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Spending on Meat, Poultry, Fish, and Shellfish

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Traditional consumption data from USDA provide the food sector with information on general trends of what Americans are eating. However, such data reflect the total amount of food available and not the amount consumed at home versus that eaten in restaurants or in processed foods. Comparing trends in at-home per capita spending for red meat, poultry, fish, and shellfish with total per capita consumption of these foods offers another estimate of American eating patterns.

During 1980-85, total per capita consumption of most meat products increased even though there was a decline in food spending for at-home consumption (*see sidebar*). This may be explained by the growth in away-from-home eating and the increased use of these foods as ingredients in entrees.

For instance, total per capita pork consumption dropped 10 percent, while beef increased 3 percent, fish and shellfish climbed 13 percent, and poultry rose 15 percent from 1980 to 1985 (*table 1*). On the other hand, at-home spending (adjusted for price changes) for meat, poultry, and fish declined about 7 percent. Purchases of pork for at-home use dropped 18 percent, beef, 14 percent, and poultry, 1 percent. Fish and seafood was the only category that rose, up 11 percent (*table 2*).

Prices of the commodities and their substitutes have a direct effect on what we buy. Since red meats, poultry, fish, and shellfish are substitutes for one another, their relative prices affect how much consumers purchase. For example, if pork prices increase relative to poultry, consumers may use more poultry. The

Estimating Consumption

Total per capita consumption (disappearance) statistics for meat, poultry, fish, and shellfish are based on annual estimates of production, adjusted for imports, exports, and stock changes. The data are collected at the processing level and represent the total amounts available for direct consumption or as ingredients for manufactured food mixtures used in households, eating places, and institutions. These numbers are refined by removing bone and some fat from the carcass weight, but no adjustments are made for spoilage or cooking loss.

Another way to look at consumption trends is to examine food

spending patterns. Data on expenditures for meat, poultry, fish, and shellfish eaten at home are available from the Continuing Consumer Expenditure Survey (CCES), conducted by the Labor Department's Bureau of Labor Statistics. By adjusting the data for price changes, we can estimate the amount of these foods consumed at home. However, the expenditure data for meat, poultry, fish, and shellfish do not include the relatively small quantities used as ingredients in entrees and other processed products. (Data are not available for directly measuring the quantity of food commodities eaten away from home.)



Despite higher prices, total consumption of fish rose 13 percent between 1980 and 1985.

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Table 1. Poultry and Fish Consumption Have Steadily Increased in the 1980's

Year	Poultry			Red meat					Fish and shellfish	Total red meat, poultry, and fish ¹
	Chicken	Turkey	Total ¹	Beef	Veal	Pork	Lamb	Total ¹		
<i>Pounds per capita²</i>										
1980	34.5	8.3	42.8	72.1	1.3	49.1	1.0	123.4	12.8	178.9
1981	35.5	8.5	44.0	72.7	1.3	46.8	1.0	121.9	12.9	178.8
1982	36.5	8.5	45.0	72.4	1.4	41.9	1.1	116.7	12.3	174.0
1983	37.0	8.9	45.9	73.8	1.4	44.0	1.1	120.3	13.1	179.2
1984	38.2	9.0	47.2	73.6	1.5	43.7	1.1	119.9	13.7	180.8
1985	39.8	9.5	49.4	74.3	1.5	44.1	1.1	120.9	14.4	184.7
1986	40.6	10.5	51.1	74.1	1.6	41.6	1.0	118.3	14.7	184.1
1987	43.4	11.9	55.3	69.2	1.3	41.9	1.0	113.4	15.4	184.1

¹Totals may not add due to rounding. ²Boneless equivalent. Conversion factors for red meats adjust numbers from carcass to boneless weight: beef 0.698 (1980-85) and 0.69 (1986-87); pork 0.67. Fish and shellfish is calculated on an edible-weight basis by the Commerce Department.

