cereal in the food supply, beginning in 1974.

[3]Three portion sizes of cereal based on density: 15 grams (light-weight cereals: <20 grams per cup), 20 grams (medium-weight cereals: 20-43 grams per cup), 55 grams (heavy-weight cereals: >43 grams per cup).

Cooked Cereals

FDA's enrichment standards for farina have remained unchanged since they were established in the early 1970s (DHHS, 1974, 1988) and are thiamin, 2.0-2.5 mg; riboflavin, 1.2-1.5 mg; niacin, 16-20 mg; and iron, 13 mg. Although instant cereals and other/mixed-grain cooked cereals do not have established standards for enrichment, most cereal manufacturers voluntarily enrich the cereals. FDA enrichment standards for farina are the basis for the addition of thiamin, riboflavin, niacin, and iron to both instant and other/mixed-grain cerals in the food supply. However, the cereal "Nutrition Facts" labels show that the levels of these nutrients more closely align with those as stated for the fortification of ready-to-eat cereals—25 percent of the U.S. RDA per 1-ounce dry weight serving.

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APPENDIX B

Total Fiber

In 2002, the Institute of Medicine, Food and Nutrition Board (FNB) of the National Academy of Sciences released a report in its series on Dietary Reference Intakes (DRIs) that included for the first time recommendations for the intake of total fiber (IOM, 2002) (table B1). These recommendations are based on studies that show an increased risk for heart disease when diets low in fiber are consumed. The FNB also looked at the evidence for other proposed benefits of fiber, such as prevention of colon cancer and promotion of weight loss, but scientific data on these benefits were inconclusive.

Fiber Definitions

Along with making recommendations for intake of total fiber, the FNB also considered the definition of fiber for health claims. Many new foods are marketed as "containing fiber," but the food industry lacks a regulatory and uniform definition of fiber such that the usefulness of some content claims is questionable. Therefore, the report (IOM, 2002) provides a specific definition of what should be called fiber in food. It defines "total fiber" as the combination of "dietary" and "functional" fiber. *Dietary fiber* is the edible, non-digestible component of carbohydrates and lignin naturally found in plant food; however, bacteria in the lower gut may metabolize part of it. Some foods with dietary fiber include cereal bran, flaked corn cereal, sweet potatoes, legumes, and onions. *Functional fiber* refers to those fiber sources that have similar health benefits to dietary fiber but are isolated or extracted from natural sources or are synthetic. An example would be pectin extracted from citrus peel and used as a gel that is the basis for jams and jellies. These definitions exclude fiber-like products, either extracted or synthesized, that do not have proven health benefits.

Fiber Recommendations

The DRI for fiber intake ranges between 19 and 38 grams per day depending on age and gender. For adults 50 years and younger, the recommended daily intake of total fiber is 38 grams for men and 25 grams for women; for adults older than 50 years of age, the recommended intake of daily total fiber is 30 grams for men and 21 grams for women per day (IOM, 2002) (table B1). On average, Americans only consume 14 grams of dietary fiber per day. Thus, for many people, meeting the DRI for fiber may require changes in their eating habits. Eating several servings of whole grains, fruits, vegetables, and dried beans each day is good way to boost fiber intake. However, a person who is not used to eating high-fiber foods regularly should make these changes gradually to avoid problems with gas and diarrhea. Anyone with a chronic disease should consult a physician before greatly altering a diet.

Table B1: Dietary Reference Intakes (DRI) for fiber

Age (years)	Grams/day fiber
Children	
1-3	19
4-8	25
Males	
9-13	311
4-18	38
19-50	38
51+	30
Females	
9-13	26
14-18	26
19-50	25
51+	21
Pregnancy	
≤18	28
18+	28
Lactation	
≤18	29
18+	29

Fiber Benefits[1]

Foods containing dietary fiber including fruit, vegetables, nuts, and grains have health benefits:

Dietary fiber is found only in plant foods: fruits, vegetables, nuts, and grains. Meat, milk, and eggs do not contain fiber. The form of food may or may not affect its fiber content. Canned and frozen fruits and vegetables contain just as much fiber as raw ones. Other types of processing, though, may reduce fiber content. Drying and crushing, for example, destroy the water-holding qualities of fiber. The removal of seeds, peels or hulls also reduces fiber content. Whole tomatoes have more fiber than peeled tomatoes, which have more tomato juice. Likewise, whole wheat bread contains more fiber than white bread. See table B2 for a list of food supply commodities and fiber content.

Fiber may be beneficial in treating or preventing constipation, hemorrhoids, and diverticulosis:

In particular, insoluble fiber binds water, making stools softer and bulkier. Wheat bran and whole grains contain the most insoluble fiber, but vegetables and beans also are good

[1]Adapted from Anderson and Young (2003).

