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Statistical Supplement to Household Food Security in the United States in 2016

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Note to Readers

This Supplement provides statistics that complement those in *Household Food Security in the United States in 2016* (ERR-237). That research report provides the primary national statistics on household food security, food spending, and use of Federal food and nutrition assistance programs by food-insecure households. The Supplement provides additional statistics on component items of the household food security measure, the frequency of occurrence of food-insecure conditions, and selected statistics on household food security, food spending, and use of Federal and community food and nutrition assistance programs.

Keywords: Food security, food insecurity, food spending, food pantry, soup kitchen, emergency kitchen, material well-being, SNAP, Food Stamp Program, National School Lunch Program, WIC

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Statistical Supplement to Household Food Security in the United States in 2016

Introduction

This supplement provides statistics on component items of the household food security measure, the frequency of occurrence of food-insecure conditions, and selected statistics on household food security, food spending, and use of Federal and community food and nutrition assistance programs. It complements *Household Food Security in the United States in 2016* (ERR-237), which provides the primary national statistics on household food security, food spending, and use of Federal food and nutrition assistance programs by food-insecure households.

The statistics presented here are based on data collected in the Current Population Survey (CPS) Food Security Supplement conducted in December 2016. Information about the survey, data, and methods are available in *Household Food Security in the United States in 2016*. All statistics were calculated by applying the Food Security Supplement weights to responses of the surveyed households to obtain nationally representative prevalence estimates. Unless otherwise noted, statistical differences described in the text are significant at the 90-percent confidence level.¹

¹Standard errors of estimates were calculated using balanced repeated replication (BRR) methods based on replicate weights computed for the Supplement by the U.S. Census Bureau.

Food Insecurity in Low-Income Households

Table S-1 presents food security statistics for households with annual incomes below 130 percent of the poverty line.² Food insecurity is by definition a condition that results from insufficient household resources. However, many factors that might affect a household's food security (such as job loss, divorce, or other unexpected events) are not captured by an annual income measure. Some households experienced episodes of food insecurity, or even very low food security, even though their annual incomes were well above the poverty line (Nord and Brent, 2002; Gundersen and Gruber, 2001). On the other hand, many low-income households manage to remain food secure. In 2016, 64.3 percent of households with incomes below 130 percent of the poverty line were food secure, while 35.7 percent were food insecure.

²The Federal poverty line was \$24,339 annual income for a family of four in 2016 (two adults and two children). Households with monthly income below 130 percent of the poverty line are eligible to receive SNAP benefits, provided they meet other eligibility criteria. Children were eligible for free meals in the National School Lunch and School Breakfast Programs if household income was determined to be at or below 130 percent of poverty.

Table S-1

Households with annual income below 130 percent of the poverty line by food security status and selected household characteristics, 2016

| Category | Total ¹ | Food secure | | Food insecure | | | | | |
|---|--------------------|-------------|---------|---------------|---------|------------------------|---------|-----------------------------|---------|
| | | | | All | | With low food security | | With very low food security | |
| | 1,000 | 1,000 | Percent | 1,000 | Percent | 1,000 | Percent | 1,000 | Percent |
| All low-income households | 18,522 | 11,917 | 64.3 | 6,605 | 35.7 | 3,725 | 20.1 | 2,880 | 15.5 |
| Household composition: | | | | | | | | | |
| With children < 18 yrs | 7,467 | 4,427 | 59.3 | 3,040 | 40.7 | 2,032 | 27.2 | 1,008 | 13.5 |
| With children < 6 yrs | 3,764 | 2,351 | 62.5 | 1,413 | 37.5 | 923 | 24.5 | 490 | 13.0 |
| Married-couple families | 2,805 | 1,884 | 67.2 | 921 | 32.8 | 628 | 22.4 | 293 | 10.4 |
| Female head, no spouse | 3,705 | 1,970 | 53.2 | 1,735 | 46.8 | 1,113 | 30.0 | 622 | 16.8 |
| Male head, no spouse | 809 | 484 | 59.8 | 325 | 40.2 | 252 | 31.1 | 73 | 9.0 |
| Other household with child ² | 149 | 89 | 59.7 | 60 | 40.3 | NA | NA | NA | NA |
| With no children < 18 yrs | 11,054 | 7,490 | 67.8 | 3,564 | 32.2 | 1,693 | 15.3 | 1,871 | 16.9 |
| More than one adult | 4,335 | 3,042 | 70.2 | 1,293 | 29.8 | 651 | 15.0 | 642 | 14.8 |
| Women living alone | 3,934 | 2,695 | 68.5 | 1,239 | 31.5 | 576 | 14.6 | 663 | 16.9 |
| Men living alone | 2,785 | 1,753 | 62.9 | 1,032 | 37.1 | 466 | 16.7 | 566 | 20.3 |
| With elderly | 4,741 | 3,554 | 75.0 | 1,187 | 25.0 | 697 | 14.7 | 490 | 10.3 |
| Elderly living alone | 2,569 | 1,986 | 77.3 | 583 | 22.7 | 338 | 13.2 | 245 | 9.5 |
| Race/ethnicity of households: | | | | | | | | | |
| White, non-Hispanic | 8,643 | 5,714 | 66.1 | 2,929 | 33.9 | 1,501 | 17.4 | 1,428 | 16.5 |
| Black, non-Hispanic | 3,979 | 2,274 | 57.2 | 1,705 | 42.8 | 952 | 23.9 | 753 | 18.9 |
| Hispanic ³ | 4,286 | 2,770 | 64.6 | 1,516 | 35.4 | 1,011 | 23.6 | 505 | 11.8 |
| Other, non-Hispanic | 1,614 | 1,159 | 71.8 | 455 | 28.2 | 261 | 16.2 | 194 | 12.0 |
| Area of residence: ⁴ | | | | | | | | | |
| Inside metropolitan area | 14,814 | 9,595 | 64.8 | 5,219 | 35.2 | 3,013 | 20.3 | 2,206 | 14.9 |
| In principal cities ⁵ | 6,556 | 4,176 | 63.7 | 2,380 | 36.3 | 1,345 | 20.5 | 1,035 | 15.8 |
| Not in principal cities | 5,684 | 3,803 | 66.9 | 1,881 | 33.1 | 1,125 | 19.8 | 756 | 13.3 |
| Outside metropolitan area | 3,708 | 2,321 | 62.6 | 1,387 | 37.4 | 713 | 19.2 | 674 | 18.2 |
| Census geographic region: | | | | | | | | | |
| Northeast | 2,696 | 1,754 | 65.1 | 942 | 34.9 | 591 | 21.9 | 351 | 13.0 |
| Midwest | 3,832 | 2,448 | 63.9 | 1,384 | 36.1 | 712 | 18.6 | 672 | 17.5 |
| South | 7,889 | 4,986 | 63.2 | 2,903 | 36.8 | 1,612 | 20.4 | 1,291 | 16.4 |
| West | 4,106 | 2,730 | 66.5 | 1,376 | 33.5 | 811 | 19.8 | 565 | 13.8 |

NA = Not reported; fewer than 10 households in the survey with this characteristic had very low food security.

¹Totals exclude households for which income was not reported (about 23 percent of households) and those for which food security status is unknown because they did not give a valid response to any of the questions in the food security scale (0.9 percent of low-income 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 residence is based on 2013 Office of Management and Budget delineation. Prevalence rates by area of residence are comparable with those for 2014 and 2015 but are not precisely comparable with those of earlier years.

⁵Households within incorporated areas of the largest cities in each metropolitan area. Residence inside or outside of principal cities is not identified for about 17 percent of low-income households in metropolitan statistical areas.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, U.S. Census Bureau, 2016 Current Population Survey Food Security Supplement.

Number of Persons by Household Food Security Status and Selected Household Characteristics

The food security survey is designed to measure food security status at the household level. While it is informative to examine the number of persons residing in food-insecure households, these statistics should be interpreted carefully (see tables S-2 for individuals and S-3 for children). Within a food-insecure household, different household members may have been affected differently by the household's food insecurity. Some members—particularly young children—may have experienced only mild effects or none at all, while adults were more severely affected. It is more precise, therefore, to describe these statistics as representing “persons living in food-insecure households” rather than as representing “food-insecure persons.” Similarly, “persons living in households with very low food security” is a more precise description than “persons with very low food security.”