Table 2. Comparing Prices, Expenditures, and Consumption

Item	Consumer price index		Per capita expenditures for at-home consumption ¹		Per capita consumption (disappearance)	
	1980	1985	1980	1985	1980	1985
<i>Percent of 1980</i>						
Meat						
Beef	100	99	100	86	100	103
Pork	100	121	100	82	100	90
Other red meat	100	108	100	104	100	113
Poultry	100	113	100	99	100	115
Fish and shellfish	100	123	100	111	100	113
Meat, poultry, and fish	100	109	100	93	100	103

¹Based on price deflated data from the *Continuing Consumer Expenditure Survey* (CCES).

Consumer Price Index for meat, poultry, and fish increased about 9 percent between 1980 and 1985. Separately, beef decreased less than 1 percent, poultry increased 13 percent, pork rose 21 percent, and fish climbed about 23 percent.

Because prices, expenditures, and consumption are interrelated, the jump in pork prices, relative to beef and chicken, partially explains the per capita decline in both total pork consumption and at-home expenditures. At the same time that beef prices decreased slightly, beef expenditures for at-home consumption fell 14 percent. Since the consumption data indicate we ate more beef per capita, away-from-home meals and processed meat products likely made up the difference (*see sidebar*).

Poultry prices increased 13 percent between 1980 and 1985, while at-home expenditures dropped 1 percent. However, a 15-percent gain in total per capita consumption suggests a rapid increase in

Sales of Meat Entrees

Meat entrees are some of the fastest growing items sold in foodstores, according to recent ERS estimates. Sales of frozen entrees, which often contain several kinds of meat, definitely increased from 1983 to 1986. Poultry dishes rose from 1.48 pounds to 1.62 pounds per capita. Italian ones increased 0.48 pounds. Meat and Mexican items increased 0.12 pounds and 0.17 pounds, respectively. And oriental entrees rose 0.19 pounds. All of this indi-

cates an increase in consumption of frozen meals containing meat.

Sales of complete frozen dinners also showed an increase from 1983 to 1986 with per capita consumption rising 0.32 pounds. Pot pies increased 0.17 pounds. Frozen ground beef went from 0.87 to 1.03 pounds, a 0.16-pound increase. Nonfrozen items also rose during the period. For instance, canned tuna rose 0.42 pounds and sliced lunch meat increased 0.31 pounds, while bacon showed a 0.25-pound drop in per capita consumption.

Sales of Processed Meat Products Are on the Rise

Item	Foodstore sales			
	1983	1984	1985	1986
<i>Pounds per capita</i>				
Canned				
Tuna	2.69	2.81	3.03	3.11
Beef stew	0.45	0.46	0.48	0.46
Frozen				
Dinners	1.54	1.90	1.92	1.86
Poultry entree	1.48	1.56	1.63	1.62
Italian entree	0.95	1.19	1.41	1.43
Ground beef	0.87	0.90	1.01	1.03
Pot pies	0.86	0.95	0.99	1.03
Breaded fish	0.84	0.84	0.88	0.89
Meat entree	0.57	0.57	0.65	0.69
Mexican entree	0.34	0.37	0.44	0.51
Sausage dinner	0.30	0.36	0.45	0.47
Oriental entree	0.21	0.36	0.42	0.40
Refrigerated				
Frankfurters	3.78	3.66	3.98	3.87
Bacon	3.50	3.41	3.48	3.25
Sliced lunch meat	2.90	2.98	3.20	3.21
Breakfast sausage	1.48	1.42	1.45	1.54
Canned ham	0.56	0.43	0.46	0.41
Total	23.32	24.17	25.88	25.78

poultry eaten away from home, probably in fast-food establishments.

Fish and shellfish prices increased about 23 percent. Yet despite the higher prices, total consumption and at-home expenditures rose 13 and 11 percent, respectively. The gain indicates increased demand for these items.

