

Section 2. Household Spending on Food

This section provides information on how much households spend for food, as reported in the September 2000 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.⁷ Inadequate spending for food can be seen as the process through which constrained resources reduce food consumption, disrupt eating patterns, and lead to food insecurity and hunger. Thus, the amount different types of households spend for food, and the relationship between food security and food spending, can provide additional insights into the nature of food insecurity and how households meet their food needs.

Methods

The household food expenditure statistics in this report are based on *usual* weekly spending for food, as reported after the respondent was given a chance to reflect on the details of the household's actual food spending during the previous week.⁸ 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

⁷Food 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 School Lunch and School Breakfast Programs, the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), meal programs for elderly, and private charitable organizations. (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 characteristic.) Food spending also understates food consumption in geographical areas with relatively low food prices and overstates consumption in areas with high food prices.

⁸In 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 in the 2000 survey. 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.

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.⁹ 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).

To compare food spending meaningfully across various types of households, expenditures must be adjusted for household size and composition. Two statistics are presented in this section. The first is 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 median of this measure is calculated at the national level and for households in various categories to represent the usual weekly food spending per person of the typical household in each category.

The second statistic adjusts more precisely for the different food needs of men, women, and children of various ages by comparing each household's usual spending to the estimated cost of the Thrifty Food Plan for that household.¹⁰ The cost of the Thrifty Food Plan was calculated for each household in the September 2000 CPS food security survey, based on the age and gender of each household member and the number of persons in the household (see appendix table C-1). The household's reported usual weekly food spending was

⁹For 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.

¹⁰The Thrifty Food Plan—developed by USDA—serves as a national standard for a nutritious diet at low cost. It represents a set of "market baskets" of food that people of specific age and gender 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. The 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.)

then divided by the cost of the Thrifty Food Plan for that household to provide a measure of the household's "relative" food spending. The median of this ratio for a specified group of households represents food spending, relative to the cost of the Thrifty Food Plan, of the typical household in that group. The median is reported rather than the mean (or arithmetic average) because the median is 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 relative to the Thrifty Food Plan.

The two statistics, median weekly spending on food per person and median spending on food relative to the cost of the Thrifty Food Plan, were calculated at the national level and for selected categories of households. 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 6.6 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 7 and 8 is 99.4 million rather than the actual total of 106.4 million.

Food Expenditures, by Selected Household Characteristics

At the national level, median household spending on food, relative to the cost of the Thrifty Food Plan, was 1.36 (table 7). That is, the typical household usually spent 36 percent more on food than the cost of the Thrifty Food Plan for its household type; this amounted to \$37.50 per person.¹¹ This latter statistic, median weekly food expenditures per person, is provided in table 7 as a readily understood point of reference. However, primary attention in the following discussion is given to median weekly food expenditures relative to the Thrifty Food Plan, because that statistic more reliably represents the relationship between food expenditures and the food needs of individual households.

Households with children generally spent less for food (relative to the Thrifty Food Plan) than those without children. The typical household with children under age 18 spent 22 percent more than the cost of the Thrifty Food Plan (relative food spending=1.22), while the typical household with no children spent 47 percent more than the cost of the Thrifty Food Plan (relative food spending=1.47). Median food expenditures

¹¹Several ERS studies have estimated food spending per person using different data sources and methods (Blaylock et al., 1992; Blisard, 2001; Clauson, 2000; and Frazao, 1992). For example, Blisard (2000) reported average weekly per person food spending of \$39.00 based on data from the 1998 Consumer Expenditure Survey (CES). This statistic is not directly comparable to the estimate of \$37.50 reported here, however. The CES-based estimate is the mean (arithmetic average), while the median is reported here. Preliminary analysis of CES data by ERS suggests median weekly per person food spending of \$37.00, which is very close to the estimate based on the CPS food security survey.

relative to the Thrifty Food Plan were lower for single females with children (1.11) and for single males with children (1.19) than for married couples with children (1.25). Median food expenditures relative to the Thrifty Food Plan were highest for men living alone (1.74).

