

Section 2. Household Spending on Food

This section provides information on how much households spent on food, as reported in the December 2002 food security survey. Food insecurity is a condition that arises specifically from lack of money and other resources to acquire food. In most households, the majority of food consumed by household members is purchased—either from supermarkets or grocery stores, to be eaten at home, or from cafeterias, restaurants, or vending machines to be eaten outside the home. The amount of money that a household spends on food, therefore, provides insight into how adequately it is meeting its food needs.¹² When households reduce food spending below some minimum level because of constrained resources, various aspects of food insecurity, such as disrupted eating patterns and reduced food intake, may result.

Methods

The household food expenditure statistics in this report are based on usual weekly spending for food, as reported by respondents after they were given a chance to reflect on the household's actual food spending during the previous week.¹³ Respondents were first asked about the actual amount of money their households

spent on food in the week prior to the interview (including any purchases made with food stamps) at: (a) supermarkets and grocery stores; (b) stores other than supermarkets and grocery stores such as meat markets, produce stands, bakeries, warehouse clubs, and convenience stores; (c) restaurants, fast food places, cafeterias, and vending machines; and (d) any other kind of place.¹⁴ Total spending for food, based on responses to this series of questions, was verified with the respondent, and the respondent was then asked how much the household usually spent on food during a week. Earlier analyses by ERS researchers found that food expenditures estimated from data collected by this method were consistent with estimates from the Consumer Expenditure Survey (CES)—the principal source of data on U.S. household expenditures for goods and services (Oliveira and Rose, 1996).

Food spending was adjusted for household size and composition in two ways. The first adjustment was calculated by dividing each household's usual weekly food spending by the number of persons in the household, yielding the "usual weekly food spending per person" for that household. The second adjustment accounts more precisely for the different food needs of households by comparing each household's usual food spending to the estimated cost of the Thrifty Food Plan for that household. The Thrifty Food Plan—developed by USDA—serves as a national standard for a nutritious, low-cost diet. It represents a set of "market baskets" of food that people of specific ages and genders could consume at home to maintain a healthful diet that meets current dietary standards, taking into account the food consumption patterns of U.S. households.¹⁵ Each household's reported usual weekly food spending

¹²Food spending is, however, only an indirect indicator of food consumption. It understates food consumption in households that receive food from in-kind programs, such as the National School Lunch and School Breakfast Programs, the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), meal programs for children in child care and for the elderly, and private charitable organizations. (Purchases with food stamps, however, are counted as food spending in the CPS food security survey.) Food spending also understates food consumption in households that acquire a substantial part of their food supply through gardening, hunting, or fishing, as well as in households that eat more meals at friends' or relatives' homes than they provide to friends or relatives. (Food spending overstates food consumption in households with the opposite characteristics.) Food spending also understates food consumption in geographical areas with relatively low food prices and overstates consumption in areas with high food prices.

¹³In CPS food security surveys that asked about both actual and usual food spending per week, median actual food spending was higher than median usual food spending. This finding was consistent across the various years in which the survey was conducted and across different household types. The reasons for this difference are under study. Pending outcomes of this research, analysts should be aware of a possible downward bias on food spending statistics based on "usual" food spending data.

¹⁴For spending in the first two categories of stores, respondents were also asked how much of the amount was for "nonfood items such as pet food, paper products, detergents, or cleaning supplies." These amounts are not included in calculating spending for food.

¹⁵The Thrifty Food Plan, in addition to its use as a research tool, is used as a basis for setting the maximum benefit amounts of the Food Stamp Program. (See appendix C for further information on the Thrifty Food Plan and estimates of the weekly cost of the Thrifty Food Plan and three other USDA food plans for each age-gender group.)

was divided by the cost of the Thrifty Food Plan for that household, based on the age and gender of each household member and the number of persons in the household (see appendix table C-1).

The median of each of the two food spending measures was calculated at the national level and for households in various categories to represent the usual weekly food spending—per person, and relative to the cost of the Thrifty Food Plan—of the typical household in each category. Medians are reported rather than averages because medians are not unduly affected by the few unexpectedly high values of usual food spending

that are believed to be reporting errors or data entry errors. Thus, the median better reflects what a typical household spent.

Data were weighted using food security supplement weights provided by the Census Bureau so that the interviewed households would represent all households in the United States. About 6 percent of households interviewed in the CPS food security survey did not respond to the food spending questions and were excluded from the analysis. As a result, the total number of households represented in tables 8 and 9 is somewhat smaller than that in tables 1 and 2.

Food Expenditures, by Selected Household Characteristics

In 2002, the typical U.S. household spent \$37.50 per person each week for food (table 8). Median household food spending relative to the cost of the Thrifty Food Plan was 1.25. That is, the typical household usually spent 25 percent more on food than the cost of the Thrifty Food Plan for its household type.

