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AgLetter

RECENT TRENDS IN FOOD CONSUMPTION

A USDA report on food consumption provides insight on broad trends that affect both consumers and producers. The report—***Food Consumption, Prices, and Expenditures, 1970-93***—along with more recent updates indicates that per capita poultry consumption continues to climb while that for beef moved higher in 1994 for the first time in several years. Per capita consumption of cheese, soft drinks and bottled water, fruits and vegetables, and flour and cereal products are also trending higher. In contrast, the demand for eggs and beverage milk continues to weaken. Overall, the gains in food expenditures at eating establishments continue to outpace that for food consumed at home and the rise in incomes continues to exceed that for food expenditures.

It is important to understand what the measures of per capita food consumption actually represent. For most food products, the development of consumption data relies upon the measurement of commodity flows at the farm or processor level and does not measure products sold at the retail level. However, the USDA has developed conversion factors for some products—such as meat and poultry—to obtain retail-weight equivalents. But the data generally represent the *availability* of food for human consumption and as such is only an approximation of actual consumption. However, this still provides considerable insight into broad trends over a number of years that mostly reflect changes in per capita food consumption.

Several factors are believed to influence food demand and consumption over time. These include population and labor force changes, income growth, the amount and quality of information available to consumers, and production and processing technology. Regarding population characteristics, research indicates that food consumption patterns tend to differ across age groups. Consequently, the aging of the U.S. population will continue to be a factor in determining food consumption patterns. In addition, ethnic minorities—with specific food preferences of their own—account for an expanding share of the U.S. population.

Income and labor force characteristics also influence food consumption and expenditures. An important trend in this area is the ongoing rise in the proportion of women that comprise the U.S. labor force. This helped fuel gains in personal income and—as the amount of time available for food preparation at home became more limited—increased the demand for processed foods and eating away from home.

Information on the link between diet and health is another factor that influences the pattern of food consumption. Consumers have been inundated with health-related information on the appropriate levels of sugar, salt, fat, cholesterol, carbohydrates, and fiber in their diets. The USDA's dietary recommendations—symbolized by its food pyramid—and the changes to food labeling laws are recent examples of attempts to increase and improve the information directed towards consumers.

Production and processing technology also influence food consumption. For example, the "factory" model for producing chicken and turkey has led to expanding supplies of poultry and a decline in the inflation-adjusted costs of production. This model is also being adapted to pork production in some parts of the U.S. Advances in biotechnology promise additional gains in farm productivity and

Per capita consumption of selected foods, pounds

	1970-79 Average	1980-89 Average	1990-92 Average	1993	1994
Beef	80.9	71.8	63.3	61.5	63.7
Pork	45.0	47.7	47.6	48.7	49.4
Chicken	28.4	36.2	44.4	48.5	49.4
Turkey	6.8	9.9	14.0	14.1	14.2
Fish and shellfish	12.4	14.2	14.8	14.9	n.a.
Eggs	36.6	33.0	30.1	30.1	30.4
Milk (gal.)	29.8	26.5	25.6	24.8	n.a.
Fats and oils	53.6	60.7	63.9	65.0	n.a.
Fresh fruit	99.4	113.1	117.6	124.3	n.a.
Fresh vegetables	147.0	155.3	165.2	170.7	n.a.
Processed fruit	24.4	22.4	23.1	22.8	n.a.
Processed vegetables	183.9	189.4	215.5	218.6	n.a.
Juice (gal.)	6.4*	7.7	7.3	8.4	n.a.
Flour and cereal products	138.0	157.3	185.3	189.2	n.a.
Caloric sweeteners	124.6	129.0	141.3	147.1	n.a.

*1971-79 average.
SOURCE: U.S. Department of Agriculture.

output. Furthermore, improved technology for shipping fresh fruit and vegetables increases the availability of these commodities throughout the year and reduces the price variability that stems from seasonal supply disruptions.

Over the past ten years, the per capita consumption of red meat and poultry registered an equal number of gains and losses. But there was a net increase over time, however, and consumption per person was 7 percent higher in 1994 when compared to ten years earlier. But even though these consumption estimates are based upon measurements of production at the packing plant level, comparisons among beef, pork and poultry at this stage are misleading thanks to the differing amounts of bone in whole carcasses and in various cuts. This problem of measurement and comparison was compounded in the past because poultry meat used in the manufacture of pet foods was included in human consumption estimates. To combat these complications, the USDA revised the data to reflect the use of poultry for pet food and the amount of meat purchased excluding bone. Boneless series were also developed for beef and pork to improve comparisons.