Median food expenditures relative to the Thrifty Food Plan were lower for Black households (1.16) and Hispanic households (1.20) than for non-Hispanic White households (1.42). 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.¹² The typical household with income below the poverty threshold spent slightly less than the cost of the Thrifty Food Plan (relative food spending=0.98), while the typical household with income above 1.85 times the poverty line spent 52 percent more than the cost of the Thrifty Food Plan.

Median relative food spending of households outside metropolitan areas was 1.17, compared with 1.42 for households inside metropolitan areas. Median spending on food by households in the Midwest and South (both 1.32) was slightly lower than that for households in the Northeast (1.41) and West (1.47).

¹²However, 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.

Table 7—Weekly food spending relative to the cost of the Thrifty Food Plan (TFP), 2000

Category	Median weekly food spending		
	Total ¹ <i>1,000</i>	Per person <i>Dollars</i>	Relative to TFP <i>Ratio</i>
All households	99,383	37.50	1.36
Household composition:			
With children < 18	36,435	30.00	1.22
At least one child < 6	16,577	27.00	1.21
Married-couple families	25,291	31.30	1.25
Female head, no spouse	8,615	27.30	1.11
Male head, no spouse	1,977	30.00	1.19
Other household with child ²	522	31.30	1.24
With no children < 18	62,948	45.00	1.47
More than one adult	37,709	40.00	1.41
Women living alone	14,720	45.00	1.46
Men living alone	10,519	60.00	1.74
With elderly	22,442	36.00	1.27
Elderly living alone	8,913	40.00	1.30
Race/ethnicity of households:			
White non-Hispanic	74,854	40.00	1.42
Black non-Hispanic	11,780	32.50	1.16
Hispanic ³	8,973	31.30	1.20
Other non-Hispanic	3,776	37.00	1.32
Household income-to-poverty ratio:			
Under 1.00	11,566	26.70	.98
Under 1.30	16,802	27.50	1.02
Under 1.85	24,716	29.00	1.06
1.85 and over	60,701	41.70	1.52
Income unknown	13,966	37.50	1.32
Area of residence:			
Inside metropolitan area	79,884	40.00	1.42
In central city ⁴	24,742	40.00	1.43
Not in central city ⁴	40,921	40.00	1.45
Outside metropolitan area	19,499	32.50	1.17
Census geographic region:			
Northeast	18,572	40.00	1.41
Midwest	23,633	36.70	1.32
South	35,393	37.50	1.32
West	21,785	40.00	1.47

¹Totals exclude households that did not answer the questions about spending on food. These represent 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.

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 September 2000 Current Population Survey Food Security Supplement.

Food Expenditures and Household Food Security

Spending on food was generally associated with 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 1.41 among food-secure households, compared with 1.06 among households classified as food insecure without hunger and 0.98 among those classified as food insecure with hunger (table 8). Thus, the typical food-secure household spent 44 percent more for food than the typical household of the same size and composition that was food insecure with hunger. Fewer than half of the households that were food insecure with hunger spent, on a usual basis, enough on food to provide household members with the low-cost meals specified in the Thrifty Food Plan.

The relationship between food expenditures and food security was also consistent across household structure, race/ethnicity, income, metropolitan residence, and geographic region (table 9). For food-secure households, median food spending for every household type was above the cost of the Thrifty Food Plan—the lowest being 1.05 for households with incomes below the poverty threshold. Furthermore, for every household type, median food spending relative to the Thrifty Food Plan was higher for food-secure than food-insecure households and higher for food-insecure households without hunger than for food-insecure households with hunger. Not all of these differences were statistically significant, but the associations were consistently in the direction expected.