Expenditures Differ Between Households

Household characteristics—such as income, age of the head of the household, and size of the household—also influence expenditures for meat, poultry, fish, and shellfish eaten at home (*table 3*).

The Continuing Consumer Expenditure Survey data indicate that households at various income levels changed their expenditure patterns at different rates between 1980 and 1985. Lower income households bought less meat, poultry, fish, and shellfish. Household spending for beef fell the most, 34 percent. Pork dropped 23 percent, fish and shellfish, 14 percent, and poultry, 13 percent. The decline in meat expenditures in lower income households appears to be greater for the more expensive sources of protein, such as beef and pork. For the middle income group—households between \$15,000 and \$19,999—expenditures for fish products increased 15 percent. Beef and poultry decreased 32 and 18 percent, respectively, and pork fell 17 percent.

Households with incomes above \$30,000 cut spending on beef 15 percent and pork 10 percent. This group increased poultry purchases 5 percent and fish and shellfish, 21 percent. But these figures only reflect at-home expenditures, and this higher income group tends to be big food spenders away from home.

Household food expenditures also appear to vary significantly with the age of

Table 3. At-Home Spending Varied With Household Characteristics

Characteristic	Per capita expenditures ¹							
	Beef		Pork		Poultry		Fish and shellfish	
	1980	1985	1980	1985	1980	1985	1980	1985
<i>Percent of 1980</i>								
Income								
Under \$5,000	100	66	100	77	100	87	100	86
\$15,000 to \$19,999	100	68	100	83	100	82	100	115
\$30,000 and over	100	85	100	90	100	105	100	121
Age of household head								
25 to 34	100	70	100	74	100	92	100	130
35 to 44	100	87	100	79	100	100	100	109
45 to 54	100	106	100	87	100	105	100	116
Over 64	100	94	100	88	100	91	100	93
Number of household members								
One	100	87	100	79	100	86	100	102
Two	100	96	100	86	100	101	100	110
Three	100	83	100	87	100	97	100	107

¹The data indicate how national food expenditures changed over time. Expenditure figures were deflated and then divided by the base year (1980) quantity to provide an approximate measure of changes in amounts purchased.

the head of the household. The survey indicates that households headed by young people (between age 25 and 34) reduced beef, pork, and poultry purchases by 30, 16, and 8 percent, respectively, between 1980 and 1985. Spending on fish and shellfish for at-home consumption, on the other hand, rose 30 percent. This in-

crease was in all categories, except canned.

In households headed by 35- to 44-year-olds, pork expenditures dropped 21 percent, beef lost 13 percent, poultry remained the same, and fish and shellfish rose 9 percent. For the 45- to 54-year-old age group, pork was the big loser with a 13-percent drop. Poultry rose 5 percent, beef increased 6 percent, and

fish gained 16 percent. The 45- to 54-year-olds were the largest spenders for food consumed at home, probably because they have the largest household income of any of the groups.

For the over-64 age group, purchases in all four categories fell. Beef dropped 6 percent, fish and shellfish, 7 percent, poultry, 9 percent, and pork, 12 percent. However, in general, older households tended to spend more for food consumed at home. That does not necessarily mean that older people spend more. As a group, younger people tend to eat out more often.

At-home expenditure patterns also varied with household size. In 1985, single-member households purchased less beef, pork, and poultry than in 1980, but 2 percent more fish and shellfish. Two-member households spent less in two categories. Beef fell 4 percent and pork dropped 14 percent, while poultry gained 1 percent and fish and seafood, 10 percent. Households with three members bought 17 percent less beef and 13 percent less pork. Poultry decreased 3 percent. Fish and shellfish increased 7 percent.

Not only was there considerable spending variation among household sizes during 1980-85, but substantial changes also occurred within given household sizes. Red meats and poultry did not do as well as fish and shellfish, with respect to changes in per person expenditures within households. In general, the survey data indicate that larger households increased their purchases per person during the period. ■