Table S-2

Number of individuals by food security status of households and selected household characteristics, 2016

| Category | Total ¹ | In food-insecure households | | | | | | | |
|---|--------------------|-----------------------------|---------|--------|---------|--------------------------------------|---------|---|---------|
| | | In food-secure households | | All | | In households with low food security | | In households with very low food security | |
| | | 1,000 | Percent | 1,000 | Percent | 1,000 | Percent | 1,000 | Percent |
| All individuals in households | 319,029 | 277,825 | 87.1 | 41,204 | 12.9 | 26,556 | 8.3 | 14,648 | 4.6 |
| Household composition: | | | | | | | | | |
| With children < 18 yrs | 158,225 | 132,407 | 83.7 | 25,818 | 16.3 | 18,170 | 11.5 | 7,648 | 4.8 |
| With children < 6 yrs | 72,136 | 59,615 | 82.6 | 12,521 | 17.4 | 8,550 | 11.9 | 3,971 | 5.5 |
| Married-couple families | 109,015 | 97,539 | 89.5 | 11,476 | 10.5 | 8,447 | 7.7 | 3,029 | 2.8 |
| Female head, no spouse | 35,633 | 24,342 | 68.3 | 11,291 | 31.7 | 7,414 | 20.8 | 3,877 | 10.9 |
| Male head, no spouse | 11,410 | 8,833 | 77.4 | 2,577 | 22.6 | 1,941 | 17.0 | 636 | 5.6 |
| Other household with child ² | 2,167 | 1,693 | 78.1 | 474 | 21.9 | 367 | 16.9 | 107 | 4.9 |
| With no children < 18 yrs | 160,805 | 145,420 | 90.4 | 15,385 | 9.6 | 8,386 | 5.2 | 6,999 | 4.4 |
| More than one adult | 125,156 | 114,788 | 91.7 | 10,368 | 8.3 | 5,887 | 4.7 | 4,481 | 3.6 |
| Women living alone | 19,649 | 16,910 | 86.1 | 2,739 | 13.9 | 1,420 | 7.2 | 1,319 | 6.7 |
| Men living alone | 15,999 | 13,719 | 85.7 | 2,280 | 14.3 | 1,080 | 6.8 | 1,200 | 7.5 |
| With elderly | 73,220 | 66,960 | 91.5 | 6,260 | 8.5 | 4,160 | 5.7 | 2,100 | 2.9 |
| Elderly living alone | 13,529 | 12,326 | 91.1 | 1,203 | 8.9 | 733 | 5.4 | 470 | 3.5 |
| Race/ethnicity of households: | | | | | | | | | |
| White, non-Hispanic | 200,679 | 181,531 | 90.5 | 19,148 | 9.5 | 11,948 | 6.0 | 7,200 | 3.6 |
| Black, non-Hispanic | 38,831 | 30,163 | 77.7 | 8,668 | 22.3 | 5,279 | 13.6 | 3,389 | 8.7 |
| Hispanic ³ | 54,026 | 43,457 | 80.4 | 10,569 | 19.6 | 7,523 | 13.9 | 3,046 | 5.6 |
| Other, non-Hispanic | 25,493 | 22,674 | 88.9 | 2,819 | 11.1 | 1,806 | 7.1 | 1,013 | 4.0 |
| Household income-to-poverty ratio: | | | | | | | | | |
| Under 1.00 | 36,672 | 22,313 | 60.8 | 14,359 | 39.2 | 8,433 | 23.0 | 5,926 | 16.2 |
| Under 1.30 | 49,396 | 31,507 | 63.8 | 17,889 | 36.2 | 10,758 | 21.8 | 7,131 | 14.4 |
| Under 1.85 | 78,022 | 53,249 | 68.2 | 24,773 | 31.8 | 15,430 | 19.8 | 9,343 | 12.0 |
| 1.85 and over | 168,690 | 159,466 | 94.5 | 9,224 | 5.5 | 6,479 | 3.8 | 2,745 | 1.6 |
| Income unknown | 72,317 | 65,110 | 90.0 | 7,207 | 10.0 | 4,647 | 6.4 | 2,560 | 3.5 |
| Area of residence: ⁴ | | | | | | | | | |
| Inside metropolitan area | 275,259 | 240,857 | 87.5 | 34,402 | 12.5 | 22,483 | 8.2 | 11,919 | 4.3 |
| In principal cities ⁵ | 90,691 | 76,903 | 84.8 | 13,788 | 15.2 | 8,730 | 9.6 | 5,058 | 5.6 |
| Not in principal cities | 143,601 | 129,062 | 89.9 | 14,539 | 10.1 | 9,688 | 6.7 | 4,851 | 3.4 |
| Outside metropolitan area | 43,770 | 36,968 | 84.5 | 6,802 | 15.5 | 4,073 | 9.3 | 2,729 | 6.2 |
| Census geographic region: | | | | | | | | | |
| Northeast | 55,709 | 49,750 | 89.3 | 5,959 | 10.7 | 4,219 | 7.6 | 1,740 | 3.1 |
| Midwest | 67,060 | 58,904 | 87.8 | 8,156 | 12.2 | 4,774 | 7.1 | 3,382 | 5.0 |
| South | 120,418 | 103,007 | 85.5 | 17,411 | 14.5 | 11,047 | 9.2 | 6,364 | 5.3 |
| West | 75,842 | 66,164 | 87.2 | 9,678 | 12.8 | 6,516 | 8.6 | 3,162 | 4.2 |

¹Totals exclude individuals in households for which food security status is unknown because they did not give a valid response to any of the questions in the food security scale. In 2016, these exclusions represented about 871,000 individuals (0.3 percent of the U.S. population).

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 residence is based on 2013 Office of Management and Budget delineation. Prevalence rates by area of residence are comparable with those for 2014 and 2015 but are not precisely comparable with those of earlier years.

⁵Households within incorporated areas of the largest cities in each metropolitan area. Residence inside or outside of principal cities is not identified for about 15 percent of individuals living in metropolitan statistical areas.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, U.S. Census Bureau, 2016 Current Population Survey Food Security Supplement.

Table S-3

Number of children by food security status of households and selected household characteristics, 2016

| Category | Total ¹ | In food-secure households | | In food-insecure households ² | | In households with food-insecure children ³ | | In households with very low food security among children | |
|---|--------------------|---------------------------|---------|--|---------|--|---------|--|---------|
| | | 1,000 | Percent | 1,000 | Percent | 1,000 | Percent | 1,000 | Percent |
| All children | 73,829 | 60,891 | 82.5 | 12,938 | 17.5 | 6,519 | 8.8 | 703 | 1.0 |
| Household composition: | | | | | | | | | |
| With children < 6 yrs | 35,984 | 29,311 | 81.5 | 6,673 | 18.5 | 3,394 | 9.4 | 384 | 1.1 |
| Married-couple families | 49,279 | 43,874 | 89.0 | 5,405 | 11.0 | 2,681 | 5.4 | 289 | .6 |
| Female head, no spouse | 18,570 | 12,430 | 66.9 | 6,140 | 33.1 | 3,231 | 17.4 | 372 | 2.0 |
| Male head, no spouse | 5,171 | 3,976 | 76.9 | 1,195 | 23.1 | 523 | 10.1 | NA | NA |
| Other household with child ⁴ | 809 | 612 | 75.6 | 197 | 24.4 | 84 | 10.4 | NA | NA |
| Race/ethnicity of households: | | | | | | | | | |
| White, non-Hispanic | 41,182 | 35,733 | 86.8 | 5,449 | 13.2 | 2,498 | 6.1 | 214 | .5 |
| Black, non-Hispanic | 10,386 | 7,727 | 74.4 | 2,659 | 25.6 | 1,400 | 13.5 | 216 | 2.1 |
| Hispanic ⁵ | 16,327 | 12,366 | 75.7 | 3,961 | 24.3 | 2,175 | 13.3 | 230 | 1.4 |
| Other, non-Hispanic | 5,933 | 5,064 | 85.4 | 869 | 14.6 | 447 | 7.5 | NA | NA |
| Household income-to-poverty ratio: | | | | | | | | | |
| Under 1.00 | 12,532 | 7,253 | 57.9 | 5,279 | 42.1 | 2,973 | 23.7 | 412 | 3.3 |
| Under 1.30 | 16,422 | 9,975 | 60.7 | 6,447 | 39.3 | 3,629 | 22.1 | 443 | 2.7 |
| Under 1.85 | 24,801 | 16,204 | 65.3 | 8,597 | 34.7 | 4,610 | 18.6 | 527 | 2.1 |
| 1.85 and over | 34,962 | 32,784 | 93.8 | 2,178 | 6.2 | 916 | 2.6 | NA | NA |
| Income unknown | 14,065 | 11,902 | 84.6 | 2,163 | 15.4 | 993 | 7.1 | NA | NA |
| Area of residence: ⁶ | | | | | | | | | |
| Inside metropolitan area | 63,809 | 52,971 | 83.0 | 10,838 | 17.0 | 5,408 | 8.5 | 631 | 1.0 |
| In principal cities ⁷ | 20,538 | 16,264 | 79.2 | 4,274 | 20.8 | 2,171 | 10.6 | 365 | 1.8 |
| Not in principal cities | 33,815 | 29,142 | 86.2 | 4,673 | 13.8 | 2,401 | 7.1 | 157 | .5 |
| Outside metropolitan area | 10,020 | 7,920 | 79.0 | 2,100 | 21.0 | 1,111 | 11.1 | 72 | .7 |
| Census geographic region: | | | | | | | | | |
| Northeast | 11,794 | 10,006 | 84.8 | 1,788 | 15.2 | 834 | 7.1 | 96 | .8 |
| Midwest | 15,540 | 13,055 | 84.0 | 2,485 | 16.0 | 1,397 | 9.0 | 113 | .7 |
| South | 28,605 | 22,997 | 80.4 | 5,608 | 19.6 | 2,692 | 9.4 | 328 | 1.1 |
| West | 17,889 | 14,833 | 82.9 | 3,056 | 17.1 | 1,596 | 8.9 | 166 | .9 |