Households with children under age 18 generally spent less for food, relative to the Thrifty Food Plan, than those without children. The typical household with children spent 14 percent more than the cost of the Thrifty Food Plan, while the typical household with no children spent 37 percent more than the cost of the Thrifty Food Plan. Median food expenditures relative to the Thrifty Food Plan were lower for single females with children (1.03) and for single males with children (1.11) than for married couples with children (1.18). Median food expenditures relative to the Thrifty Food Plan were highest for men living alone (1.50).

Median food expenditures relative to the Thrifty Food Plan were lower for Black households (1.07) and Hispanic households (1.11) than for non-Hispanic White households (1.33). This finding is consistent with the lower average incomes and higher poverty rates of these racial and ethnic minorities.

As expected, higher income households spent more money on food than lower income households.¹⁶ The

¹⁶However, food spending does not rise proportionately with income increases, so high-income households actually spend a smaller proportion of their income on food than do low-income households.

typical household with income below the poverty line spent about 7 percent less than the cost of the Thrifty Food Plan, while the typical household with income above 185 percent of the poverty line spent 41 percent more than cost of the Thrifty Food Plan.

Median relative food spending of households outside metropolitan areas was 1.09, compared with 1.33 for households inside metropolitan areas. Median spending on food by households in the Midwest and South (1.21 and 1.24, respectively) was slightly lower than that for households in the Northeast (1.33) and West (1.36).

Median spending for food relative to the cost of the Thrifty Food Plan declined from 1.32 in 2001 to 1.25 in 2002, a decline of 5.3 percent.¹⁷ Declines were largest for households with no children present (4.9 percent) households with incomes above 185 percent of the poverty line (4.1 percent), and households living outside of metropolitan areas (4.4 percent). Median relative food spending declined only 1.1 percent for households with incomes below 130 percent of the poverty line.

¹⁷Statistics on personal consumption expenditures (PCE) for food published by the U.S. Bureau of Economic Analysis are at variance with the decline in food spending reported here. PCE statistics (revised June 26, 2003) show a 1.8-percent increase (adjusted for inflation) in per capita expenditures on food and beverages by individuals between the fourth quarter of 2001 and the fourth quarter of 2002. Even though the PCE statistics are constructed for different purposes and based on different definitions and data collection methods than the results reported here, the discrepancy raises questions about the decline in food spending relative to the cost of the Thrifty Food Plan observed in the CPS food security survey. Reasons for the discrepancy in findings for this period are under investigation.

Table 8—Weekly household food spending per person and relative to the cost of the Thrifty Food Plan (TFP), 2002

Category	Number of households ¹	Median weekly food spending	
		Per person	Relative to TFP
	<i>1,000</i>	<i>Dollars</i>	<i>Ratio</i>
All households	101,987	37.50	1.25
Household composition:			
With children < 18	36,919	30.00	1.14
At least one child < 6	16,407	26.67	1.13
Married-couple families	24,973	30.00	1.18
Female head, no spouse	9,062	26.67	1.03
Male head, no spouse	2,203	30.00	1.11
Other household with child ²	682	30.00	1.15
With no children < 18	65,068	44.00	1.37
More than one adult	38,716	40.00	1.30
Women living alone	14,957	45.00	1.38
Men living alone	11,395	52.00	1.50
With elderly	22,405	36.67	1.20
Elderly living alone	9,003	40.00	1.23
Race/ethnicity of households:			
White non-Hispanic	75,439	40.00	1.33
Black non-Hispanic	12,525	30.00	1.07
Hispanic ³	9,881	30.00	1.11
Other non-Hispanic	4,142	35.00	1.23
Household income-to-poverty ratio:			
Under 1.00	11,080	25.00	.93
Under 1.30	16,363	26.00	.94
Under 1.85	24,122	27.50	.97
1.85 and over	61,695	40.00	1.41
Income unknown	16,171	37.50	1.24
Area of residence:			
Inside metropolitan area	82,159	39.00	1.33
In central city ⁴	25,034	40.00	1.32
Not in central city ⁴	42,805	40.00	1.36
Outside metropolitan area	19,829	32.50	1.09
Census geographic region:			
Northeast	18,745	40.00	1.33
Midwest	23,543	35.00	1.21
South	37,073	37.50	1.24
West	22,627	40.00	1.36

¹Totals exclude households that did not answer the questions about spending on food. These represented 6.0 percent of all households.

²Households with children in complex living arrangements—e.g., children of other relatives or unrelated roommate or boarder.

³Hispanics may be of any race.