On a boneless, retail-weight basis, the per capita consumption of beef, pork, and poultry all increased in 1994. This was the first time since 1985 that per capita consumption of all three types of meat rose simultaneously. Aided by increased supplies and firm demand, per capita beef consumption rose nearly 4 percent to almost 64 pounds in 1994. This was the first increase in nine years. In comparison, the per capita consumption of poultry posted a year-over-year gain in 1994 for the nineteenth consecutive year, rising 2 percent. This historical upward trend took the per capita consumption of poultry past beef for the first time in 1993 but the two were nearly identical last year. Pork consumption posted an annual gain of nearly 2 percent in 1994 to reach nearly 50 pounds per person, its highest level since 1981. However, there was no clear long-term trend in per capita use of pork.

On a milk-equivalent basis, per capita consumption of all dairy products was variable in recent years. Consequently, per capita consumption in 1993—the latest year for which data is available—was nearly the same as ten years earlier. Though per capita sales through commercial channels were generally rising during this period, the gains were offset by a decline in the level of donations through government commodity programs. Among the broad dairy product categories, per capita consumption of cheese showed the strongest and steadiest gains in recent years. Reflecting this, the consumption of cheese per person rose by over one fourth from 1983 through 1993. Most of this growth stemmed from Italian cheeses, particularly mozzarella. In contrast, per capita consumption of American cheese was flat to declining during the last ten years. Frozen dairy products—such as ice cream, ice milk, sherbert, and frozen yogurt—have also trended upward, rising 8 percent from 1983 through 1993.

In contrast to the gains in cheese and frozen dairy product consumption, the per capita disappearance of fluid milk continued its long term decline. Consumption per person was down 6 percent in 1993 from the level of ten years earlier. The decline was driven by the drop-off in consumption of whole milk, which more than offset steady gains in the use of lowfat milk. The per capita consumption of lowfat milk surpassed that of whole milk in 1987 and the gap between the two has widened ever since. However, consumption of lowfat milk took an unexpected dip in 1993, the most recent year for which data is available. USDA analysts expect the shift from whole milk to lowfat milk to slow over the remainder of this decade.

The consumption patterns of other beverages were quite dissimilar to that of fluid milk. Moreover, consumption of soft drinks, coffee, and alcohol generally exceeded that of milk from 1983 through 1993. Bottled water enjoyed spectacular growth as per capita consumption nearly tripled from 1983 through 1993. Per capita consumption of soft drinks also enjoyed steady growth, rising by nearly a third during the same period. The gains in soft drink consumption have been linked to consumers eating out more often, while concern over the safety of water supplies is given credit for the boom in bottled water. In comparison, no clear trends were evident in the per capita consumption of coffee and tea, while that for alcohol has been in a general decline since the early 1980s.

The use of food fats and oils has risen over the past several years. From 1983 through 1993, per capita consumption increased by 8 percent. Most of the gain stemmed from rising consumption of shortening, and salad and cooking oils. These products together accounted for 70 percent of fat and oil consumption in 1993 while butter and margarine accounted for another 23 percent. A relatively small share came from lard, edible beef tallow, and specialty fats and oils used in confectionery products and non-dairy creamers. The USDA report also indicated that the consumption series for fats and oils may be overstated due to the growth in eating out, particularly at restaurants that deep-fry food. These establishments use large amounts of oil that are not actually consumed by humans but end up as waste. This provides at least a partial explanation of the seeming paradox of increased health consciousness and the rising use of fats and oils.

Like beverage milk, the per capita consumption of eggs is in a long term decline. The 1994 level was down nearly a tenth from ten years earlier. The oft-cited reasons for this decline are consumer concerns over cholesterol plus the perception that many individuals either skip breakfast or choose quick-preparation foods such as cereals or pastries. But hidden within the overall decline in per capita egg consumption is a significant gain in the demand for eggs used in processing. In 1993, the per capita use of eggs in processed products was up 60 percent from the 1983 level. Consequently, the share of total per capita egg consumption accounted for by processing has been on the upswing for several years, and came in at nearly one quarter in 1993.

Per capita consumption of flour and cereal products experienced relatively strong gains from 1983 through 1993, rising 28 percent. Particularly rapid gains were made by durum wheat flour (used to manufacture pasta), oat products, rice, and to a lesser extent, corn products. In comparison, the per capita consumption of white and whole wheat flour registered relatively smaller gains. USDA analysts attribute the rise in flour and cereal consumption to a variety of factors. These include increased purchases of variety breads, fast food sales of products that require buns, and a greater number of in-store bakeries selling fresh goods. Furthermore, research on food expenditures indicates that older individuals spend relatively more on cereal and bakery products than their younger counterparts. In addition, the health community has advised consumers to eat more grains and complex carbohydrates.