NA = Not reported; fewer than 10 households in the survey with this characteristic had very low food security among children.

¹Totals exclude households for which food security status is unknown because they did not give a valid response to any of the questions in the food security scale. In 2016, these exclusions represented 166,000 children (0.2 percent).

²Food-insecure households are those with low or very low food security among adults or children or both.

³Households with food-insecure children are those with low or very low food security among children.

⁴Households with children in complex living arrangements, e.g., children of other relatives or unrelated roommate or boarder.

⁵Hispanics may be of any race.

⁶Metropolitan area residence is based on 2013 Office of Management and Budget delineation. Prevalence rates by area of residence are comparable with those for 2014 and 2015 but are not precisely comparable with those of earlier years.

⁷Households within incorporated areas of the largest cities in each metropolitan area. Residence inside or outside of principal cities is not identified for about 15 percent of children living in metropolitan statistical areas.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, U.S. Census Bureau, 2016 Current Population Survey Food Security Supplement.

Food Security During the 30 Days Prior to the Food Security Survey

The annual food security survey was designed with the primary objective of assessing households' food security during the 12-month period prior to the survey, but information is also collected with reference to the 30-day period prior to the survey. Households that responded affirmatively to each 12-month question were asked whether the same behavior, experience, or condition occurred during the last 30 days. Responses to these questions were used to assess the food security status of households during the 30 days prior to the survey, following the same protocols that were used for the 12-month measure. The 30-day food security measurement protocol was revised in 2005, so 30-day statistics for 2016 are directly comparable with those for 2005 and later years, but not with those reported for 2004 and earlier years.

An estimated 93.3 percent of households were food secure throughout the 30-day period from mid-November to mid-December 2016 (table S-4).³ An estimated 6.7 percent (8.5 million households) were food insecure at some time during that 30-day period, including 2.8 percent (3.6 million) with very low food security. The national-level prevalence rates of food insecurity and very low food security were essentially unchanged from the corresponding 30-day period in 2015 (7.0 percent and 2.9 percent, respectively; see Coleman-Jensen et al., 2016). However, there were a few statistically significant changes in prevalence rates for some subpopulations. From 2015 to 2016, 30-day food insecurity declined for households headed by White, non-Hispanic adults, households in suburban areas, and in the Northeast. During this same time period, 30-day very low food security declined for single-father families and in suburban areas, while increasing for households headed by Black, non-Hispanic adults.

The number of households that were food insecure at some time during the 30 days from mid-November to mid-December 2016 (8,458,000 households; table S-4) was 54 percent of the number that were food insecure at some time during the 12 months prior to the survey (15,551,000 households; Coleman-Jensen et al., 2017); the corresponding statistic for very low food security was 58 percent. If food insecurity during this 30-day period was similar to that for other 30-day periods throughout the year, then these comparisons imply that the average household that was food insecure at some time during the year experienced this condition in 7 months of the year. Likewise, the average household with very low food security experienced that condition in 7 months of the year.⁴ However, analysis of food insecurity in different months suggests that food insecurity is somewhat more prevalent in the summer months (July-September) than in March-April and November-December (Cohen et al., 2002; Nord and Romig, 2006; Nord and Kantor, 2006), so typical frequencies may be somewhat higher than the 7 months implied by the December data.

³The food security survey was conducted December 11-20, 2016.

⁴The number of months is estimated as the monthly rate divided by the annual rate multiplied by 12.

Table S-4

Households by food security status during the 30 days prior to the food security survey and selected household characteristics, 2016¹

| Category | Total ¹ | Food insecure | | | | | | | |
|---|--------------------|---------------|---------|-------|---------|------------------------|---------|-----------------------------|---------|
| | | Food secure | | All | | With low food security | | With very low food security | |
| | | 1,000 | Percent | 1,000 | Percent | 1,000 | Percent | 1,000 | Percent |
| All households | 126,401 | 117,943 | 93.3 | 8,458 | 6.7 | 4,902 | 3.9 | 3,556 | 2.8 |
| Household composition: | | | | | | | | | |
| With children < 18 yrs | 38,400 | 35,065 | 91.3 | 3,335 | 8.7 | 2,309 | 6.0 | 1,026 | 2.7 |
| With children < 6 yrs | 16,571 | 15,108 | 91.2 | 1,463 | 8.8 | 999 | 6.0 | 464 | 2.8 |
| Married-couple families | 25,031 | 23,801 | 95.1 | 1,230 | 4.9 | 869 | 3.5 | 361 | 1.4 |
| Female head, no spouse | 9,780 | 8,076 | 82.6 | 1,704 | 17.4 | 1,130 | 11.5 | 574 | 5.9 |
| Male head, no spouse | 3,070 | 2,732 | 89.0 | 338 | 11.0 | 274 | 8.9 | 64 | 2.1 |
| Other household with child ² | 519 | 456 | 87.9 | 63 | 12.1 | NA | NA | NA | NA |
| With no children < 18 yrs | 88,001 | 82,878 | 94.2 | 5,123 | 5.8 | 2,593 | 2.9 | 2,530 | 2.9 |
| More than one adult | 52,353 | 50,022 | 95.5 | 2,331 | 4.5 | 1,298 | 2.5 | 1,033 | 2.0 |
| Women living alone | 19,649 | 18,110 | 92.2 | 1,539 | 7.8 | 759 | 3.8 | 780 | 4.0 |
| Men living alone | 15,999 | 14,747 | 92.2 | 1,252 | 7.8 | 535 | 3.3 | 717 | 4.5 |
| With elderly | 36,335 | 34,807 | 95.8 | 1,528 | 4.2 | 951 | 2.6 | 577 | 1.6 |
| Elderly living alone | 13,529 | 12,945 | 95.7 | 584 | 4.3 | 312 | 2.3 | 272 | 2.0 |
| Race/ethnicity of households: | | | | | | | | | |
| White, non-Hispanic | 84,087 | 79,834 | 94.9 | 4,253 | 5.1 | 2,342 | 2.8 | 1,911 | 2.3 |
| Black, non-Hispanic | 15,940 | 13,890 | 87.1 | 2,050 | 12.9 | 1,170 | 7.4 | 880 | 5.5 |
| Hispanic ³ | 17,054 | 15,353 | 90.0 | 1,701 | 10.0 | 1,112 | 6.5 | 589 | 3.5 |
| Other, non-Hispanic | 9,319 | 8,865 | 95.1 | 454 | 4.9 | 278 | 3.0 | 176 | 1.9 |
| Household income-to-poverty ratio: | | | | | | | | | |
| Under 1.00 | 13,929 | 10,699 | 76.8 | 3,230 | 23.2 | 1,745 | 12.5 | 1,485 | 10.7 |
| Under 1.30 | 18,522 | 14,640 | 79.0 | 3,882 | 21.0 | 2,096 | 11.4 | 1,786 | 9.6 |
| Under 1.85 | 29,025 | 23,810 | 82.0 | 5,215 | 18.0 | 2,912 | 10.1 | 2,303 | 7.9 |
| 1.85 and over | 67,785 | 65,960 | 97.3 | 1,825 | 2.7 | 1,150 | 1.7 | 675 | 1.0 |
| Income unknown | 29,590 | 28,172 | 95.2 | 1,418 | 4.8 | 840 | 2.8 | 578 | 2.0 |
| Area of residence: ⁴ | | | | | | | | | |
| Inside metropolitan area | 108,118 | 101,195 | 93.6 | 6,923 | 6.4 | 4,109 | 3.8 | 2,814 | 2.6 |
| In principal cities ⁵ | 37,176 | 34,302 | 92.3 | 2,874 | 7.7 | 1,670 | 4.5 | 1,204 | 3.2 |
| Not in principal cities | 54,399 | 51,543 | 94.7 | 2,856 | 5.3 | 1,781 | 3.3 | 1,075 | 2.0 |
| Outside metropolitan area | 18,283 | 16,749 | 91.6 | 1,534 | 8.4 | 792 | 4.3 | 742 | 4.1 |
| Census geographic region: | | | | | | | | | |
| Northeast | 22,669 | 21,465 | 94.7 | 1,204 | 5.3 | 723 | 3.2 | 481 | 2.1 |
| Midwest | 27,307 | 25,461 | 93.2 | 1,846 | 6.8 | 1,057 | 3.9 | 789 | 2.9 |
| South | 47,966 | 44,405 | 92.6 | 3,561 | 7.4 | 2,029 | 4.2 | 1,532 | 3.2 |
| West | 28,458 | 26,613 | 93.5 | 1,845 | 6.5 | 1,092 | 3.9 | 753 | 2.6 |