Table B2: Dietary fiber content of foods (Anderson and Wilkins)

	Serving size	Fiber (grams)
Breads, cereals, grains		
White bread	1 slice	0.7
Whole grain bread	1 slice	2.1
100% All Bran	1/3 cup	5.1
Corn Flakes	1 cup	0.8
Shredded Wheat	1 biscuit	3.1
Oatmeal, cooked	1 cup	1.9
Rice, brown, cooked	1/3 cup	1.6
Rice, white, cooked	1/3 cup	0.5
Fruit		
Apple	1/2 large	2.0
Apricots	2	1.4
Banana	1/2 medium	1.5
Blackberries	1/2 cup	5.3
Dates	2	1.6
Grapes	10	0.5
Grapefruit	1/2	0.5
Melon	1 cup	1.5
Nectarine	1	3.3
Orange	1 small	2.0
Peach	1	1.6
Pear1	medium	2.0
Pineapple	1/2 cup	0.8
Plums	3 small	1.8
Prunes	2	2.4
Raisins	1 1/2 T	1.0
Strawberries	1 cup	3.1
Vegetables		
Beans, baked	1/2 cup	9.3
Beans, green	1/2 cup	2.1
Beets	1/2 cup	2.1
Broccoli	1/2 cup	3.5
Cabbage	1/2 cup	2.1
Carrots	1/2 cup	2.4
Cauliflower	1/2 cup	1.6
Celery	1/2 cup	1.1
Corn	1/2 cup	4.7
Lentils, cooked	1/2 cup	3.7
Lettuce	1/2 cup	0.8
Peas	1/2 cup	1.4
Potato, baked	1/2 medium	1.9
Sweet potato	1/2 medium	2.1
Tomato	1 small	1.5
Winter squash	1/2 cup	3.5
Zucchini squash	1/2 cup	2.0
Other foods		
Meat, milk, eggs		0
Nuts	2T	2.2
Almonds	2T	1.5
Peanuts	2T	0.8

sources. Such fibers increase fecal bulk and speed up the passage of food through the digestive tract. Fiber, especially that found in whole grain products, is helpful in the treatment and prevention of constipation, hemorrhoids, and diverticulosis. Diverticula are pouches of the intestinal wall that can become inflamed and painful. In the past, a low-fiber diet was prescribed for this condition. It is now known that a high-fiber diet gives better results once the inflammation has subsided.

Water-soluble fiber helps decrease blood cholesterol levels:
Low blood cholesterol levels (below 200 mg/dl) have been associated with a reduced risk of coronary heart disease. The body eliminates cholesterol through the excretion of bile acids. Water-soluble fiber, such as pectin and gum found inside plant cells, binds bile acids, suggesting that a high-fiber diet may result in an increased excretion of cholesterol. Some types of fiber, however, appear to have a greater effect than others. The fiber found in rolled oats is more effective in lowering blood cholesterol levels than the fiber found in wheat. Pectin has a similar effect in that it, too, can lower the amount of cholesterol in the blood.

A high-fiber diet may reduce the risk of some cancers:
Dietary fiber may help reduce the risk of some cancers, especially colon cancer, but this claim requires more scientific evidence to state with certainty. The concept that a high-fiber diet reduces colon cancer risk is based on information that insoluble fiber increases the rate at which wastes are removed from the body. This means the body may have less exposure to toxic substances produced during digestion. A diet high in animal fat and protein also may play a role in the development of colon cancer.

A high-fiber diet may be useful for weight management:
High-fiber diets may be useful for people who wish to lose weight. Fiber itself has no calories, yet provides a “full” feeling because of its water-absorbing ability. For example, an apple is more filling than a half cup of apple juice that contains about the same calories. Foods high in fiber often require more chewing, so a person is unable to eat a large number of calories in a short amount of time.

Food Labeling of Fiber

Nutrients required on food labels reflect current public health concerns and coincide with current public health recommendations. Nutrition labels now list a Daily Reference Value (DRV) for specific nutrients, including fiber. The DRV for fiber is 25 grams per day based on a 2,000-calorie diet or 30 grams per day based on a 2,500-calorie diet. The fiber content of a food is listed in grams and as a percentage of the daily value.

Specific health claims can be made for food products that meet specific requirements. For example: “Diets low in saturated fat and cholesterol and rich in fruits, vegetables, and grain products that contain fiber, particularly soluble fiber, may reduce the risk of coronary heart disease.” In order to make a health claim about fiber and coronary heart disease, the food must contain at least 0.6 grams of soluble fiber per reference amount. The soluble fiber content must be listed and cannot be added or fortified. A product containing a health claim for fiber and coronary heart disease must also meet the definitions of a lowfat, low in saturated fat, and low in cholesterol product. A statement such as “made with oat bran” or “high in oat bran” implies that a product contains a considerable amount of the nutrient. Claims that imply a product contains a particular amount of fiber can be made only if the food actually meets the definition for “high fiber” or “good source of fiber,” whichever is appropriate (Farley, 1993; Kurtzweil, 1993). The following terms describe products that can help increase fiber intake:

- High fiber: 5 g or more per serving
- Good source of fiber: 2.5 g to 4.9 g per serving
- More or added fiber: At least 2.5 g more per serving than the reference food

Fiber Intake, a Balanced Diet, and Supplements

Although fiber is important, it is just one part of a properly balanced diet. It is possible that too much fiber may reduce the amount of calcium, iron, zinc, copper, and magnesium that is absorbed from foods. Deficiencies of these nutrients could result if the amount of fiber in the diet is excessive, especially in young children (Duyff, 2002).

Fiber supplements are sold in a variety of forms, from bran tablets to purified cellulose. Many laxatives sold as stool softeners actually are fiber supplements. Fiber’s role in the diet is still being investigated. It appears that the various types of fiber have different roles in the body. For these reasons, avoid fiber supplements. Instead, eat a variety of fiber-rich foods. This is the best way to receive the maximum benefits from each type of fiber present in foods and obtain necessary nutrients.

References for Appendix B

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