Per capita consumption of sweeteners generally expanded over the past ten years. Caloric sweeteners consist primarily of cane sugar, beet sugar, and corn sweeteners—such as high fructose corn syrup—and account for roughly 85 percent of per capita sweetener consumption. Low-calorie, synthetic sweeteners form most of the remainder. Furthermore, corn sweeteners continue to garner an increasing share of per capita consumption, as usage per person expanded by over 50 percent from 1983 through 1993. Much of this increase came about as soft drink bottlers switched from sugar to high fructose corn syrup. Moreover, the increased use of corn sweeteners seems destined to continue in light of the ongoing gains in soft drink consumption. Industry reports of rising sales of ready-to-drink teas and juices that utilize corn sweeteners also suggest future gains in per capita consumption. In contrast, per capita sugar consumption in 1993 was still well below that of ten years earlier despite edging upward in recent years. The USDA attributes the recent improvement to increased use by food manufacturers that produce baked goods, cereals, and confectioneries; gains in the immigrant population, who tend to use relatively more sugar in food preparation; and the shift in food consumption from homes to restaurants.

Spurred by the perceptions of a healthier diet and aided by improved shipping technology, Americans generally increased their consumption of fresh fruit and vegetables from 1983 through 1993. Per capita consumption of fresh fruit was up 13 percent in 1993 when compared to ten years earlier, while that for fresh vegetables registered a somewhat larger gain. Furthermore, per capita consumption of processed vegetables increased by over a fifth, boosted by gains in potatoes, tomatoes, and sweet corn. Together, these three items accounted for over 80 percent of processed vegetable consumption in 1993. In comparison, there does not appear to be any clear trend in the per capita consumption of processed fruit.

U.S. consumers spent over $617 billion on food in 1993. This was an increase of two thirds from ten years earlier. Restaurants and other foodservice establishments continued to take an expanding share of the consumer's food dollar. Their portion came to nearly 46 percent in 1993, compared to 41 percent a decade earlier. Most of the food expenditures—80 percent—were by families and individuals. Businesses and governments accounted for 14 percent and 6 percent, respectively. The business share has expanded slightly in recent years at the expense of families and individuals. The USDA report further indicated that disposable personal income rose nearly 88 percent during the ten year period examined. In inflation-adjusted dollars, the increase in personal income was about a third, which exceeded the rise in real food spending. Consequently, the percentage of income spent by consumers on food continued to decline. The USDA estimates that Americans spent 11 percent of their personal disposable income for food in 1993, compared to 13 percent a decade earlier.

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SELECTED AGRICULTURAL ECONOMIC INDICATORS

	Latest period	Value	Percent change from Prior period	Year ago	Two years ago
Prices received by farmers *(index, 1990–92=100)*	May	100	0.0	–1	–3
Crops *(index, 1990-92=100)*	May	117	2.6	9	14
Corn *($ per bu.)*	May	2.38	0.8	–8	11
Hay *($ per ton)*	May	90.40	0.1	–9	4
Soybeans *($ per bu.)*	May	5.44	–2.0	–20	–6
Wheat *($ per bu.)*	May	3.70	6.3	8	19
Livestock and products *(index, 1990-92=100)*	May	88	–2.2	–9	–15
Barrows and gilts *($ per cwt.)*	May	37.20	3.3	–14	–22
Steers and heifers *($ per cwt.)*	May	62.80	–6.4	–10	–22
Milk *($ per cwt.)*	May	12.30	–0.8	–4	–5
Eggs *(¢ per doz.)*	May	56.3	–9.2	–4	–11
Consumer prices *(index, 1982-84=100)*	May	152	0.2	3	6
Food	May	148	–0.1	3	5
Production or stocks					
Corn stocks *(mil. bu.)*	March 1	5,591	N.A.	40	–2
Soybean stocks *(mil. bu.)*	March 1	1,370	N.A.	34	13
Wheat stocks *(mil. bu.)*	March 1	968	N.A.	–6	–7
Beef production *(bil. lb.)*	April	1.85	–10.2	–3	4
Pork production *(bil. lb.)*	April	1.41	–14.0	–2	–4
Milk production* *(bil. lb.)*	May	12.0	4.2	1	N.A
Receipts from farm marketings *(mil. dol.)*	February	12,848	–24.6	–4	0
Crops**	February	5,164	–45.3	6	10
Livestock	February	6,956	–7.5	–5	–1
Government payments	February	727	698.9	–39	–32
Agricultural exports *(mil. dol.)*	March	5,037	4.5	29	30
Corn *(mil. bu.)*	March	196	1.8	77	44
Soybeans *(mil. bu.)*	March	83	–9.1	55	4
Wheat *(mil. bu.)*	March	107	1.8	3	–15
Farm machinery sales *(units)*					
Tractors, over 40 HP	May	5,851	–20.0	15	8
40 to 100 HP	May	3,987	–1.7	12	6
100 HP or more	May	1,864	–42.7	21	14
Combines	May	620	–20.3	17	49

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