NA = Not reported; fewer than 10 households in the survey with this characteristic had very low food security within the past 30 days.

¹The 30-day prevalence rates refer to the 30-day period from mid-November to mid-December; the survey was conducted during the week of December 11-20, 2016. Totals exclude households for which food security status is unknown because they did not give a valid response to any of the questions in the 30-day food security scale. In 2016, these exclusions represented 408,000 households (0.3 percent of all households.) The 30-day statistics for 2004 and earlier years were based on a different methodology and are not comparable with these statistics.

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 residence is based on 2013 Office of Management and Budget delineation. Prevalence rates by area of residence are comparable with those for 2014 and 2015 but are not precisely comparable with those of earlier years.

⁵Households within incorporated areas of the largest cities in each metropolitan area. Residence inside or outside of principal cities is not identified for about 15 percent of households in metropolitan statistical areas.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, U.S. Census Bureau, 2016 Current Population Survey Food Security Supplement.

Household Responses to Questions in the Food Security Scale

The 18 questions used for the food security measure ask about conditions, experiences, and behaviors that range widely in severity (items near the top of the lists in Table S-5 are relatively less severe, while those nearer the bottom are more severe). Those indicating less severe food insecurity are observed in a larger proportion of households, and the proportion declines as severity increases (table S-5). The two least severe questions refer to uncertainty about having enough food and the experience of running out of food. The remaining 16 items indicate reduced quality, variety, or desirability of diets and increasingly severe disruptions of normal eating patterns and reductions in food intake. (See page 12 for the complete wording of these questions.) Three or more affirmative responses are required for a household to be classified as food insecure. Thus, all households in that category affirmed at least one item indicating reduced diet quality or disruption of normal eating patterns or reduction in food intake, and most food-insecure households reported multiple indicators of these conditions (table S-6).

A large majority of households (73.3 percent of households with children and 83.0 percent of those without children) reported no problems or concerns in meeting their food needs. Households that reported only one or two indications of food insecurity (10.2 percent of households with children and 6.6 percent of households without children) are also classified as food secure. Most of these households affirmed one or both of the first two items, indicating uncertainty about having enough food or about exhausting their food supply, but did not indicate actual disruptions of normal eating patterns or reductions in food intake. Although these households are classified as food secure, the food security of some of them may have been marginal at times, especially in the sense that they lacked “assured ability to acquire acceptable foods in socially acceptable ways,” a condition that the Life Sciences Research Office includes in its definition of food security (Anderson, 1990, p. 1,598).⁵ Research examining health and children’s development in these marginally food-secure households generally indicates that outcomes are either intermediate between those in highly food-secure and food-insecure households or more closely resemble those in food-insecure households (Radimer and Nord, 2005; Winicki and Jemison, 2003; Wilde and Peterman, 2006).

⁵The Life Sciences Research Office (LSRO) is a nonprofit organization based in Bethesda, MD. Concepts and definitions of food security and related conditions developed by LSRO for the American Institute of Nutrition (Anderson, 1990) provided key parts of the theoretical underpinnings of the household food security measure.

Table S-5

Responses to items in the food security scale, 2013-16 ¹

| Scale item ² | Households affirming item ³ | | | |
|--|--|------|------|------|
| | 2013 | 2014 | 2015 | 2016 |
| | <i>Percent</i> | | | |
| Household items: | | | | |
| Worried food would run out before (I/we) got money to buy more | 18.9 | 18.7 | 17.0 | 16.2 |
| Food bought didn't last and (I/we) didn't have money to get more | 15.6 | 15.5 | 14.1 | 13.3 |
| Couldn't afford to eat balanced meals | 14.8 | 14.8 | 13.8 | 12.9 |
| Adult items: | | | | |
| Adult(s) cut size of meals or skipped meals | 8.7 | 8.7 | 7.8 | 7.5 |
| Respondent ate less than felt he/she should | 8.9 | 8.8 | 7.9 | 7.7 |
| Adult(s) cut size or skipped meals in 3 or more months | 6.7 | 6.7 | 6.0 | 5.7 |
| Respondent hungry but didn't eat because couldn't afford | 4.5 | 4.8 | 4.2 | 4.0 |
| Respondent lost weight | 2.9 | 2.8 | 2.5 | 2.4 |
| Adult(s) did not eat for whole day | 1.7 | 1.7 | 1.6 | 1.7 |
| Adult(s) did not eat for whole day in 3 or more months | 1.3 | 1.3 | 1.2 | 1.3 |
| Child items: | | | | |
| Relied on few kinds of low-cost food to feed child(ren) | 16.4 | 15.5 | 13.6 | 13.0 |
| Couldn't feed child(ren) balanced meals | 10.0 | 9.9 | 8.4 | 8.3 |
| Child(ren) were not eating enough | 4.4 | 4.5 | 3.6 | 3.6 |
| Cut size of child(ren)'s meals | 2.3 | 2.2 | 1.7 | 1.7 |
| Child(ren) were hungry | 1.3 | 1.4 | .9 | 1.0 |
| Child(ren) skipped meals | .8 | .8 | .6 | .6 |
| Child(ren) skipped meals in 3 or more months | .5 | .6 | .5 | .5 |
| Child(ren) did not eat for whole day | .2 | .2 | .1 | .1 |

¹Survey responses weighted to population totals.

²The full wording of each question includes explicit reference to resource limitation, e.g., "... because (I was/we were) running out of money to buy food" or "... because there wasn't enough money for food." (See box on page 12 for the complete wording of these questions.)

³Households not responding to an item are omitted from the calculations of percentages for that item. Households without children are omitted from the calculation of child-referenced items.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, U.S. Census Bureau, Current Population Survey Food Security Supplement.