⁴Metropolitan area subtotals do not add to metropolitan area totals because central-city residence is not identified for about 17 percent of households in metropolitan statistical areas.

Source: Calculated by ERS using data from the December 2002 Current Population Survey Food Security Supplement.

Food Expenditures and Household Food Security

Food-secure households typically spent more on food than food-insecure households. Median food spending relative to the cost of the Thrifty Food Plan was 1.32 among food-secure households, compared with 0.98 among households classified as food insecure either with or without hunger (table 9). Thus, the typical food-secure household spent 35 percent more for food than the typical household of the same size and composition that was food insecure with hunger. Slightly more than half of the households that were food insecure spent, on a usual basis, less on food than the national average cost of the Thrifty Food Plan.

The relationship between food expenditures and food security was consistent across household structure, race/ethnicity, income, metropolitan residence, and geographic region (table 10). For every household type, median food spending relative to the cost of the Thrifty Food Plan was higher for food-secure than food-insecure households. This was true even for households within the same income category. For example, among households with incomes below the poverty line, median food spending relative to the cost of the Thrifty Food Plan was 0.90 for food-insecure households compared with 0.98 for food-secure households. Furthermore, for food-secure households, median food spending for every household type except those with incomes below 185 percent of the poverty line was higher than the cost of the Thrifty Food Plan.

Although the *relationship* between food expenditures and food security was consistent, the *levels* of food expenditure varied substantially across household types, even within the same food security status. For food-insecure households, food expenditures of the

typical households in most categories were close to the cost of the Thrifty Food Plan, but there were some notable exceptions. Food-insecure individuals living alone—especially nonelderly men—spent substantially more on food than the cost of the Thrifty Food Plan for their age and gender. Food-insecure households with incomes above 185 percent of the poverty line also registered median food expenditures substantially higher than the cost of the Thrifty Food Plan.¹⁸

¹⁸Analysis by ERS (Nord et al., 2000) has found that the experiences of food insecurity of higher and middle-income households are, disproportionately, occasional and of short duration. Their food expenditures during those food-insecure periods may have been lower than the amount they reported as their “usual” weekly spending for food.

Table 9—Weekly household food spending per person and relative to the cost of the Thrifty Food Plan (TFP) by food security status, 2002

Category	Number of households ¹	Median weekly food spending	
		Per person <i>Dollars</i>	Relative to TFP <i>Ratio</i>
All households	1,000 101,987	<i>Dollars</i> 37.50	<i>Ratio</i> 1.25
Food security status:			
Food secure	90,204	38.57	1.32
Food insecure	11,576	27.50	.98
Without hunger	7,926	26.67	.98
With hunger	3,650	30.00	.98

¹Totals for all households exclude households that did not answer the questions about spending on food. These represented 6.0 percent of all households. Totals in the bottom section also exclude households that did not answer any of the questions in the food security scale.

Source: Calculated by ERS using data from the December 2002 Current Population Survey Food Security Supplement.

Table 10—Median weekly household food spending relative to the cost of the Thrifty Food Plan (TFP), by food security status and selected household characteristics, 2002

Category	Food secure	Ratio ¹	Food insecure
All households	1.32		0.98
Household composition:			
With children < 18	1.18		.93
At least one child < 6	1.19		.95
Married-couple families	1.21		.95
Female head, no spouse	1.09		.92
Male head, no spouse	1.18		.89
Other household with child ²	1.15		NA
With no children < 18	1.39		1.06
More than one adult	1.33		.92
Women living alone	1.52		1.08
Men living alone	1.64		1.23
With elderly	1.21		.92
Elderly living alone	1.23		1.08
Race/ethnicity of households:			
White non-Hispanic	1.37		1.02
Black non-Hispanic	1.09		.93
Hispanic ³	1.16		.93
Other non-Hispanic	1.25		.94
Household income-to-poverty ratio:			
Under 1.00	.98		.90
Under 1.30	.96		.91
Under 1.85	1.00		.92
1.85 and over	1.43		1.12
Income unknown	1.24		.95
Area of residence:			
Inside metropolitan area	1.37		1.00
In central city	1.37		1.01
Not in central city	1.39		1.04
Outside metropolitan area	1.11		.90
Census geographic region:			
Northeast	1.36		1.08
Midwest	1.23		1.01
South	1.28		.92
West	1.41		.99

NA = Median not reported; fewer than 100 interviewed households in the category.

¹Statistics exclude households that did not answer the questions about spending on food and those that did not provide valid responses to any of the questions on food security. These represented 6.6 percent of all households.

²Households with children in complex living arrangements—e.g., children of other relatives or unrelated roommate or boarder.

³Hispanics may be of any race.

Source: Calculated by ERS using data from the December 2002 Current Population Survey Food Security Supplement.