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—both women and men—spent much more on food than the cost of the Thrifty Food Plan for their age and gender—24 percent more for women living alone and 31 percent more for men living alone. For men living alone, this higher-than-expected food spending was observed even for those classified as food insecure with hunger. Food-insecure households (both with and without hunger) with incomes above 1.85 times the poverty line also registered median food expenditures much higher than the national median.¹³

For households registering food insecurity with hunger, median food spending relative to the Thrifty Food Plan was lower than the national median for female-headed families with children (0.87) and for households with income below the poverty line (0.90).¹⁴

¹³Analysis 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.

¹⁴To a substantial extent, these were the same households. Among households classified as food insecure with hunger, two-thirds of the female-headed families with children had income below the poverty line, and one-third of those with income below the poverty line were female-headed families with children. Their lower level of food expenditure reflects the more severe, more frequent, and longer lasting hunger experiences of these households (Nord et al., 2000).

Table 8—Weekly household food spending relative to the cost of the Thrifty Food Plan (TFP) by food security status, 2000

Category	Median weekly food spending		
	Total ¹	Per person <i>Dollars</i>	Relative to TFP
All households	99,383	37.50	1.36
Food security status:			
Food secure	88,627	40.00	1.41
Food insecure	10,562	27.50	1.04
Without hunger	7,408	28.00	1.06
With hunger	3,154	27.50	.98

¹Total for all households excludes households that did not answer the questions about spending on food. These represent 6.6 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 September 2000 Current Population Survey Food Security Supplement.

Table 9—Weekly household food spending relative to the cost of the Thrifty Food Plan (TFP) by food security status and selected household characteristics, 2000

Category	Total ¹ 1,000	Food secure	Median weekly food spending relative to TFP		
			Food insecure:		
			All	Without hunger	With hunger
			<i>Ratio</i>		
All households	99,189	1.41	1.04	1.06	0.98
Household composition:					
With children < 18	36,352	1.27	.99	1.01	.94
At least one child < 6	16,530	1.26	1.01	1.02	.94
Married-couple families	25,248	1.29	1.02	1.02	1.01
Female head, no spouse	8,578	1.20	.95	.97	.87
Male head, no spouse	1,974	1.22	1.05	1.02	NA
Other household with child ²	552	1.29	NA	NA	NA
With no children < 18	62,838	1.50	1.14	1.18	1.04
More than one adult	37,646	1.42	1.06	1.11	.96
Women living alone	14,699	1.56	1.24	1.30	1.04
Men living alone	10,493	1.76	1.31	1.39	1.28
With elderly	22,395	1.30	.98	1.01	.98
Elderly living alone	8,896	1.30	1.14	1.14	NA
Race/ethnicity of households:					
White non-Hispanic	74,745	1.45	1.09	1.13	.99
Black non-Hispanic	11,746	1.21	1.00	1.02	.98
Hispanic ³	8,925	1.27	.99	.99	.98
Other non-Hispanic	3,773	1.37	1.01	1.02	NA
Household income-to-poverty ratio:					
Under 1.00	11,483	1.05	.95	.96	.90
Under 1.30	16,706	1.08	.96	.98	.92
Under 1.85	24,601	1.11	.96	.98	.94
1.85 and over	60,658	1.54	1.32	1.32	1.31
Income unknown	13,931	1.33	.98	1.00	NA
Area of residence:					
Inside metropolitan area	79,713	1.46	1.08	1.12	1.01
In central city ⁴	24,676	1.49	1.08	1.09	1.08
Not in central city ⁴	40,854	1.48	1.10	1.14	.98
Outside metropolitan area	19,476	1.21	.96	.96	.89
Census geographic region:					
Northeast	18,503	1.45	1.02	1.03	.98
Midwest	23,599	1.33	1.03	1.04	1.02
South	35,333	1.37	1.01	1.04	.96
West	21,754	1.53	1.14	1.15	1.02

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

¹Totals exclude households that did not answer the questions about spending on food. These represent 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.

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 September 2000 Current Population Survey Food Security Supplement.