Table S-6

Percentage of households by food security raw score, 2016

| Panel A: Households with children—18-item household food security scale | | | | |
|--|------------------------------------|--|--|--|
| Raw score (number of food-insecure conditions reported) | Percent of households ¹ | Cumulative percent of households ¹ | Food security status | |
| 0 | 73.28 | 73.28 | Food secure (83.49 percent) | |
| 1 | 6.04 | 79.32 | | |
| 2 | 4.17 | 83.49 | | |
| 3 | 3.66 | 87.15 | Low food security (11.72 percent) | |
| 4 | 2.76 | 89.91 | | |
| 5 | 2.16 | 92.07 | | |
| 6 | 1.88 | 93.95 | | |
| 7 | 1.26 | 95.21 | | |
| 8 | 1.30 | 96.51 | Very low food security (4.79 percent) | |
| 9 | .97 | 97.48 | | |
| 10 | .83 | 98.31 | | |
| 11 | .47 | 98.78 | | |
| 12 | .44 | 99.22 | | |
| 13 | .24 | 99.46 | | |
| 14 | .24 | 99.70 | | |
| 15 | .17 | 99.87 | | |
| 16 | .01 | 99.88 | | |
| 17 | .06 | 99.94 | | |
| 18 | .06 | 100.00 | | |
| Panel B: Households with children—8-item child food security scale | | | | |
| 0 | 85.42 | 85.42 | Children food secure (92.01 percent) | |
| 1 | 6.59 | 92.01 | Low food security among children (7.21 percent) | |
| 2 | 4.45 | 96.46 | | |
| 3 | 1.95 | 98.41 | | |
| 4 | .81 | 99.22 | Very low food security among children (0.78 percent) | |
| 5 | .40 | 99.62 | | |
| 6 | .12 | 99.74 | | |
| 7 | .17 | 99.91 | | |
| 8 | .09 | 100.00 | | |
| Panel C: Households with no children—10-item adult food security scale | | | | |
| 0 | 82.98 | 82.98 | Food secure (89.54 percent) | |
| 1 | 3.68 | 86.66 | | |
| 2 | 2.88 | 89.54 | | |
| 3 | 2.89 | 92.43 | Low food security (5.58 percent) | |
| 4 | 1.32 | 93.75 | | |
| 5 | 1.37 | 95.12 | | |
| 6 | 1.64 | 96.76 | Very low food security (4.88 percent) | |
| 7 | 1.27 | 98.03 | | |
| 8 | .86 | 98.89 | | |
| 9 | .41 | 99.30 | | |
| 10 | .70 | 100.00 | | |

¹Survey responses weighted to population totals.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, U.S. Census Bureau, 2016 Current Population Survey Food Security Supplement.

Questions Used To Assess the Food Security of Households in the Current Population Survey (CPS)

1. “We worried whether our food would run out before we got money to buy more.” Was that often, sometimes, or never true for you in the last 12 months?
2. “The food that we bought just didn’t last and we didn’t have money to get more.” Was that often, sometimes, or never true for you in the last 12 months?
3. “We couldn’t afford to eat balanced meals.” Was that often, sometimes, or never true for you in the last 12 months?
4. In the last 12 months, did you or other adults in the household ever cut the size of your meals or skip meals because there wasn’t enough money for food? (Yes/No)
5. (If yes to question 4) How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?
6. In the last 12 months, did you ever eat less than you felt you should because there wasn’t enough money for food? (Yes/No)
7. In the last 12 months, were you ever hungry, but didn’t eat, because there wasn’t enough money for food? (Yes/No)
8. In the last 12 months, did you lose weight because there wasn’t enough money for food? (Yes/No)
9. In the last 12 months did you or other adults in your household ever not eat for a whole day because there wasn’t enough money for food? (Yes/No)
10. (If yes to question 9) How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?

(Questions 11-18 were asked only if the household included children age 0-17)

11. “We relied on only a few kinds of low-cost food to feed our children because we were running out of money to buy food.” Was that often, sometimes, or never true for you in the last 12 months?
12. “We couldn’t feed our children a balanced meal because we couldn’t afford that.” Was that often, sometimes, or never true for you in the last 12 months?
13. “The children were not eating enough because we just couldn’t afford enough food.” Was that often, sometimes, or never true for you in the last 12 months?
14. In the last 12 months, did you ever cut the size of any of the children’s meals because there wasn’t enough money for food? (Yes/No)
15. In the last 12 months, were the children ever hungry but you just couldn’t afford more food? (Yes/No)
16. In the last 12 months, did any of the children ever skip a meal because there wasn’t enough money for food? (Yes/No)
17. (If yes to question 16) How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?
18. In the last 12 months did any of the children ever not eat for a whole day because there wasn’t enough money for food? (Yes/No)

Frequency of Occurrence of Behaviors, Experiences, and Conditions That Indicate Food Insecurity

Most of the questions used to calculate the food security scale also elicit information about how often the food-insecure behavior, experience, or condition occurred. The food security scale does not take all of this frequency-of-occurrence information into account, but analysis of these responses can provide insight into the frequency and duration of food insecurity. Frequency-of-occurrence information is collected in the CPS Food Security Supplement using two different methods:

- **Method 1:** A condition is described, and the respondent is asked whether this was often, sometimes, or never true for his or her household during the past 12 months.
- **Method 2:** Respondents who answer “yes” to a yes/no question are asked, “How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?”

Table S-7 presents responses to each food security question broken down by reported frequency of occurrence for all households interviewed in the December 2016 survey. Questions using Method 1 are presented in the top panel of the table, and those using Method 2 are presented in the bottom panel. Most households that responded affirmatively to Method 1 questions reported that the behavior, experience, or condition occurred “sometimes,” while 14 to 26 percent (depending on the specific question) reported that it occurred “often.”

In response to Method 2 questions, conditional on affirming the general question, 25 to 36 percent of respondents reported that the behavior, experience, or condition occurred “in almost every month;” 41 to 56 percent reported that it occurred in “some months, but not every month;” and 19 to 28 percent reported that it occurred “in only 1 or 2 months.”

Table S-8 presents the same frequency-of-occurrence response statistics for households classified as having very low food security.

Table S-7

Frequency of occurrence of behaviors, experiences, and conditions indicating food insecurity reported by all U.S. households, 2016¹

| Condition ² | Ever during the year | Frequency of occurrence | | | |
|--|----------------------|-------------------------------|-----------|-----------------------------------|-----------|
| | | Often | Sometimes | Often | Sometimes |
| | | — Percent of all households — | | Percent of "ever during the year" | |
| Worried food would run out before (I/we) got money to buy more | 16.2 | 4.0 | 12.2 | 25 | 75 |
| Food bought didn't last and (I/we) didn't have money to get more | 13.3 | 2.8 | 10.5 | 21 | 79 |
| Couldn't afford to eat balanced meals | 12.9 | 3.3 | 9.5 | 26 | 74 |
| Relied on few kinds of low-cost food to feed child(ren) | 13.0 | 2.8 | 10.3 | 21 | 79 |
| Couldn't feed child(ren) balanced meals | 8.3 | 1.2 | 7.1 | 14 | 86 |
| Child(ren) were not eating enough | 3.6 | 0.5 | 3.1 | 14 | 86 |

| Condition ² | Frequency of occurrence | | | | | | |
|--|-------------------------------|--------------------|---------------------------------|-----------------------|-----------------------------------|---------------------------------|-----------------------|
| | Ever during the year | Almost every month | Some months but not every month | In only 1 or 2 months | Almost every month | Some months but not every month | In only 1 or 2 months |
| | — Percent of all households — | | | | Percent of "ever during the year" | | |
| Adult(s) cut size of meals or skipped meals | 7.5 | 2.5 | 3.2 | 1.8 | 34 | 43 | 23 |
| Respondent ate less than felt he/she should | 7.7 | 2.5 | 3.3 | 2.0 | 32 | 42 | 25 |
| Respondent hungry but didn't eat because couldn't afford | 4.0 | 1.4 | 1.7 | 0.9 | 36 | 42 | 21 |
| Respondent lost weight | 2.4 | NA | NA | NA | NA | NA | NA |
| Adult(s) did not eat for whole day | 1.7 | 0.6 | 0.7 | 0.4 | 36 | 41 | 23 |
| Cut size of child(ren)'s meals | 1.7 | 0.6 | 0.8 | 0.3 | 33 | 46 | 21 |
| Child(ren) were hungry | 1.0 | 0.3 | 0.5 | 0.3 | 27 | 45 | 28 |
| Child(ren) skipped meals | 0.6 | 0.2 | 0.3 | 0.1 | 25 | 56 | 19 |
| Child(ren) did not eat for whole day | 0.1 | NA | NA | NA | NA | NA | NA |

NA = Frequency of occurrence information was not collected for these conditions.

¹Survey responses weighted to population totals. Households not responding to an item or not responding to the followup question about frequency of occurrence are omitted from the calculation of percentages for that item. Households without children are omitted from the calculation of percentages for child-referenced items.

²The full wording of each question includes explicit reference to resource limitation, e.g., "...because (I was/we were) running out of money to buy food," or "...because there wasn't enough money for food."

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, U.S. Census Bureau, 2016 Current Population Survey Food Security Supplement.

Table S-8

Frequency of occurrence of behaviors, experiences, and conditions indicating food insecurity reported by households with very low food security, 2016¹

| Condition ² | Ever during the year | Frequency of occurrence | | | |
|--|----------------------|---------------------------------|-----------|-----------------------------------|-----------|
| | | Often | Sometimes | Often | Sometimes |
| | | —— Percent of all households —— | | Percent of “ever during the year” | |
| Worried food would run out before (I/we) got money to buy more | 98.2 | 50.2 | 48.0 | 51 | 49 |
| Food bought didn't last and (I/we) didn't have money to get more | 97.1 | 40.3 | 56.8 | 42 | 58 |
| Couldn't afford to eat balanced meals | 94.8 | 43.6 | 51.2 | 46 | 54 |
| Relied on few kinds of low-cost food to feed child(ren) | 92.9 | 33.5 | 59.4 | 36 | 64 |
| Couldn't feed child(ren) balanced meals | 80.8 | 19.8 | 61.0 | 24 | 76 |
| Child(ren) were not eating enough | 51.0 | 9.6 | 41.4 | 19 | 81 |

| Condition ² | Ever during the year | Frequency of occurrence | | | | | |
|--|----------------------|---------------------------------|---------------------------------|-----------------------|-----------------------------------|---------------------------------|-----------------------|
| | | Almost every month | Some months but not every month | In only 1 or 2 months | Almost every month | Some months but not every month | In only 1 or 2 months |
| | | —— Percent of all households —— | | | Percent of “ever during the year” | | |
| Adult(s) cut size of meals or skipped meals | 96.7 | 44.9 | 43.5 | 8.3 | 46 | 45 | 9 |
| Respondent ate less than felt he/she should | 95.1 | 43.7 | 39.6 | 11.8 | 46 | 42 | 12 |
| Respondent hungry but didn't eat because couldn't afford | 67.7 | 27.9 | 28.8 | 10.9 | 41 | 43 | 16 |
| Respondent lost weight | 44.1 | NA | NA | NA | NA | NA | NA |
| Adult(s) did not eat for whole day | 32.5 | 12.2 | 13.9 | 6.5 | 38 | 43 | 20 |
| Cut size of child(ren)'s meals | 29.8 | 11.6 | 14.0 | 4.2 | 39 | 47 | 14 |
| Child(ren) were hungry | 20.0 | 5.5 | 9.6 | 5.0 | 27 | 48 | 25 |
| Child(ren) skipped meals | 12.7 | 3.3 | 7.4 | 2.0 | 26 | 58 | 16 |
| Child(ren) did not eat for whole day | 3.2 | NA | NA | NA | NA | NA | NA |

NA = Frequency of occurrence information was not collected for these conditions.

¹Survey responses weighted to population totals. Households not responding to an item or not responding to the followup question about frequency of occurrence are omitted from the calculation of percentages for that item. Households without children are omitted from the calculation of percentages for child-referenced items.

²The full wording of each question includes explicit reference to resource limitation, e.g., “...because (I was/we were) running out of money to buy food,” or “...because there wasn't enough money for food.”

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, U.S. Census Bureau, 2016 Current Population Survey Food Security Supplement.

Monthly and Daily Occurrence of Food-Insecure Conditions

Respondents also reported whether the behaviors and experiences that indicate food insecurity had occurred during the 30 days prior to the survey. For seven of these behaviors and experiences, respondents also reported how many days the condition had occurred during that period. Responses to these questions are summarized in table S-9.⁶

No direct measure of the daily prevalence of very low food security has yet been developed. However, the ratio of daily prevalence to monthly prevalence of the various indicator conditions provides a basis for approximating the average daily prevalence of very low food security during the reference 30-day period. For adult-referenced items, the daily prevalence is calculated by multiplying the 30-day prevalence of the condition by the number of days on which that experience occurred, and dividing that product by 30 to get the average daily prevalence of each condition. The estimate of the daily prevalence of very low food security was based on the calculation of the average daily prevalence for the two conditions with the highest and lowest ratio of the daily prevalence divided by the monthly prevalence.

For the adult-referenced items, daily prevalence ranged from 22 to 33 percent of their prevalence at any time during the month (analysis not shown, based on table S-9). The corresponding range for daily prevalence of the child-referenced items was 24 to 29 percent of monthly prevalence. These findings are generally consistent with those of Nord et al. (2000) and are used to estimate upper and lower bounds of the daily prevalence of very low food security described in *Household Food Security in the United States in 2016* (ERR-237).

⁶Average daily prevalence is calculated as the product of the 30-day prevalence and the average number of days divided by 30.

Table S-9

Monthly and daily occurrence of behaviors, experiences, and conditions indicating food insecurity reported by all U.S. households, 2016¹

| Condition ² | For households reporting condition at any time during previous 30 days | | | | | Average daily prevalence | |
|--|--|--|-----------|------------|----------------------------|--------------------------|----------------------|
| | Ever during previous 30 days | Number of days out of previous 30 days | | | Monthly average occurrence | Average daily prevalence | |
| | | 1- 7 days | 8-14 days | 15-30 days | | Days ³ | Percent ³ |
| | | Percent ³ | | | Days ³ | Percent ³ | |
| Worried food would run out before (I/we) got money to buy more | 7.51 | NA | NA | NA | NA | NA | NA |
| Food bought didn't last and (I/we) didn't have money to get more | 6.70 | NA | NA | NA | NA | NA | NA |
| Couldn't afford to eat balanced meals | 7.28 | NA | NA | NA | NA | NA | NA |
| Relied on few kinds of low-cost food to feed child(ren) | 4.97 | 70 | 13 | 17 | 7.6 | 1.26 | |
| Couldn't feed child(ren) balanced meals | 4.58 | 58 | 16 | 26 | 9.8 | 1.49 | |
| Child(ren) were not eating enough | 2.57 | 59 | 16 | 25 | 9.6 | 0.82 | |
| Adult(s) cut size of meals or skipped meals | 1.62 | NA | NA | NA | NA | NA | NA |
| Respondent ate less than felt he/she should | 1.16 | 75 | 9 | 16 | 6.5 | 0.25 | |
| Respondent hungry but didn't eat because couldn't afford | 6.92 | NA | NA | NA | NA | NA | NA |
| Respondent lost weight | 4.67 | NA | NA | NA | NA | NA | NA |
| Adult(s) did not eat for whole day | 2.02 | NA | NA | NA | NA | NA | NA |
| Cut size of child(ren)'s meals | 1.19 | 69 | 13 | 18 | 7.4 | 0.29 | |
| Child(ren) were hungry | 0.63 | 65 | 14 | 21 | 7.8 | 0.16 | |
| Child(ren) skipped meals | 0.38 | 60 | 8 | 32 | 8.8 | 0.11 | |
| Child(ren) did not eat for whole day | 0.11 | NA | NA | NA | NA | NA | NA |

NA = Number of days of occurrence was not collected for these conditions.

¹Survey responses weighted to population totals. The 30-day and daily statistics refer to the 30-day period from mid-November to mid-December; the survey was conducted during the week of December 11-20, 2016.

²The full wording of each question includes explicit reference to resource limitation, e.g., "...because (I was/we were) running out of money to buy food," or "...because there wasn't enough money for food."

³Households without children are excluded from the denominator of child-referenced items.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, U.S. Census Bureau, 2016 Current Population Survey Food Security Supplement.

Food Spending by Food-Secure and Food-Insecure Households

Food-secure households typically spent more on food than food-insecure households of similar age-gender composition. The pattern of higher median food spending relative to the cost of the Thrifty Food Plan by food-secure households was consistent across household structure, race and Hispanic ethnicity, income, residence, and geographic region (table S-10).

Table S-10

**Weekly household food spending relative to the cost of the Thrifty Food Plan (TFP)
by food security status and selected household characteristics, 2016**

| Category | Median weekly food spending relative to TFP ¹ | |
|---|--|---------------|
| | Food secure | Food insecure |
| | <i>Ratio (cost of TFP = 1.0)</i> | |
| All households | 1.29 | 1.00 |
| Household composition: | | |
| With children < 18 yrs | 1.16 | 0.96 |
| At least one child < 6 yrs | 1.17 | 1.00 |
| Married-couple families | 1.21 | 0.95 |
| Female head, no spouse | 1.06 | 0.96 |
| Male head, no spouse | 1.10 | 0.94 |
| Other household with child ² | 1.02 | NA |
| With no children < 18 yrs | 1.35 | 1.08 |
| More than one adult | 1.25 | 0.91 |
| Women living alone | 1.39 | 1.12 |
| Men living alone | 1.72 | 1.18 |
| With elderly | 1.21 | 0.94 |
| Elderly living alone | 1.35 | 1.12 |
| Race/ethnicity of households: | | |
| White, non-Hispanic | 1.35 | 1.03 |
| Black, non-Hispanic | 1.11 | 0.94 |
| Hispanic ³ | 1.15 | 1.00 |
| Other, non-Hispanic | 1.26 | 1.00 |
| Household income-to-poverty ratio: | | |
| Under 1.00 | 0.97 | 0.92 |
| Under 1.30 | 0.99 | 0.92 |
| Under 1.85 | 1.05 | 0.96 |
| 1.85 and over | 1.40 | 1.15 |
| Income unknown | 1.21 | 0.96 |
| Area of residence: ⁴ | | |
| Inside metropolitan area | 1.31 | 1.02 |
| In principal cities ⁵ | 1.33 | 1.04 |
| Not in principal cities | 1.32 | 1.00 |
| Outside metropolitan area | 1.15 | 0.97 |
| Census geographic region: | | |
| Northeast | 1.33 | 1.12 |
| Midwest | 1.21 | 0.99 |
| South | 1.26 | 0.96 |
| West | 1.32 | 1.02 |

Note: These estimates are based on categorical food spending data rather than continuous data that were used in previous years. Beginning with the 2015 Current Population Survey Food Security Supplement, food spending amounts are categorized in public-use data. ERS analysis suggests that this change has little effect on the estimates of median food spending reported here.

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 or reported zero usual food spending and those that did not provide valid responses to any of the questions on food security. These exclusions represented 9 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 residence is based on 2013 Office of Management and Budget delineation. Prevalence rates by area of residence are comparable with those for 2014 and 2015 but are not precisely comparable with those of earlier years.

⁵Households within incorporated areas of the largest cities in each metropolitan area. Residence inside or outside of principal cities is not identified for about 15 percent of households in metropolitan statistical areas.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, U.S. Census Bureau, 2016 Current Population Survey Food Security Supplement.

Use of Food Pantries and Emergency Kitchens

The December 2016 CPS food security survey included questions about the use of two types of community-based food and nutrition assistance programs (see box below, “Community Food and Nutrition Assistance Programs,” for descriptions of these facilities). All households with incomes below 185 percent of the Federal poverty threshold were asked these questions. To minimize the burden on respondents, households with incomes above that range were not asked the questions unless they indicated some level of difficulty in meeting their food needs on preliminary screener questions. The questions analyzed in this supplement are:

- “In the last 12 months, did you or other adults in your household ever get emergency food from a church, a food pantry, or food bank?” The use of these resources any time during the last 12 months is referred to as “food pantry use.” Households that reported using a food pantry in the last 12 months were asked, “How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?” Households reporting that they did not use a food pantry in the last 12 months were asked, “Is there a church, food pantry, or food bank in your community where you could get emergency food if you needed it?”
- “In the last 12 months, did you or other adults in your household ever eat any meals at a soup kitchen?” The use of this resource is referred to as “use of an emergency kitchen” in the following discussion.

Table S-11 presents estimates of the number of households that obtained emergency food from food pantries or ate at an emergency kitchen one or more times during the 12-month period ending in December 2016. Estimates of the proportion of households using emergency kitchens based on the CPS food security surveys almost certainly understate the proportion of the population that actually uses these providers. The CPS selects households to interview from an address-based list and, therefore, interviews only persons who occupy housing units. People who are homeless at the time of

Community Food and Nutrition Assistance Programs

Food pantries and emergency kitchens are the main direct providers of emergency food assistance. These agencies are locally based and rely heavily on volunteers. The majority of them are affiliated with faith-based organizations (see Ohls et al., 2002, for more information). Most of the food distributed by food pantries and emergency kitchens comes from local resources, but USDA supplements these resources through The Emergency Food Assistance Program (TEFAP). In fiscal year 2016, TEFAP supplied 834.1 million pounds of commodities to community emergency food providers. Over half of all food pantries and emergency kitchens received TEFAP commodities in 2000, and these commodities accounted for about 14 percent of all food distributed by them (Ohls et al., 2002). Pantries and kitchens play different roles, as follows:

- Food pantries distribute unprepared foods for offsite use. An estimated 32,737 pantries operated in 2000 (the last year for which nationally representative statistics are available) and distributed, on average, 239 million pounds of food per month. Households using food pantries received an average of 38.2 pounds of food per visit.
- Emergency kitchens (sometimes referred to as soup kitchens) provide individuals with prepared food to eat at the site. In 2000, an estimated 5,262 emergency kitchens served a total of 474,000 meals on an average day.

the survey are not included in the sample, and those in tenuous housing arrangements (for instance, temporarily doubled-up with another family) also may have been missed. These two factors—exclusion of the homeless and underrepresentation of those who are tenuously housed—bias estimates of emergency kitchen use downward, especially among certain subgroups of the population. This is much less true for food pantry users because they need cooking facilities to make use of most items from a food pantry.⁷

The food security of low-income households that used food pantries and emergency kitchens is compared with that of low-income households that did not use those facilities in table S-12.

Use of food pantries by household composition, race and Hispanic ethnicity, income, and residence is provided in table S-13.

Table S-11

Use of food pantries and emergency kitchens, 2016

| Category | Pantries | | | Kitchens | | |
|--|--------------------|--------|---------|--------------------|-------|---------|
| | Total ¹ | Users | Percent | Total ¹ | Users | Percent |
| | 1,000 | 1,000 | | 1,000 | 1,000 | |
| All households | 125,950 | 6,056 | 4.8 | 125,905 | 754 | 0.6 |
| All persons in households | 317,815 | 15,963 | 5.0 | 317,544 | 1,519 | 0.5 |
| Adults in households | 244,409 | 10,920 | 4.5 | 244,269 | 1,197 | 0.5 |
| Children in households | 73,406 | 5,043 | 6.9 | 73,275 | 322 | 0.4 |
| Households by food security status: | | | | | | |
| Food-secure households | 110,574 | 1,996 | 1.8 | 110,537 | 210 | 0.2 |
| Food-insecure households | 15,312 | 4,051 | 26.5 | 15,300 | 532 | 3.5 |
| Households with low food security | 9,284 | 1,888 | 20.3 | 9,267 | 174 | 1.9 |
| Households with very low food security | 6,027 | 2,164 | 35.9 | 6,033 | 358 | 5.9 |

¹Totals exclude households that did not answer the question about food pantries or emergency kitchens. Totals in the bottom section also exclude households that did not answer any of the questions in the food security scale.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, U.S. Census Bureau, 2016 Current Population Survey Food Security Supplement.

Table S-12

Prevalence of food security and food insecurity of households with annual incomes less than 185 percent of the poverty line, by use of food pantries and emergency kitchens, 2016

| Category | Food secure | Food insecure | |
|--|-------------|---------------|-----------------------------|
| | | All | With very low food security |
| | | Percent | |
| Income less than 185 percent of poverty line: | | | |
| Received emergency food from food pantry previous 12 months | 32.5 | 67.5 | 30.8 |
| Did not receive emergency food from food pantry previous 12 months | 75.2 | 24.8 | 16.0 |
| Ate meal at emergency kitchen previous 12 months | 32.7 | 67.3 | 21.4 |
| Did not eat meal at emergency kitchen previous 12 months | 69.3 | 30.7 | 18.2 |

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, U.S. Census Bureau, 2016 Current Population Survey Food Security Supplement.

⁷Previous studies of emergency kitchen users and food pantry users confirm these assumptions. For example, a nationally representative survey of people who use food pantries and emergency kitchens found that about 36 percent of emergency kitchen clients and 8 percent of households that received food from food pantries were homeless in 2001 (Briefel et al., 2003).

Table S-13

Use of food pantries, by selected household characteristics, 2016

| Category | Total ¹ | Pantry users | |
|---|--------------------|--------------|----------------|
| | <i>1,000</i> | <i>1,000</i> | <i>Percent</i> |
| All households | 125,950 | 6,056 | 4.8 |
| Household composition: | | | |
| With children < 18 yrs | 38,201 | 2,367 | 6.2 |
| At least one child < 6 yrs | 16,474 | 1,085 | 6.6 |
| Married-couple families | 24,922 | 833 | 3.3 |
| Female head, no spouse | 9,719 | 1,251 | 12.9 |
| Male head, no spouse | 3,045 | 232 | 7.6 |
| Other household with child ² | 515 | 52 | 10.1 |
| With no children < 18 yrs | 87,749 | 3,689 | 4.2 |
| More than one adult | 52,252 | 1,582 | 3.0 |
| Women living alone | 19,558 | 1,199 | 6.1 |
| Men living alone | 15,940 | 908 | 5.7 |
| With elderly | 36,180 | 1,230 | 3.4 |
| Elderly living alone | 13,473 | 568 | 4.2 |
| Race/ethnicity of households: | | | |
| White, non-Hispanic | 83,911 | 3,001 | 3.6 |
| Black, non-Hispanic | 15,837 | 1,546 | 9.8 |
| Hispanic ³ | 16,925 | 1,151 | 6.8 |
| Other, non-Hispanic | 9,277 | 358 | 3.9 |
| Household income-to-poverty ratio: | | | |
| Under 1.00 | 13,779 | 2,796 | 20.3 |
| Under 1.30 | 18,313 | 3,429 | 18.7 |
| Under 1.85 | 28,739 | 4,391 | 15.3 |
| 1.85 and over | 67,724 | 826 | 1.2 |
| Income unknown | 29,488 | 839 | 2.8 |
| Area of residence: ⁴ | | | |
| Inside metropolitan area | 107,737 | 4,814 | 4.5 |
| In principal cities ⁵ | 37,020 | 1,959 | 5.3 |
| Not in principal cities | 54,189 | 1,911 | 3.5 |
| Outside metropolitan area | 18,214 | 1,243 | 6.8 |
| Census geographic region: | | | |
| Northeast | 22,523 | 867 | 3.8 |
| Midwest | 27,228 | 1,596 | 5.9 |
| South | 47,846 | 2,194 | 4.6 |
| West | 28,353 | 1,399 | 4.9 |

¹Totals exclude households that did not answer the question about getting food from a food pantry. These exclusions represented 0.7 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 residence is based on 2013 Office of Management and Budget delineation. Prevalence rates by area of residence are comparable with those for 2014 and 2015 but are not precisely comparable with those of earlier years.

⁵Households within incorporated areas of the largest cities in each metropolitan area. Residence inside or outside of principal cities is not identified for about 15 percent of households in metropolitan statistical areas.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, U.S. Census Bureau, 2016 Current Population Survey Food Security Supplement.

Food Spending by Households That Received Food and Nutrition Assistance

Median food spending relative to the cost of the Thrifty Food Plan by households that received food and nutrition assistance and by nonrecipient households in similar low-income ranges is presented in table S-14.⁸

Table S-14

Weekly household food spending relative to the cost of the Thrifty Food Plan (TFP) by participation in selected Federal and community food and nutrition assistance programs, 2016

| Category | Median weekly food spending relative to cost of the TFP |
|--|---|
| | <i>Ratio</i> (cost of TFP = 1.0) |
| Income less than 130 percent of poverty line: | |
| Received SNAP ¹ benefits previous 30 days | 0.91 |
| Did not receive SNAP ¹ benefits previous 30 days | 1.00 |
| Income less than 185 percent of poverty line; school-age children in household: | |
| Received free or reduced-price school lunch previous 30 days | 0.89 |
| Did not receive free or reduced-price school lunch previous 30 days | 0.94 |
| Income less than 185 percent of poverty line; children under age 5 in household: | |
| Received WIC ² previous 30 days | 0.91 |
| Did not receive WIC ² previous 30 days | 0.98 |
| Income less than 185 percent of poverty line: | |
| Received emergency food from food pantry previous 12 months | 0.90 |
| Did not receive emergency food from food pantry previous 12 months | 1.04 |

Note: These estimates are based on categorical food spending data rather than continuous data that were used in previous years. Beginning with the 2015 Current Population Survey Food Security Supplement, food spending amounts are categorized in public-use data. ERS analysis suggests that this change has little effect on the estimates of median food spending reported here.

¹SNAP = Supplemental Nutrition Assistance Program, formerly called the Food Stamp Program.

²WIC = Special Supplemental Nutrition Program for Women, Infants, and Children.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, U.S. Census Bureau, 2016 Current Population Survey Food Security Supplement.

⁸Food purchased with SNAP (Supplemental Nutrition Assistance Program, formerly the Food Stamp Program) benefits is included in household food spending as calculated here. However, the value of school lunches and food obtained through WIC (Special Supplemental Nutrition Program for Women, Infants, and Children) is not included. Food from these sources supplemented the food purchased by many of these households.

Food Security During the 30 Days Prior to the Food Security Survey in Households That Received Food and Nutrition Assistance

Table S-15 presents prevalence rates of food insecurity and very low food security during the 30-day period just prior to the food security survey for households that received selected types of food and nutrition assistance and for nonrecipient households in similar low-income ranges. This complements table 8 of *Household Food Security in the United States in 2016* (ERR-237), which is based on the 12-month measure. Measured food insecurity and reported use of food and nutrition assistance programs are more likely to refer to contemporaneous conditions when both are referenced to the previous 30 days than when one or both are referenced to the previous 12 months.

Table S-15

Prevalence of food insecurity during the 30 days prior to the food security survey, by participation in selected Federal and community food and nutrition assistance programs, 2016¹

| Category | Food insecurity (low or very low food security) | Very low food security |
|---|---|---------------------------|
| | Percent | |
| Income less than 130 percent of poverty line: | | |
| Received SNAP ² benefits previous 30 days | 31.4 | 14.0 |
| Received SNAP ² benefits in every month during the previous 12 months | 31.0 | 13.7 |
| Received SNAP ² benefits previous 12 months but not previous 30 days (SNAP leavers) | 30.6 | 15.2 |
| Did not receive SNAP ² benefits previous 12 months | 13.5 | 6.4 |
| Income less than 185 percent of poverty line; school-age children in household: | | |
| Received free or reduced-price school lunch previous 30 days | 24.7 | 8.6 |
| Did not receive free or reduced-price school lunch previous 30 days | 12.1 | 3.4 |
| Income less than 185 percent of poverty line; children under age 5 in household: | | |
| Received WIC ³ previous 30 days | 22.8 | 8.0 |
| Did not receive WIC ³ previous 30 days | 14.6 | 4.0 |
| Income less than 185 percent of poverty line: | | |
| Received emergency food from food pantry previous 30 days | 53.1 | 31.1 |
| Did not receive emergency food from food pantry previous 30 days | 14.6 | 5.9 |

¹The 30-day prevalence rates refer to the 30-day period from mid-November to mid-December; the survey was conducted during the week of December 11-20, 2016. The number of interviewed households reporting use of emergency kitchens during the previous 30 days was too small to provide reliable food security prevalence estimates.

²SNAP = Supplemental Nutrition Assistance Program, formerly the Food Stamp Program.

³WIC = Special Supplemental Nutrition Program for Women, Infants, and Children.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, U.S. Census Bureau, 2016 Current Population Survey Food Security Supplement.

Combined Use of Federal and Community Food and Nutrition Assistance

Both Federal and community food and nutrition assistance programs are important resources for low-income households. To design and manage these programs so that they function together effectively as a nutrition safety net, it is important to know how they complement and supplement each other. The extent to which households that participate in Federal food and nutrition assistance programs also receive assistance from community food assistance programs provides information about these relationships (table S-16).

Table S-16

Combined use of Federal and community food and nutrition assistance programs by low-income households,¹ 2016

| Category | Share of category that obtained food from food pantry | Share of food pantry users in category | Share of category that ate meal at emergency kitchen | Share of emergency kitchen users in category |
|--|---|--|--|--|
| | <i>Percent</i> | | | |
| Received SNAP ² benefits previous 30 days | 29.7 | 53.0 | 4.0 | 58.1 |
| Received free or reduced-price school lunch previous 30 days | 20.9 | 29.5 | 1.4 | 15.8 |
| Received WIC ³ previous 30 days | 21.7 | 10.2 | NA | NA |
| Participated in one or more of the three Federal programs | 24.5 | 65.3 | 2.9 | 62.5 |
| Did not participate in any of the three Federal programs | 9.0 | 34.8 | 1.2 | 37.5 |

NA = Not reported; fewer than 10 households in the survey reported receipt of WIC and use of an emergency kitchen.

¹Analysis is restricted to households with annual incomes less than 185 percent of the poverty line because most households with incomes above that range were not asked whether they participated in food assistance programs.

²SNAP = Supplemental Nutrition Assistance Program, formerly the Food Stamp Program.

³WIC = Special Supplemental Nutrition Assistance Program for Women, Infants, and Children.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, U.S. Census Bureau, 2016 Current Population Survey Food Security Supplement.

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